# HUGUENOT MEMORIAL PARK MANAGEMENT PLAN

Prepared by:
City of Jacksonville
214 N. Hogan Street, 4th Floor
Jacksonville, Florida 32202

**Advisory Group Draft: November 21, 2024**

## MANAGEMENT PLAN EXECUTIVE SUMMARY

**LEAD AGENCY:** City of Jacksonville, FL
**COMMON NAME OF PROPERTY:** Huguenot Memorial Park (Huguenot)
**LOCATION**: Northeast Duval County
**ACREAGE TOTAL:** 325 acres (245 acres State-owned & 80 acres Federal-owned)
**ACREAGE BREAKDOWN:**

| Natural Community | Acres |
|---|---|
| Salt marsh | 19 |
| Coastal grassland | 8 |
| Beach dune | 17 |
| Coastal strand | 152 |
| Maritime Hammock | 10 |
| Unconsolidated substrate | 119 |

**LEASE/MANAGEMENT AGREEMENT NO.**: Board of Trustees Lease #4790
Dept. of the Army Lease #DACW17-1-13-0002

**USE:** Single:
Multiple: X

Management Responsibilities:

| Agency | Responsibilities |
|---|---|
| USACE | Partial owner (80 acres) |
| DEP/Trustees | Partial owner (245 acres) |
| City of Jacksonville | Manager |

**DESIGNATED LAND USE**: Conservation
**SUBLEASES**: None
**ENCUMBRANCES**:
**TYPES OF ACQUISITION**: Preservation 2000, City of Jacksonville funds, and Mitigation Donation
**UNIQUE FEATURES**: This property offers scenic vistas of both the Atlantic Ocean and the St. Johns River while providing public beach access to enjoy the onsite resources.
**CULTURAL AND HISTORICAL RESOURCES:** Four documented cultural sites
**MANAGEMENT NEEDS:** Habitat improvement, listed species protection, public access and recreation management
**ACQUISITION NEEDS/ACREAGE:** None
**SURPLUS LANDS/ACREAGE:** None
**PUBLIC INVOLVEMENT**: 11/19/2024 Public Meeting & 11/21/2024 Advisory Group Meeting

DO NOT WRITE BELOW THIS LINE (FOR DIVISION OF STATE LANDS USE ONLY)
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ARC Approval Date: _____ BTIITF Approval Date: _____
Comments:
_____
_____

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# 1. Introduction and General Information

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.

Huguenot 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). The State lease agreement (Lease Agreement No. 4790) conveys management authority for Huguenot and Alimacani Park to the City of Jacksonville. The lease with the U.S. Army Corps of Engineers (Lease No. DACW17-1-13-0002) conveys management authority for its ownership of Huguenot to the City of Jacksonville. In 2008 with funding assistance from Florida Communities Trust, the City acquired 13 acres immediately adjacent to the western boundary of Huguenot and is called the Hughes-parcel and Fisherman Point which is managed as an extension of the park.

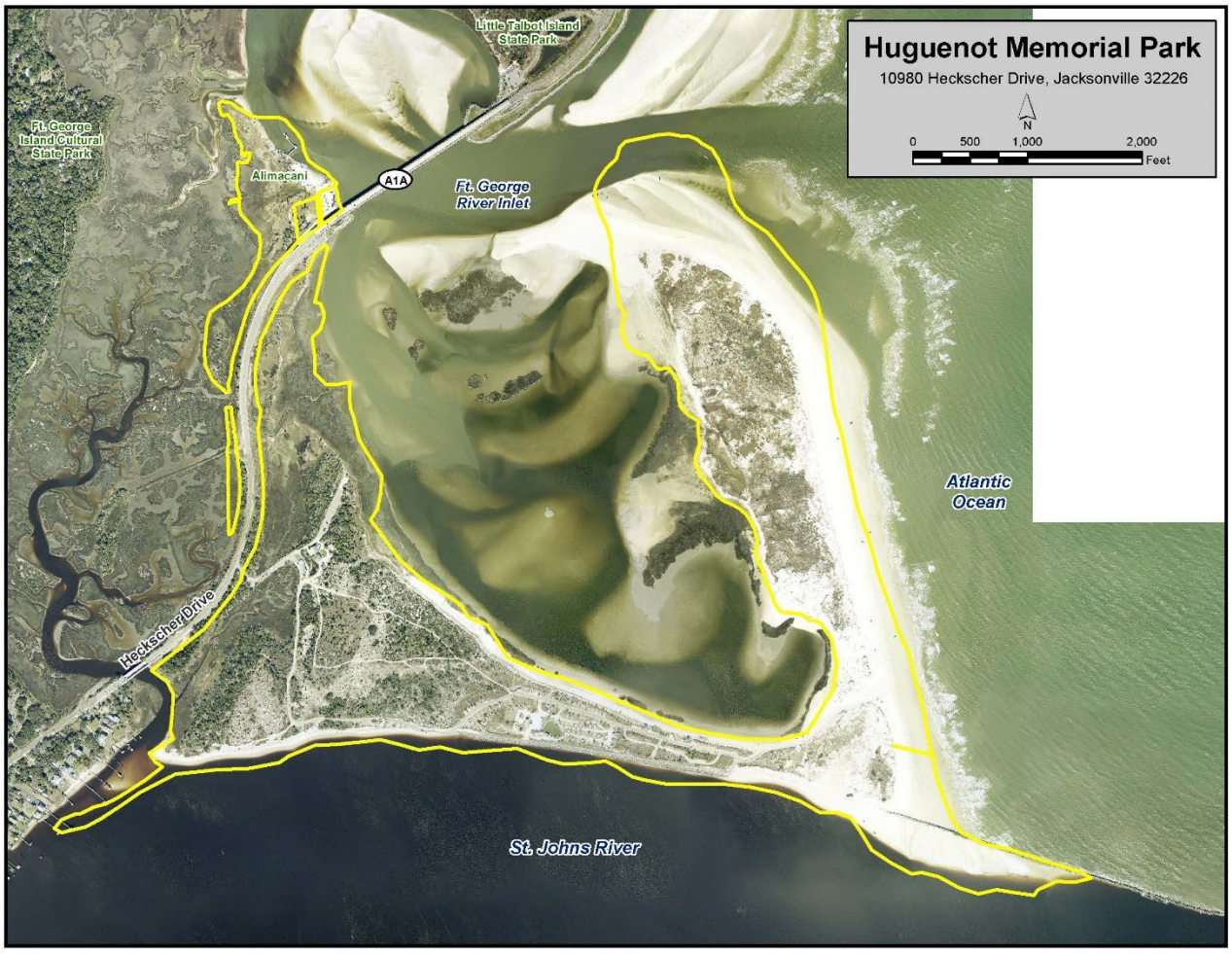
The property has been used by the local community long before the State's acquisition and, over the years, has been commonly referred to as "Wards Bank," "North Jetty," "Ft. George Inlet," "Xalvis Island," and "Shell Point." However, for consistency and clarity throughout this management plan, the site will be referred to as "Huguenot Memorial Park" or "Huguenot." This plan addresses the State, Federal and City-owned lands that make up the park since they are collectively managed as one unified park by the City.

This management plan also includes Alimacani Park and Boat Ramp (Alimacani) which is managed by the City and partially owned by the State and included in the same lease agreement with Huguenot. Alimacani includes two, small City-owned parcels located on the north side Heckscher Drive which were previously a private campground and fish camp/restaurant for many years until it was acquired by the City of Jacksonville in 2002.

See Figure 1 for the Boundary Map on a 2023 aerial.

This document provides guidelines for land management activities to be implemented at Huguenot over the next ten years. This is a revision of the land management plan approved in 2008 by the Acquisition and Restoration Council.

## Figure 1 – Boundary Map – 2023 Imagery



## 1.1 Location

Huguenot is located in Jacksonville, Florida, east of Interstate 95 and Interstate 295, off of Heckscher Drive within Section 20/37, Township 1S, Range 29E. The park is an L-shaped peninsula surrounded by the St. Johns River, Ft. George Inlet, and Atlantic Ocean. Huguenot 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 which was formed in 1999.

See Figure 2 for the Vicinity Map showing the park location and surrounding conservation lands.

## 1.2 Acquisition

The State acquired portions of the property in 1943 and 1944 and conveyed it to the Florida Board of Parks and Historic Memorials in 1953 for use as a State Park. However, the Florida Department of Natural Resources declared the land surplus in 1974. Then, on January 29, 1979, the State of Florida, Board of Trustees of the Internal Improvement Trust Fund conveyed management authority to the City of Jacksonville which has managed it ever since as a public recreation area. Following the State lease in 1979, the Department of Army leased the remaining portion of the park to the City of Jacksonville beginning on June 1, 1980 which consisted of the jetty area and the accreted land to the north of the jetty.

See Figure 3 for the Ownership Map showing the different parcels that make up Huguenot and Alimacani. And, Appendices A and B contain the State and USACE leases, respectively.

## 1.3 Title Interest and Encumbrances

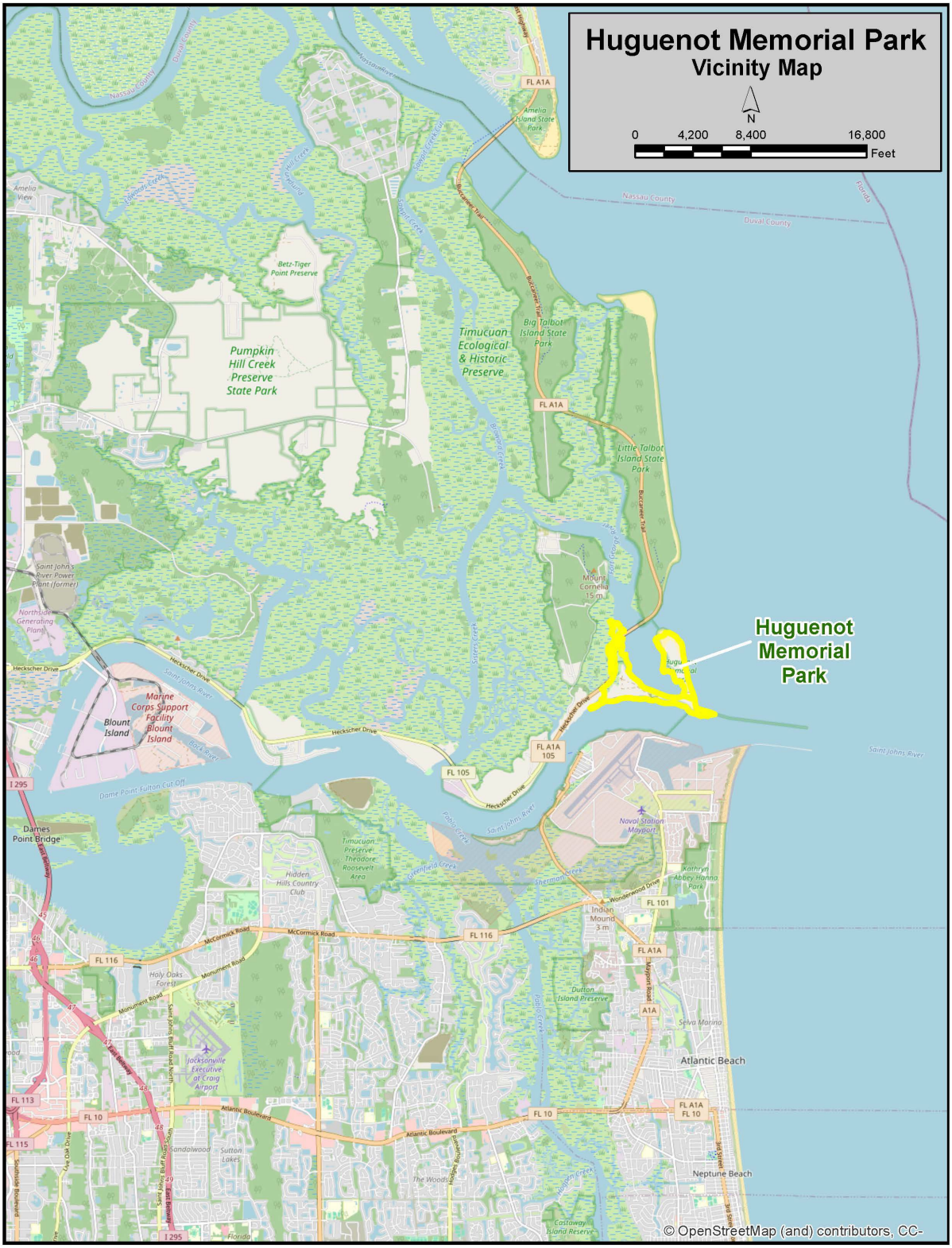
Title interest in Huguenot is divided by two separate ownerships. The State solely owns 245 acres composed of Parcel ID #168211-0000, 169239-0000 & 168189-0000. And, the Department of Army solely owns the 80-acre jetty area which is Parcel ID #168212-0000.

Encumbrances include a 1968 perpetual spoil easement granted to the United States of America.

## 1.4 Proximity to Other Public Lands

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; Cedar Point Preserve; and, Ft. Caroline National Memorial are connected by waterways to Huguenot. In addition, Huguenot and Alimacani are within the boundaries of the Timucuan Ecological and Historic Preserve, the Timucuan Trails State and National Parks partnership area, and the Nassau-St. Johns River Aquatic Preserve.

## Figure 2 – Vicinity Map



## Figure 3 – Ownership Map

## 1.5 Adjacent Land Uses

The property is bordered by open water to the east, south, and north, with State Road A1A crossing 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. To the south, is the federal commercial shipping channel of St. Johns River and Naval Station Mayport. None of the existing adjacent land uses conflict with the planned use of the property.

## 1.6 Public Involvement

A noticed public meeting was held on November 19, 2024, at Oceanway Community Center. The meeting agenda included an overview of the property and highlights of management accomplishments.

This plan was prepared with input from the Huguenot Memorial Park Management Advisory Group. This meeting was conducted on November 21, 2024, at the Oceanway Community Center. The Advisory Group consisted of representatives from:

- City of Jacksonville Parks, Recreation and Community Services Department
- City of Jacksonville Councilmember for District 2
- Duval Soil and Water Conservation Commission
- Florida Fish and Wildlife Conservation Commission
- Florida Forest Service
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- National Park Service
- Florida Park Service
- Florida Audubon Society
- Recreational user groups
- Adjacent Private Property Owner
- Timucuan Parks Foundation
- Jacksonville Sheriff's Office

The public hearing notice as well as summary of the feedback from the public meeting and Advisory Group are contained in Appendix C. The Acquisition and Restoration Council (ARC) public hearing and meeting provide an additional forum for public input and review.

# 2. Natural and Cultural Resources

## 2.1 Physiography

a. Physiography/Mineral Resources

Huguenot is within the Barrier Island Sequence District regional geomorphological unit that extends from Georgia to Lake Okeechobee in eastern Florida. Beach ridges, dunes and paleo-lagoons are characteristic of this unit. It can be subdivided into terrains and the site is within the Lower St. Johns River Valley terrain.

There are no known outstanding mineral resources on this property.

b. 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. In 2017 Hurricane Matthew impacted the topography eroding away two hundred fifty feet of primary dunes from zones 11 – 12 and another major Hurricane Irma in 2018 took another fifty feet. See Figure 4 for the Topography Map.

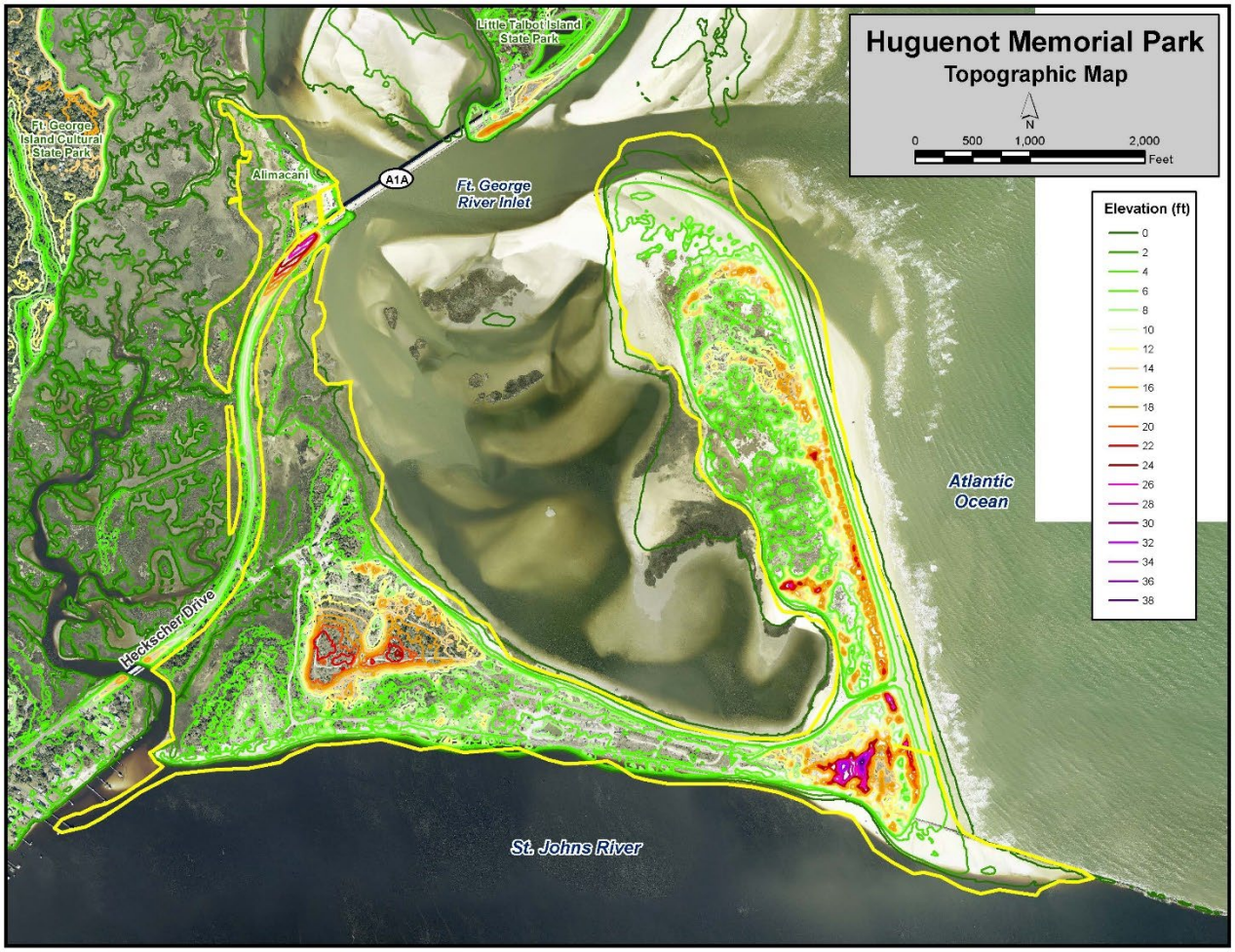
c. Soils

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

- Aquic Quartzipsamments, zero to two percent slopes (06)
- Arents, nearly level (07)
- Beaches, very frequently flooded (10)
- Leon fine sand, zero to two percent slopes, very frequently flooded (33)
- Newhan-Corolla, rarely flooded, complex, gently undulating to hilly, two to 20 percent slopes (42)
- Tisonia mucky peat, zero to one percent slopes, very frequently flooded (68)

Arents, Tisonia and Mandarin are also found on Alimacani. A Soils Map is contained in Figure 5 and Appendix D contains soil descriptions from the Duval County Soil Survey.

## Figure 4 – Topography Map



2.2 Natural Communities

The majority of the site is comprised of coastal strand and unconsolidated substrate while also containing beach dune, coastal grassland, maritime hammock, and salt marsh. 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 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 following is a brief description of the communities and the general management objectives for each. Figure 6 contains the Natural Communities Map.

Following are natural community descriptions of Huguenot following the Florida Natural Areas Inventory (FNAI) classification system (FNAI, 2010).

**Coastal Strand (152 acres)**

This community type is characterized as evergreen shrub community growing on stabilized coastal dunes with sand substrate often with a smooth canopy due to pruning by salt spray. This xeric community provides important habitat for many listed wildlife species and should be considered an "environmentally sensitive area." This community type has been listed as imperiled G3/S2 by FNAI.

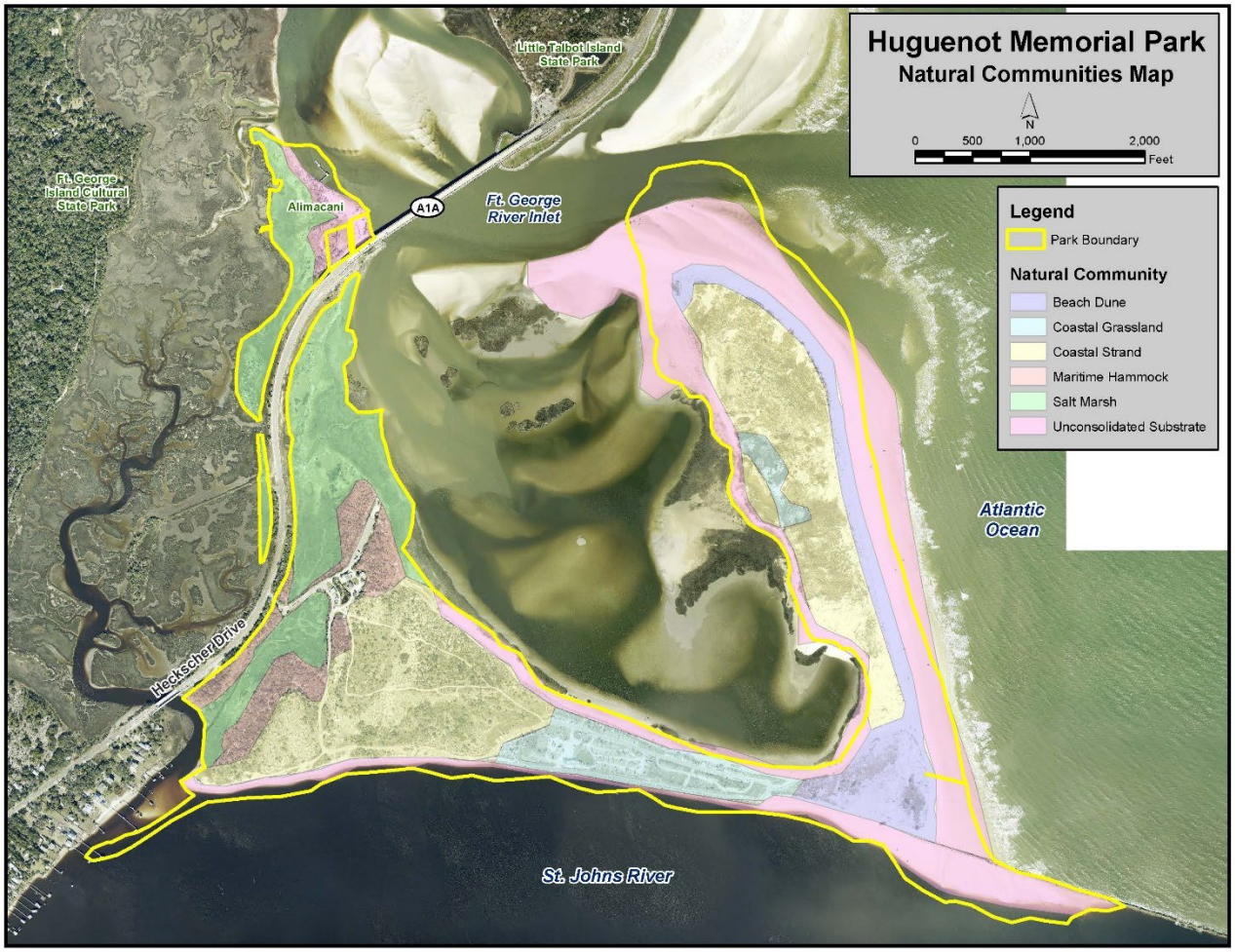
The coastal strand located outside of the developed areas of the property contain native landscapes in excellent natural condition. The majority of the sand spit peninsula of Huguenot has also been designated as a Critical Wildlife Area (CWA) by the FWC and public access to this area is prohibited, except for the immediate beachfront waterward of the frontal dune. This access restriction 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.

**Unconsolidated Substrate (119 acres)**

Marine and Estuarine Unconsolidated Substrates are mineral-based natural communities generally characterized as expansive, relatively open areas of subtidal, intertidal, and

# Figure 5 – Soils Map

## Figure 6 – Natural Communities Map



supratidal zones which lack dense populations of sessile plant and animal species. This community is composed primarily of loose sand and shell which supports a large population of infaunal organisms as well as a variety of transient planktonic and pelagic organisms.

At Huguenot, this community type wraps around the entire property shoreline. The park contains approximately 6000 linear feet of beach front along the Atlantic Ocean as well as 7000 linear feet of shoreline along the St. Johns River, and over 10,000 linear feet along the Ft. George Inlet.

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.

**Beach Dune (17 acres)**

Beach Dune is an active coastal dune composed of sand substrate with open herbaceous vegetation and no canopy. This community is usually built by sea oats (*Uniola paniculata*), a perennial rhizomatous grass, whose stems trap the sand grains blown off the beach, building up the dune by growing upward to keep pace with sand burial. Other coastal specialist plants in this community include railroad vine, bitter panicum, and/or mixed salt-spray tolerant grasses and herbs. Throughout the property, beach dunes act as a protective barrier against wave and tidal action. This community type has been listed as imperiled G3/S2 by FNAI.

Huguenot's large dune system is primarily found along the Atlantic Ocean shoreline and located just landward of the Unconsolidated Substrate. Beach dunes and dune vegetation are highly sensitive to human disturbance and could become destabilized, which in turn, can affect the natural communities behind the dune. The beach dune, along with the coastal strand, provide valuable habitat for nesting shorebirds.

**Coastal Grassland (8 acres)**

Coastal grassland is a predominantly herbaceous community occupying the drier portions of the transition zone between beach dunes on the immediate coast and communities dominated by woody species, such as coastal strand or maritime hammock, further inland. The specialized dune building grasses of the beach dune community, sea oats (*Uniola paniculata*), bitter panicgrass (*Panicum amarum*), and saltmeadow cordgrass (*Spartina patens*), are usually present, along with a variety of other herbaceous species typically found on more stable soils, such as bluestem grasses (*Andropogon spp., Schizachyrium spp*.), camphorweed (*Heterotheca subaxillaris*), and earleaf greenbrier (*Smilax auriculata*). The coastal grassland community is in excellent natural condition and considered unique habitat by the FWC. The coastal grassland community is listed as imperiled G3/S2 by FNAI.

Within Huguenot, there is one are classified as Coastal Grassland located behind the Coastal Strand of the sand spit peninsula overlooking the Fort George Inlet.

**Maritime Hammock (10 acres)**

Maritime hammock is a predominantly evergreen hardwood forest growing on stabilized coastal dunes lying at varying distances from the shore. Species composition of this community in NE Florida is mainly composed of live oak (*Quercus virginiana*), cabbage palm (*Sabal palmetto*), and red bay (*Persea borbonia*) which combine to form a dense canopy. The low, streamlined profile deflects winds and generally prevents hurricanes from uprooting the trees. Additional canopy species include pignut hickory (*Carya glabra*) and southern magnolia (*Magnolia grandiflora*). Characteristic subcanopy species are red cedar (*Juniperus virginiana*) and American holly (*Ilex opaca*). Yaupon (*Ilex vomitoria*), tough bully (*Sideroxylon tenax*), wax myrtle (*Myrica cerifera*), and saw palmetto (*Serenoa repens*) are typical shrubs. The herb layer is sparse to absent. This community type has been listed as imperiled G3/S2 by FNAI.

This community type is found in the western portion of the park close to State Road A1A and along the entrance road and picnic area. These hammock areas provide the only significant tree canopy within the park.

**Salt Marsh (19 acres)**

Salt marsh is a largely herbaceous community that occurs in the portion of the coastal zone affected by tides and seawater and protected from large waves, either by the broad, gently sloping topography of the shore, by a barrier island, or by location along a bay or estuary. This estuarine wetland sits on muck/sand/or limestone substrate and inundated with saltwater by daily tides.

The salt 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. Salt marsh 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. This community type has been classified as G5/S4 by FNAI.

Salt 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.

## 2.3 Plant and Animal Species

Huguenot is considered by the Duval Audubon Society to be the premier birding site in Duval County and has designated the entire site as an “Important Bird Area” (IBA). An IBA supports significant populations of one or more species of native birds, or a significant diversity of species. Audubon Society members and State and Park staff have documented 278 species of birds on the property.

Not only does the property provide habitat for listed species, 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, Sandwich Terns, American Oystercatchers, Wilson's Plovers and Black Skimmers. The historical number of nesting individuals recorded on Huguenot represents some of the largest rookeries recorded in the state for black skimmers (2,026 individuals in 1985), laughing gulls (4,700 individuals in 1999), and royal terns (1,850 individuals in 1999). Huguenot is home to the largest nesting colony for Royal Tern and Laughing Gulls on the East coast of Florida. As of the 2024 nesting season, records indicate 2851 individual Royal Terns and 5662 Laughing Gulls nesting within the CWA at the northern end of the park peninsula known as 'The Point'. As of 2018 the park is also hosting Florida's northernmost colony of nesting Brown Pelicans at 452 individuals. Black Skimmers have been known to nest periodically in the park but have not been successful since 2012, and Gull Billed Terns no longer nest in the park.

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 regularly monitors the habitats year-round.

The plant and animal species list in Appendix E 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.

## 2.4 Listed Species

"Listed species" are those that are designated 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, Humpback Whale, and West Indian manatee.

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.

A short discussion follows for some of the notable listed species documented at Huguenot. Appendix F contains a list of all the listed species recorded at Huguenot. And, see the Standard Data Report prepared by FNAI in Appendix G.

American Alligator. 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.

Sea Turtle. Sea turtles commonly utilizing beaches along the Atlantic coast are the Loggerhead sea turtle (*Caretta caretta*), Green sea turtle (*Chelonia mydas*) and Leatherback turtle (*Dermochelys coriacea*). 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 along Huguenot's beachfront and have primarily been laid by Loggerhead and Green sea turtles and the occasional Leatherback sea turtle but, on rare occasions, Kemps Ridley and Hawksbill have been documented nesting at Huguenot.

Manatee. The West Indian Manatee (*Trichecus manatus*) utilizes 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; washover 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. Intertidal 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.

Least tern. 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 20th 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 as well as various sandy, shelly habitat throughout the CWA or the dunes. 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.

Rufa red knot. Red knots (*Calidris canutus rufa*) migrate into the Ft. George River region twice annually and frequent inter-tidal areas within and adjacent to Huguenot to feed and rest.

Wood stork. 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.

Gopher Tortoise. The gopher tortoise (*Gopherus polyphemus*), a state Threatened species occurs within Huguenot with the Coastal Strand community as well as within the dune system of the park.

## 2.5 Forest Resources

There are no harvestable timber resources on this property.

## 2.6 Native Landscapes

The native landscapes at Huguenot include beach dune, coastal grassland, maritime hammock, and salt marsh. They are all described in more detail in the Natural Communities section (Section 2.2).

## 2.7 Water Resources

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.

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, 2008 and again in 2016 (Matthew) and 2017 (Irma) have significantly eroded the Atlantic beachside dunes.

It is also important to note that 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.

Water Chemistry

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).

## 2.8 Beaches and Dunes

The majority of the park is comprised of beaches and dunes. Huguenot contains approximately 6000 linear feet of beach front along the Atlantic Ocean as well as 7000 linear feet of shoreline along the St. Johns River, and over 10,000 linear feet along the Ft. George Inlet. The large dune system is primarily found along the Atlantic Ocean shoreline.

## 2.9 Cultural Resources

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.

There are thirty-two, documented Florida Master Sites located in the vicinity of Huguenot with the majority on Ft. George Island. Four 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.

8DU18978 has been identified as a Huguenot Redeposit from road construction and is identified as a prehistoric shell midden dated from 700 BC – AD 1500.

8DU-11520 has been identified as the Osprey Wreck which is a historic shipwreck recorded as 1821 – 1899 located on the shoreline of the Fort George inlet.

Due to State policy, the locations of the sites are not identified on public maps.

## 2.10 Scenic Resources

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.

## 3. Uses of the Property

### 3.1 Previous Use and Development

The site was formerly known as "Jacksonville Harbor" and renamed Huguenot Memorial Park for the French Huguenot Captain Jean Ribault, who founded Fort Caroline in 1562. The site was a desolate and undeveloped park for many decades; used by the public for fishing, swimming, camping and other recreational activities.

Prior to the State of Florida's acquisition in 1943/1944, the site was owned by several parties as evidenced by appended deeds. When the Florida Department of Natural Resources declared the land surplus in 1974, citizens of Fort George Island were concerned that private developers would buy the land. Public pressure was put on the City of Jacksonville to acquire the land and add it to the City park system. On January 29, 1979, after three years of planning, the State of Florida, Board of Trustees of the Internal Improvement Trust Fund conveyed management authority to the City of Jacksonville by Lease Agreement No. 3101. This original lease has since expired, and new Lease No. 4790 was established in 2018 which runs through April 16, 2043.

Since the site was previously owned by several parties and was utilized as an informal 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 and Xalvis Island.

Alimacani was a campground and a fish camp/restaurant for many years until it was acquired by the City of Jacksonville. The City-owned portion is heavily disturbed and the surrounding State-owned portion consists of a sand 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.

### 3.2 Purpose for Acquisition

The property was acquired to protect the natural resources and to provide public recreation for the community. Approximately 400,000 people visit Huguenot each year. The City has managed the property for public recreation since 1979 and has also spent significant effort in managing the natural resources in recent years.

### 3.3 Single or Multiple-Use Management

The potential of the Preserve to accommodate multiple uses was analyzed in accordance with 253.034(5) F.S. The property is managed under the multi-use concept. Management goals and objectives include public access, recreation, resource protection and conservation, ecosystem maintenance and protection, and protection of threatened and endangered species. There is no harvestable timber on the property and the extraction of mineral resources is incompatible with conservation land uses.

All of the current uses and activities within Huguenot are in accordance with the purposes of acquisition, the City's mission, and the Conceptual State Lands Management Plan. During the planning process for this plan, it was determined that no additional uses and activities would be considered at this time.

## 3.4 Surplus Acreage

Following consideration by staff, no lands were determined to be surplus to the needs or management of the park.

# 4. Management Activities and Intent

The following section describes how the City has managed and plans to continue managing the natural and cultural resources at Huguenot. The general goals guiding management of the park include:

- Restore, maintain, and protect native natural communities and diversity.
- Protect listed species and improve their habitat.
- Maintain and protect cultural resources.
- Provide opportunities for recreation where compatible with the above listed goals.

Park management has divided the park into management zones to organize and plan their resource management efforts. See Figure 7 for the Management Zones Map.

## 4.1 Land Management Review

State Lands has conducted one Land Management Review Teams since approval of the 2008 land management plan in September 2013. The consensus was that Huguenot is being managed for the purposes for which it was acquired, it is being managed in accordance with its management plan, and the current management plan provides sufficient protection to the property's natural and cultural resources.

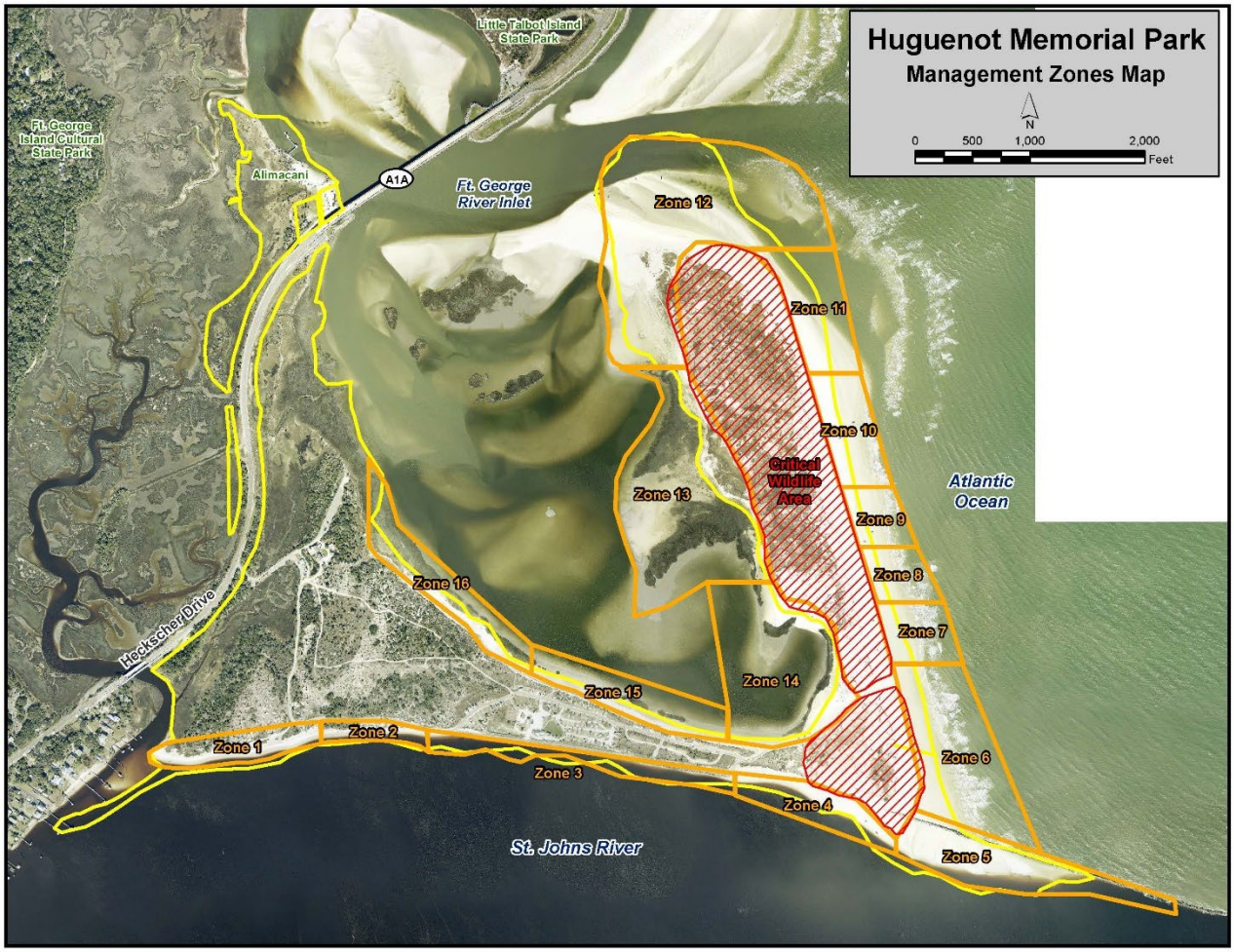
## 4.2 Habitat Restoration and Improvement

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 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. The public is prohibited from highly sensitive environmental areas, including the CWA. Limiting access to these sensitive areas helps protect these resources.

Natural communities on Huguenot are managed to maintain their ecological integrity. The coastal upland communities are monitored on an annual basis to assess any shift in vegetative composition. In particular, the coastal strand area located within the CWA is monitored for the overabundance of woody species, including trees and shrubs that may alter the overall landscape. Communities are monitored on a quarterly basis for overall health. Results from the monitoring activities are used to direct subsequent management activities directed toward conserving and enhancing the natural resources in Huguenot.

A maintenance plan has been implemented to regularly remove woody species encroaching upon the open or sparsely vegetated portions of the dune system utilizing the park naturalist and volunteer efforts to maintain optimal habitat for the protected species using this area. Managers avoid the dune and coastal strand habitats during the nesting season when birds are nesting or appearing to nest.

## Figure 7 – Management Zones Map



In 2006, the FWC regional shorebird biologist met with the park manager to discuss conducting a prescribed burn at the tip of the peninsula to create nesting shorebird habitat. The test burn took place and in 2007 the success of the burn was realized. No action took place again until 2009 at which time a partnered botanist recommended hand pulling the vegetation from the targeted dune area which was primarily composed of Russian Thistle, Mexican Tea and Crows Foot Grass. This labor-intensive effort took place annually until 2012 at which time the manager recommended that burning would be more effective.

In consultation with FWC and beginning in 2013, park staff has been coordinating an annual prescribed burn within the dune area at the north end of the sand spit to improve habitat for nesting royal terns. The annual prescribed burn reduces the amount of above-ground vegetation within the dunes. The burn area is approximately two acres and is preceded by hand application of herbicide directly to invasive vegetation at and near the tops of those dunes where the royal terns have nested. The burn did not take place in 2017 or 2022 due to weather conditions and other obligations for the Florida Forest Service which conducts the burn with the support of park staff. During the 2017 nesting season, the royal terns moved further north in the dunes and upper swales to nest so, starting in 2018, the burn area was moved approximately one thousand feet further north than previous years.

Storms such as hurricanes and nor'easters have greatly impacted the dune system at Huguenot over the years. In recent years, Hurricane Matthew in 2016 resulted in a loss of two hundred fifty feet and Hurricane Irma in 2017 impacted an additional fifty feet of dune. Erosion of beach dunes is lessened by healthy dune vegetation and lack of human disturbance. Signage, fencing and staff patrols are used to prohibit 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. In Spring 2024, the park obtained CCCL permit 8043049-DU to install sand fencing along the areas most affected by erosion.

The wetland communities found on site are also environmentally sensitive areas and 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.

## 4.3 Prescribed Fire and Fire Management

Upon recommendation by FWC, an annual prescribed burn started in 2013 within the dune area (approximately two acres) at the north end of the sand spit to improve habitat for nesting royal terns. The prescribed burn has been preceded by hand application of herbicide directly to invasive vegetation at and near the tops of those dunes where the royal terns have nested. The marine turtle permit holder who has been established as a Park Naturalist Specialist assigned to Huguenot is notified in advance of any prescribed burn plan. He/she provides planners with nest locations and/or timelines for either avoidance or a burn postponement. See Table 1 below

for prescribed fire history at Huguenot and Figure 8 for Prescribed Burn Map. And, Appendix H contains the latest Fire Management Plan.

**Table 1 –** Prescribed Fire History Since 2013

| Acreage | Burn Dates |
|---|---|
| 2 | February 6, 2013 |
| 2 | February 14, 2014 |
| 2 | March 4, 2015 |
| 2 | February 23, 2016 |
| 2 | February 28, 2018 |
| 9.4 | February 21, 2019 |
| 2.5 | February 28, 2020 |
| 2.5 | February 24, 2021 |
| 2 | January 27, 2023 |
| 2 | February 15, 2024 |



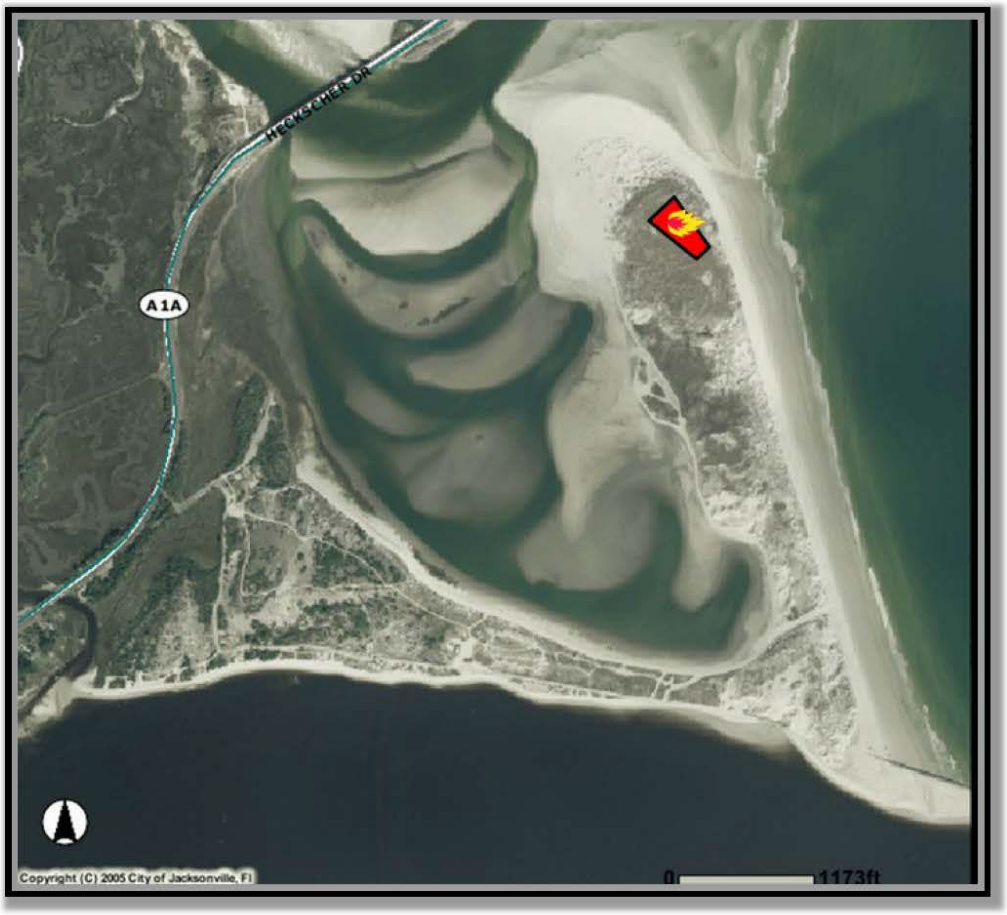
4.4 Listed Species

To date, twenty-one listed species have been recorded at or adjacent to Huguenot. As habitat improvement efforts continue, it is likely that more listed species will be observed. Protection and management strategies for Huguenot listed species include directing public access away from the designated CWA; seasonal closures of certain segments of Huguenot to beach driving to avoid wildlife/beach-goer conflict; monitoring the designated species; educating the visiting public; installing informational signage; and, surveying year round for shorebird non-nesting and nesting behaviors.

Most of the listed animal species recorded on the site are nesting shorebirds and wading birds. 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

**Figure 8 – Prescribed Burn Map**

## Huguenot Prescribed Burn Area



required by nesting, migrating, and wintering shorebirds will be managed and protected as discussed in 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 requires Huguenot managers 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 Appendix I – Beach Driving Plan. 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. Environmental education and interpretative information are also important tools that are discussed later in the plan.

Beach driving is currently permitted from 6:00 am (after ensuring there are no sea turtles present on the beach during turtle nesting season) to 7:00 pm during Daylight Savings Time. From Memorial Day weekend through Labor Day weekend, the park hours are 6:00 am to 7:00 pm Monday through Thursday and 6:00 am to 8:00 pm on Friday, Saturday, Sunday, and Holidays. During the winter season, beach driving will be from 6:00 am to 6:00 pm. Night beach driving is not permitted anytime. The City may modify operating hours, it deems appropriate, to ensure compliance with their responsibilities of managing the park for resources and resource-based activities.

Natural processes sometimes also contribute to the protection of certain areas of the park. For instance, the dunes in Zones 13 and 14 have grown and encroached the driving area preventing vehicles from accessing the area. Zones 13 and 14 have both been permanently closed to driving due to dune formation from storms and natural occurrence.

Huguenot is also an extensively used recreational fishing area. The park is 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.

Trash cans will be raised and secured in all park areas to prevent scavengers, such as raccoons, from foraging in the trash.

Pets are not allowed in Huguenot by day-use customers but are allowed for registered campers with a limit of three per site. However, pets are never allowed on any shoreline at any time which was implemented in 2010. 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. 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. Registered campers are encouraged to carry their own pet waste disposal bags.

While registered camper dogs will be allowed in the campgrounds and other common areas of the park, dogs will not be allowed on any of the beaches within the park including Family Beach, the inlet, and all of the Atlantic Ocean beaches.

Below are some species-specific management strategies used at Huguenot.

Shorebirds. 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. The City implemented a Shorebird Management Plan in January 2007 and continues to conduct weekly surveys of the species of birds found in Huguenot. See Appendix J for the plan and Appendix K for shorebird nesting data.

Huguenot has the only nesting colony of Laughing Gulls and Royal Terns on Florida's Atlantic Coast. In addition, Least Terns, American Oystercatchers, Willet, Clapper Rail, Wilson's Plover and occasionally Black Skimmers nest within portions of Huguenot during the summer. In 2018, Brown Pelicans began nesting within the Seabird colony at Huguenot. The dunes of the park were established as Fort George Inlet Critical Wildlife Area by the FWC in 1986. The nesting area is roped off and signage is present restricting access to this area throughout the year. In addition, surveys are conducted during the nesting season to locate any nesting areas outside the existing restricted access areas, and the barriers are adjusted accordingly to include these areas within the protected nesting area. The CWA in the northern area of Huguenot, known as the Point, was expanded by 150 feet following approval of the 2008 management plan. Huguenot staff continues coordination with FWC, as needed.

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 requires 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 species. Managing and monitoring of the existing communities and vegetation densities within the CWA are important in maintaining optimal habitat for the nesting shorebirds. Vehicle control structures (bollards and signage) have been installed to protect the tidal flats to keep vehicle traffic out of the habitat area since 2009. 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. That portion of the inlet shoreline was permanently closed to driving on

11/16/17 due to the expansion of the dunes into the existing driving lane. There will also be seasonal closing of the beach on the Atlantic side of the park depending on the activity of the threatened shorebirds.

Environmental education is provided to park visitors at the Nature Center, through monthly outdoor programs, and on the beach by actively engaging visitors in discussions about protection of the migrating and nesting birds. During shorebird nesting and migration, an educational pamphlet is offered 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. A Nature Center has also been developed for year-round outreach and environmental education since 2010 in the former park store. The Nature Center is staffed by the Park Naturalist and two seasonal interns daily throughout the summer season and Friday to Sunday during the rest of the year.

Resource law enforcement measures are 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.

Wading birds. The following listed wading bird species have been confirmed in the surrounding salt marsh: 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. Wading birds utilize both the Atlantic beachfront areas as well as the Ft. George Inlet shoreline 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.

Sea turtles. Sea turtle nest monitoring is managed through the continued coordination with FWC and FWS. Beginning in 2006, Huguenot partnered with the warrant officer at Mayport Naval Station, Art Burt, to establish the sea turtle program under the Navy's permit. Following his retirement in 2012, the Park Naturalist has been the permit holder for Huguenot (Permit # MTP-XX-183) which 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 are 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 are not permitted on the nesting beach at any time. 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 Appendix L for the Sea Turtle Management Plan and Appendix M for sea turtle nesting collected data over the years at Huguenot.

Manatees. 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.

## 4.5 Exotic and Invasive Species Management and Control

Ornamental citrus trees planted along the main entrance road have been removed. Current observed invasive and exotic plants documented in or nearby the park consist of Asparagus Fern (*Asparagus setaceus*), Fishbone Fern (*Nephrolepis cordifolia*), Cogon Grass (*Imperata cylindrica*), Durban Crowfoot (*Dactyloctenium aegyptium*), Natal Grass (*Melinis repens*), Lantana (*Lantana strigocamara*), Russian Thistle (*Salsola australis*), Alligator Plant (*Kalanchoe × houghtonii*), Brazilian Pepper (*Schinus terebinthifolia*), Chinese Tallow Tree (*Triadica sebifera*), Alligator Weed (*Alternanthera philoxeroides*), Giant Reed (*Arundo donax*), Mexican tea (*Dysphania ambrosioides*), Red Sorrel (*Rumex acetosella*), Spiny Sowthistle (*Sonchus asper*), Chinabery (*Melia azedarach*), White Sweetclover (*Melilotus albus*), Oleander (*Nerium oleander*), and Indian Hawthorn (*Rhaphiolepis indica*).

The vegetative management of the property includes 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 has been implemented. The natural communities have been 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 indicates the locations and densities of exotic plants. The plants are then targeted for removal through mechanical or chemical means. Continued monitoring of any identified areas is utilized and repeated removal treatments is used as necessary.

Ongoing invasive plant work in the park has included removal of lantana, tuberous sword fern, and kalanchoe. Three large Chinese tallow trees and 1 mature Chinaberry tree were removed utilizing heavy machinery. Russian Thistle was not observed in the park in 2024 but is continuously monitored for reemergence. Durban Crowfoot grass has begun dominating the northern point where seabirds nest most heavily in the park. An action plan is being established with partner organizations, including FWC, to schedule a workday to combat the continued spread and limit seed dispersal through biological and mechanical means before

the annual prescribed burn. See Table 2 for summary of exotic plant species management in the park.

**Table 2 –** Exotic Plant Species Management

| Common and Scientific Name | Date of Known Infestation, site | Removal Methods | Current Status |
|---|---|---|---|
| Lantana *Lantana camara* | 2014, throughout park uplands (zones 1, 2, 16) | Hand cutting/pulling | Monitoring for regrowth |
| Tuberous Sword Fern *Nephrolepsis cordifolia* | May 2017, observed near picnic area (zone 1) | Hand pulling | Monitoring for regrowth |
| Wild Taro *Colocasia esculenta* | May 2017, observed behind front office (zone 1) | Not spreading, was not removed | Eradicated due to unintended salt water intrusion from hurricane Irma |
| Kalanchoe *Kalanchoe daigremontiana* | 2014, observed near picnic area (zone 1) | Hand pulling | Monitoring for regrowth |
| Chinese Tallow *Triadica sebifera* | 2014, throughout park uplands (zones 1, 2, 16) | Cutting, herbicide regrowth | Monitoring for regrowth |
| Crowfoot Grass *Dactyloctenium aegyptiu,* | 2014, throughout park (zones 1-16) | Herbicide and controlled burn in tern nesting area | Continued management; eradication unforeseeable |

Vegetation within the public use 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.

Invasive and exotic wildlife consists of Cuban Tree Frog (*Osteopilus septentrionalis*), Texas Horned Lizard (*Phrynosoma cornutum*), Mediterranean Gecko (*Hemidactylus turcicus*), Brown Anole (*Anolis sagrei*), House Finch (*Haemorhous mexicanus*), House Sparrow (*Passer domesticus*), Mallard (*Anas platyrhynchos*), European Starling (*Sturnus vulgaris*), Rock Pigeon (*Columba livia*), European Collared-dove (*Streptopelia decaocto*), Ghost Bulimulus Snail (*Bulimulus bonariensis*), Pantropical Jumping Spider (*Plexippus paykulli*), Green Muscle (*Perna viridis*), Wharf Louse (*Ligia exotica*), Lionfish (*Pterois volitans*), Nutria (*Myocastor coypus*), Nine-banded Armadillo (*Dasypus novemcinctus*) and Red Imported Fire Ant (*Solenopsis invicta*).

The Park Naturalist implemented a frog monitoring program in 2023 in an effort to remove non-native invasive Cuban Tree Frogs, *Osteopilus septentrionalis*. Some of the collected invasive tree frogs have been added to an educational exhibit in the park's Nature Center.

## 4.6 Public Access and Recreational Opportunities

The property is accessible by vehicle from Heckscher Drive (State Road 105), which becomes State Road A1A, and by personal watercraft from Ft. George Inlet and the St. Johns River. The launching and landing of vessels is allowed at the Alimacani boat ramp.

Existing facilities at Huguenot consist of the administrative offices, maintenance compound, park road, security residence, restrooms/storage building, campground with 74 permitted campsites and electric hook-ups, three picnic pavilions, concession building with restrooms, nature center, playground, overflow parking lot, marsh observation platform, and a lifeguard shelter.

Currently, Huguenot serves an estimated 400,000 people each year. It's popularity, in part, is contributed by being the only remaining beach in Duval County that allows public vehicle access which is due to its unique landform and significant distance to the nearest improved parking lot. The maximum speed limit on the beach is 5 mph. Surfing, fishing, swimming, kite-surfing and camping are some of the beloved recreational pursuits at the park.

Huguenot also attracts lots of nature enthusiasts, especially birders, since it is designated a Great Florida Birding Trail site by the Florida Fish and Wildlife Conservation Commission because of the outstanding habitat and the abundance of birds of various species. The park includes a critical nesting area for terns and shorebirds, and often hosts rarities, like bar-tailed godwits. Visitors are also likely to spot gannets, loons and sea ducks in the winter.

The current park road connects Heckscher Drive to the entrance station/administrative office and then is routed along St. Johns River shoreline to the campground, overflow parking lot and ultimately the beach access. The portion of the asphalt road along the river shoreline has experienced severe erosion since the previous management plan. In particular, Hurricanes Matthew and Irma destroyed approximately 2300 LF of road and eliminated multiple riverfront campsites. FEMA provided assistance in 2021 to relocate the lost campsites and rebuild this section of park road which included installation of revetment just along the newly replaced road segment. However, erosion continued at the western terminus of the new

revetment which resulted in washing out the immediately adjacent, unprotected section of road during the summer of 2024 which temporarily caused the park to close while emergency repairs were conducted. The river shoreline and road remain extremely vulnerable to chronic erosion and acute storm damage as a long-term solution is identified and pursued.

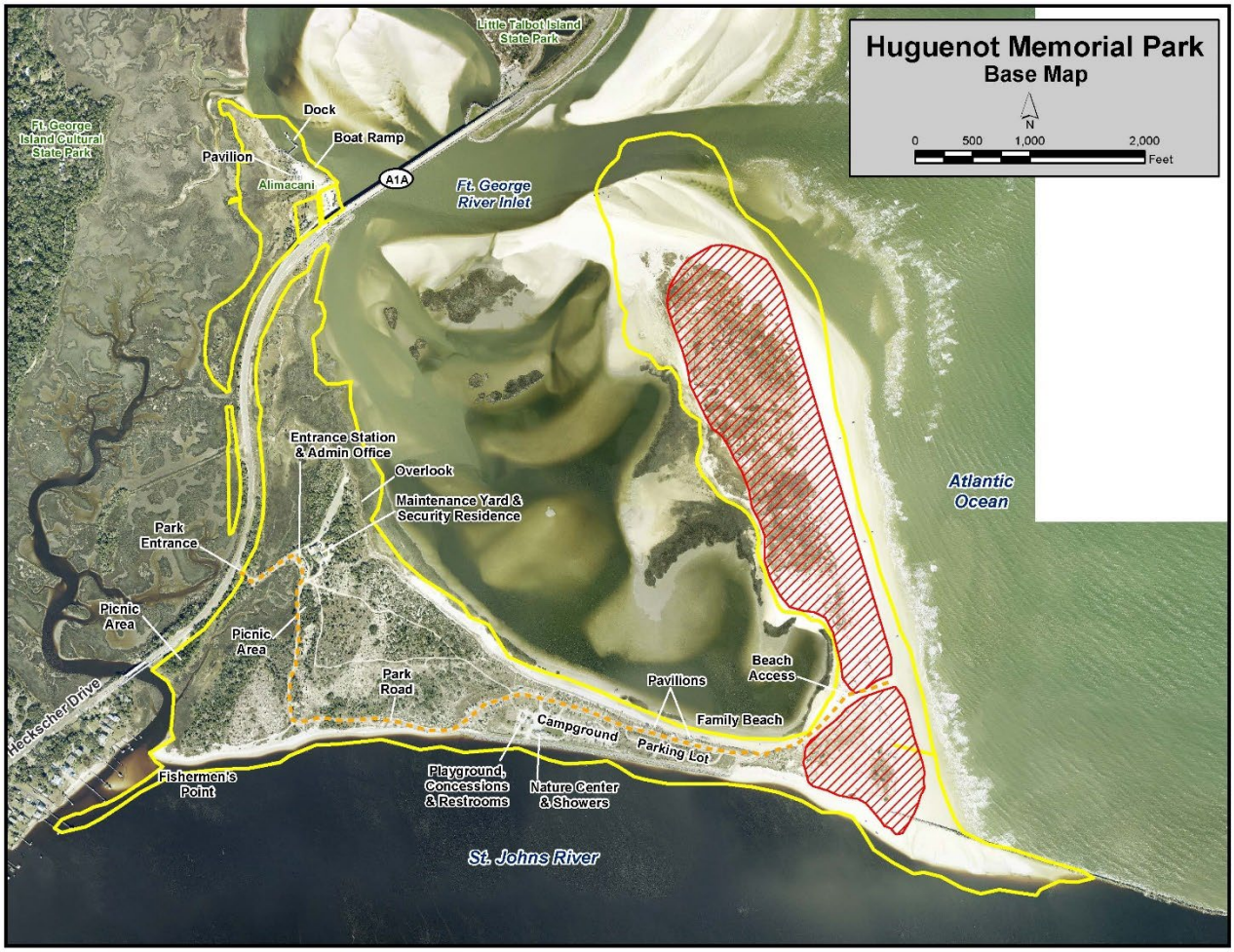
The State-owned portion of Alimacani is approximately 25 acres. It is bounded to the east by the Ft. George River, to the north and west by Haulover Creek and State Road A1A, and the Ft. George River Bridge to the south. Existing public facilities at Alimacani include a natural-surface boat ramp, picnic shelter, boardwalk with scenic overlooks and boat dock. Alimacani also contains a former security residence site and three volunteer campsites that have been closed due to being in a flood zone which has compromised the septic field.

The City-owned Hughes property offers free picnic area and trail access to Haulover Creek for fishing, birdwatching and launching kayaks. Educational signage along the trail provides information about the local wildlife.

Huguenot charges an entrance fee of $5.00 per vehicle up to six persons with a one-dollar fee per additional person. Alternatively, visitors can purchase an annual vehicle pass for $99.00 currently which is good for that vehicle only and occupants up to six persons for entry into Katheryn Abby Hanna and Huguenot Memorial Parks. There is no admission fee or visitation data for Alimacani; however, it can get busy during the summer months.

See Figure 9 for the Recreational Base Map.

## Figure 9 – Recreational Base Map



## 4.7 Hydrological Preservation and Restoration

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 along all unaffected areas. Best management practices for site clearing and erosion control will be employed in all phases of development. The water quality management will be maintained through local and state stormwater management regulations.

In 1999, the FDEP designated the Ft. George Inlet a Critical Erosion Area, and the south end of Little Talbot Island shoreline was re-nourished. And borrow areas that could provide potential re-nourishment for beaches were identified in and around the Ft. George Inlet. Florida Department of Transportation also installed revetment to stabilize a segment of the north bank of the Ft. George Inlet channel at the State Road A1A bridge just across from Huguenot.

As the south end of Little Talbot Island continues to erode, sand is accreting into the Ft. George Inlet at alarming levels. The river channel has narrowed and shoaling adjacent to Huguenot has increased significantly. Multiple studies have concluded that the inlet will eventually close if no corrective action is taken. In 2007, Congress considered creating a permanent sand bypass system to alleviate the problem within the inlet; however, this project was not funded.

In 2021, the USACE with the Florida Park Service as the non-federal partner, began a Fort George Inlet Feasibility Study that recommended a 1,000 LF rock groin and dredging with beneficial use of material replaced on Little Talbot Island State Park which they believed would stabilize the inlet and prevent further erosion to the park. Unfortunately, this study was terminated prior to completion since the overall cost to implement the plan greatly exceeded the congressionally authorized limit of $12.5M for the Continuing Authorities Program (CAP) Section 111 which would be 100% federally funded. Therefore, this issue remains unresolved but is beyond the scope and jurisdiction of this management plan. The City will continue to engage in conversations with USACE, DEP and others about the inlet.

Due to extreme currents and tidal conditions, no swimming is allowed in the shoal area. Currently this is an unguarded area, and patrons are advised to only swim in guarded areas.

The St. Johns River shoreline within the park has also experienced significant and continued erosion in recent years which has washed out large sections of the paved, park road and waterfront campsites. The beach access road and lost campsites had to be relocated but erosion continues at the western terminus of the new shoreline revetment which resulted in loss of another section of road in summer of 2024. This management plan includes recommendations to relocate the road away from the river shoreline and behind the buried jetty feature to provide a sustainable, long-term solution. Shoreline stabilization of the exposed river shoreline is also proposed.

## 4.8 Forest Resource Management

There is no harvestable timber at Huguenot.

## 4.9 Cultural Resources

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.

The City will conduct land management activities in a manner that will provide protection for these sites and serve to reduce the potential for adverse impacts. If staff discovers any additional sites, staff will document and report those sites to the DHR. Additionally, detrimental activities discovered on these sites will also be reported to the DHR and appropriate law enforcement agencies. Due to State policy, the location of the sites is not identified on public maps. The City will follow the management procedures outlined in "Management Procedures of Archaeological and Historical Sites and Properties on State-owned or Controlled Lands" (see Appendix N). The Division of Historical Resources will be contacted regarding any significant ground-disturbing activity or any new sites.

## 4.10 Capital Facilities and Infrastructure

Several projects have been identified and discussed below to improve public access and recreational opportunities at the Huguenot. See Figure 10 for the Conceptual Master Plan showing planned recreational improvements and new park facilities.

- Park Road Relocation. The only public access/entrance road within Huguenot that provides access to the beach and campground is subject to severe erosion along the St. Johns River shoreline and is at risk of failure. And, the entire road is located in the flood zone. Park staff have worked with engineering consultants to identify a higher elevation route outside of the flood zone, which may be suitable sites for building more resilient park road and infrastructure. The conceptual master plan identifies the current recommended route. The City will consult with FWC on the road design to minimize impacts to gopher tortoise and other wildlife.

  Once constructed, the existing park road would continue to be maintained to provide vehicular access to Fishermen's Point but the portion of road that parallels the river shoreline would be converted into a bike/ped path and service road.

- Relocation of Entrance Station/Administrative Office & Maintenance Yard. The entrance station and administrative office is only about 700 feet from State Road A1A. When park

visitation is high, vehicles are backed more than a mile, blocking the highway, and causing a major disruption to traffic on A1A. Park staff attempts to reduce these traffic issues by opening a second lane at the entrance station during periods of peak visitation, encouraging campers to pay ahead of arrival, and promoting the purchase of annual passes to expedite the entry process.

In addition, the entrance station, park office and the adjacent maintenance yard are located in the flood zone. The City has repeatedly repaired the main office and other infrastructure at the park entrance because of flooding-related damage. If these facilities are not relocated to higher ground, it will continue to be impacted by floods, costing the City a significant amount of money and staff time for repair work as well as lost revenue and temporary park closures. This plan proposes relocating these facilities to higher elevation outside the flood zone along the proposed realigned park road as indicated on the conceptual master plan.

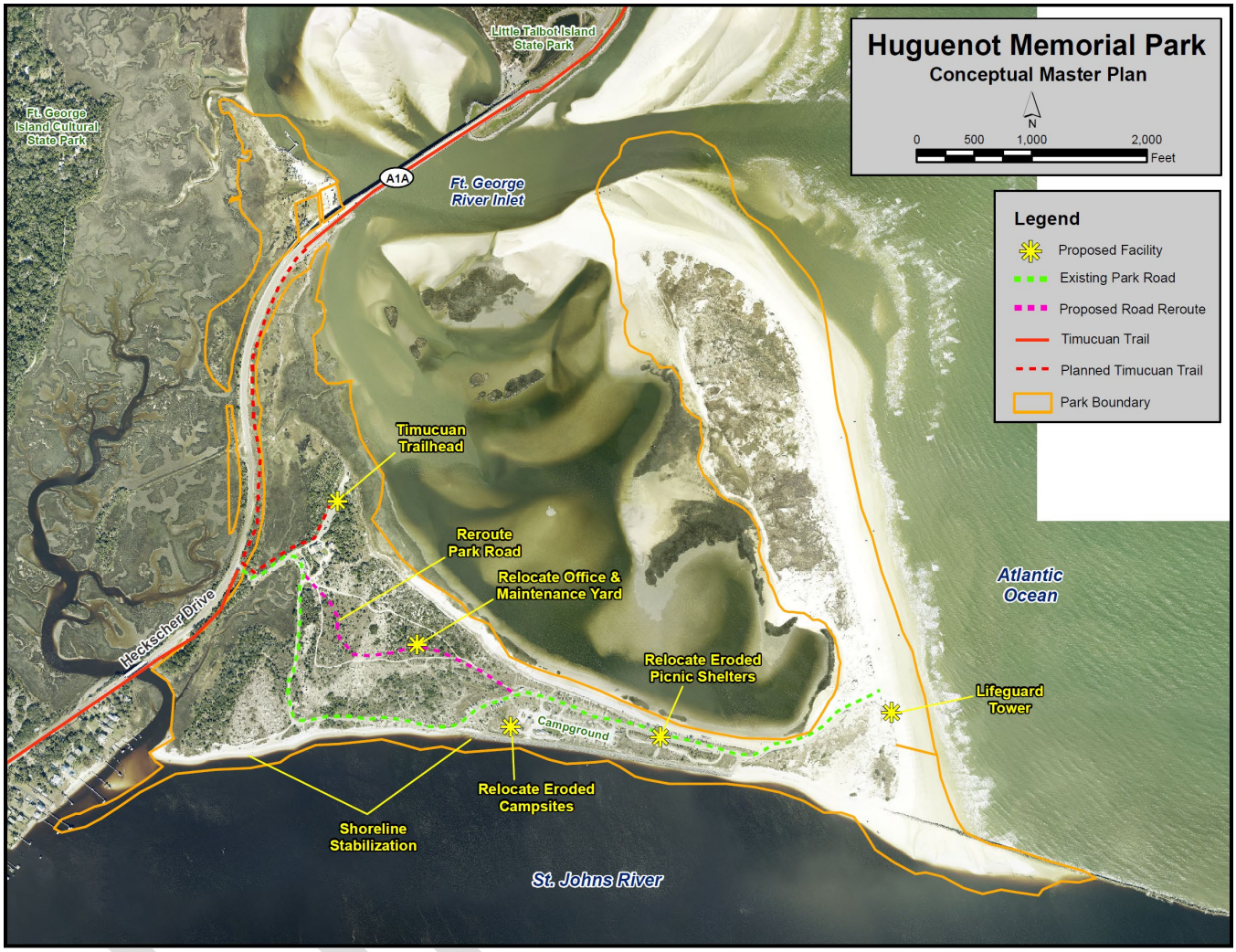
- Shoreline Stabilization. Although fill placement is authorized by USACE, the agency is unwilling to place dredge materials along the park's river shoreline because they expect the material would rapidly erode and return to the federal channel of the St. Johns River. Placement of fill material would only be considered if a considerable amount of fill could be placed and if there is something in-place to retain the materials (e.g., T-groin or series of groins). Park staff is working with a coastal engineering firm to prepare a feasibility study for potential long-term solutions to address further erosion along the river shoreline. The intent is to proceed with a river shoreline stabilization project once permits are approved and funding is secured.

- Restore Campsites and Picnic Facilities. Due to the shoreline erosion discussed above, the park has lost about ten riverfront campsites and the picnic shelters along Family Beach are getting undermined. This plan recommends relocation of these lost/endangered facilities within the existing disturbed areas of the campground and overflow parking lot.

- Lifeguard Tower. The City plans to construct some type of life guard tower beachside near the entrance/exit to the beach to support lifeguard operations and emergency personnel.

- Timucuan Trail Trailhead. The Timucuan Trail is planned to be a continuous paved, multi-use path extending from Hanna Park to Amelia Island. The only section remaining in Duval County north of the St. Johns River is a short section from Huguenot's entrance driveway to the Fort George River Bridge. The project includes establishing a trailhead parking lot within Huguenot outside of the fee collection station. Project design, construction, and funding is being managed by FDOT.

## Figure 10 – Conceptual Master Plan



## 4.11 Optimal Boundary

There are no privately-owned uplands directly adjacent to Huguenot and; therefore, there are no plans to establish an optimal boundary.

## 4.12 Research Opportunities

The City occasionally receives requests for research projects from university professors and zoo staff. The City forwards research proposals to State Lands to review and issue a Letter of Consent. The requestor must provide reasonable assurance that the proposed use is consistent with the Management Plan and will not harm the natural and cultural resources of the property or disturb public recreational use of the site.

Recent scientific work on the property included plant and herpetological surveys.

## 4.13 Soil Conservation

Huguenot is situated in a very dynamic coastal area due to its placement between the St. Johns River Inlet and Fort George River Inlet. Strong currents and related eroding forces have a major effect on shorelines and submerged lands that can result in dramatic short and long term erosional and depositional changes. 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 have significantly eroded the Atlantic beachside dunes.

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. Huguenot will continue to prohibit activity on the beach dunes through barriers, signage, staff patrols and interpretative materials.

The City will also continue to pursue options to stabilize the eroding St. Johns River shoreline and participate in discussions with the USACE about potential solutions to address erosion and shoaling in the Ft. George River Inlet.

## 4.14 Cooperating Agencies

Since the City leases the property from the State and Federal government, staff regularly cooperates with State Lands and USACE. City staff also cooperates with the Florida Fish and Wildlife Conservation Commission regarding the management of wildlife resources and law enforcement, Florida Forest Service for the annual prescribed burn, and the Division of Historical Resources regarding the management of cultural resources. Park staff also works closely with the Timucuan Shorebird Partnership formed in 2008 to conserve shorebird and seabird populations in Clay, Duval and Nassau Counties.

## 4.15 Arthropod Control Plan

An Arthropod Control Plan has been developed with the City of Jacksonville's Mosquito Control Division. Huguenot is treated upon request by the Park Manager.

# 5. Resource Management Goals and Objectives

The resource management goals described below are meant to be broad statements aimed at achieving desired future outcomes at Huguenot. The stated time period for short-term goals is less than two years and for long-term goals is up to ten years.

## 5.1 Habitat Restoration and Improvement

Goal: Maintain, improve or restore natural communities

Long-term/Ongoing

a. Continue to prescribe burn approximately 2 acres of dune habitat per year prior to shorebird nesting season.
b. Conduct habitat/natural community improvement, via mechanical clearing and/or herbicide treatment of invasive plants following prescribed burn.

## 5.2 Listed Species Management

Goal: Maintain, improve, or restore listed species populations and habitats.

Long-term/Ongoing

a. Continue to install and adjust vehicle and pedestrian barriers and signage to prohibit access to protected habitat areas.
b. Continue to enforce beach driving restrictions and policies.
c. Continue regular shorebird/seabird surveys.
d. Continue sea turtle nest monitoring program.
e. Continue to make vegetative management decisions that will help listed plant species populations thrive.

## 5.3 Public Access and Recreational Opportunities

Goal: Provide public access and recreational opportunities.

Long-term/Ongoing

a. Continue to maintain public access and recreational opportunities.
b. Continue to provide environmental education programming.
c. Pursue public access and recreation related capital facilities and infrastructure improvements.

## 5.4 Hydrological Preservation and Restoration

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

Long-term/Ongoing

a. Continue to collaborate with USACE and DEP on efforts to address erosion and shoaling in the Ft. George River Inlet with goal of keeping the inlet open.

## 5.5 Exotic and Invasive Species Maintenance and Control

Goal: Remove invasive plants and animals and conduct needed maintenance control.

Long-term/Ongoing

a. Maintain a database on any locations of invasive exotic plants species.
b. Treat invasive exotic plant species, as they are located and prevent further infestation.
c. Continue to monitor for presence of invasive animal species.

## 5.6 Capital Facilities and Infrastructure

Goal: Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan.

Short-term

a. Relocate the park road on higher elevation and away from the river shoreline.

Long-term

b. Relocate the entrance station, administrative office and maintenance yard on higher elevation and further from A1A to allow greater stacking distance on new park road.
c. Stabilize the remaining, unprotected St. Johns River shoreline and repurpose the old park road as paved trail and service road.
d. Restore eroded campsites and picnic facilities.
e. Construct a lifeguard tower on the beach.
f. Develop a trailhead parking area to support the Timucuan Trail.

## 5.7 Cultural Resources

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

Long-term/Ongoing

a. Monitor, protect, and preserve the four documented Master Sites in accordance with DHR procedures.
b. Ensure all known sites are recorded in the Florida Department of State's Florida Master Site file.
c. Work with the Florida Public Archaeological Network to document any new sites.

## 5.8 Research Opportunities

Goal: Explore and pursue cooperative research opportunities.

Long-term/Ongoing

a. Continue to cooperate with researchers and universities as appropriate.
b. Continue to assess the need for, and pursue research and environmental education partnership opportunities, as appropriate.

# 6. Ten-year Implementation Schedule, Measures, and Cost Estimates

| **GOAL 5.1** | Maintain, improve or restore natural communities | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
|---|---|---|---|---|---|
| Objective A | Continue to prescribe burn approximately 2 acres of dune habitat per year prior to shorebird nesting season. | Acres burned | O | $5000 | $50,000 |
| Objective B | Conduct habitat/natural community improvement, via mechanical clearing and/or herbicide treatment of invasive plants following prescribed burn. | Acres treated | O | $2000 | $20,000 |
| **GOAL 5.2** | Maintain, improve, or restore listed species populations and habitats. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Continue to install and adjust vehicle and pedestrian barriers and signage to prohibit access to protected habitat areas. | Acres protected | O | $2000 | $20,000 |
| Objective B | Continue to enforce beach driving restrictions and policies. | Citations issued | O | $1000 | $10,000 |
| Objective C | Continue regular shorebird/seabird surveys. | Surveys completed | O | $2000 | $20,000 |
| Objective D | Continue sea turtle nest monitoring program. | # of nests | O | $1000 | $10,000 |
| Objective E | Continue to make vegetative management decisions that will help listed plant species populations thrive. | Acres treated | O | $1000 | $10,000 |
| **GOAL 5.3** | Provide public access and recreational opportunities. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Continue to maintain public access and recreational opportunities. | Facilities maintained | O | $20,000 | $200,000 |
| Objective B | Continue to provide environmental education programming. | Programs offered | O | $2000 | $20,000 |
| Objective C | Pursue public access and recreation related capital facilities and infrastructure improvements. | Capital facilities and infrastructure improvements pursued | O | - | - |
| **GOAL 5.4** | Protect water quality and quantity, restore hydrology, and maintain the restored condition. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Continue to collaborate with USACE and DEP on efforts to address erosion and shoaling in the Ft. George River Inlet with goal of keeping the inlet open. | Solution Implemented | O | - | - |

# 6. Ten-year Implementation Schedule, Measures, and Cost Estimates, cont.

| **GOAL 5.5** | Remove invasive plants and animals and conduct needed maintenance/control | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
|---|---|---|---|---|---|
| Objective A | Maintain a database on any locations of invasive exotic plant species | Database maintained | O | $200 | $2000 |
| Objective B | Treat all invasive exotic plant species and prevent further infestations | Acres treated | O | $1000 | $10,000 |
| Objective C | Continue to monitor for the presence of invasive animal species. | Number removed | O | $200 | $2000 |
| **GOAL 5.6** | Develop and maintain the capital facilities and infrastructure necessary to meet the goals and objectives of this management plan. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Relocate the park road on higher elevation and away from the river shoreline. | Road relocated | ST | - | $4,000,000 |
| Objective B | Relocate the entrance station, administrative office and maintenance yard on higher elevation and further from A1A to allow greater stacking distance on new park road. | Facilities relocated | LT | - | $5,000,000 |
| Objective C | Stabilize the remaining, unprotected St. Johns River shoreline and repurpose the old park road as paved trail and service road. | Shoreline stabilized | LT | - | $25,000,000 |
| Objective D | Restore/relocate eroded campsites and picnic shelters | Facilities restored | LT | - | $500,000 |
| Objective E | Construct a lifeguard tower on the beach. | Tower constructed | LT | - | $500,000 |
| Objective F | Develop a trailhead parking area to support the Timucuan Trail. | Trailhead complete | LT | - | - |
| **GOAL 5.7** | Protect, preserve, and maintain the cultural resources of the Preserve. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Continue to monitor, protect, and preserve the documented Master Sites in accordance with DHR procedures. | Sites protected | O | - | - |
| Objective B | Ensure all known sites are recorded in the Florida Department of State's DHR Master Site file. | All sites recorded | O | - | - |
| Objective C | Work with the Florida Public Archaeological Network to document new sites | Site protected | O | - | - |
| **GOAL 5.8** | Explore and pursue cooperative research opportunities. | **MEASURE** | **PLANNING PERIOD** | **ESTIMATED COST (per year)** | **ESTIMATED COST (10 year)** |
| Objective A | Continue to cooperate with researchers and universities as appropriate. | Issue appropriate authorization | O | - | - |
| Objective B | Continue to assess the need for, and pursue research and environmental education partnership opportunities, as appropriate. | Partnerships created | O | - | - |
| | **ESTIMATED COST TOTALS** | | | **$37,400** | **$35,374,000** |

ST = action within 2 years
LT = action within 10 years
O = ongoing

## 7. Resource Management Challenges and Strategies

The greatest resource management challenge at Huguenot is providing reliable recreational access within a property that is vulnerably located within a dynamic coastal system that also provides significant nesting habitat for protected shorebirds and seabirds. Staff does its best to find a balance between visitor use and resource protection while remaining compliant with all legal requirements and management plan objectives.

## 8. Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.

The following management and restoration activities are provided by private vendors and managed by the City.

- Mowing contract
- Restroom cleaning/janitorial contract
- Nighttime security services
- Concessionaire services (i.e. food sales and recreation equipment rentals)

## 9. Accomplished Objectives from 2008 Management Plan

| Resource Management Goals and Objectives | Progress |
|---|---|
| NATURAL COMMUNITIES MANAGEMENT | |
| Manage recreation access away from wetland areas | Ongoing |
| Prohibit access to Critical Wildlife Area | Ongoing |
| LISTED SPECIES PROTECTION | |
| Establish regular shorebird/seabird surveys | Ongoing |
| Establish and enforce beach driving restrictions | Ongoing |
| Continue sea turtle nesting monitoring program | Ongoing |
| FIRE MANAGEMENT | |
| Develop annual work plan and implement | Ongoing |
| EXOTIC PLANTS and ANIMALS | |
| Look for new invasive plant populations | Ongoing |
| Continually monitor populations for treatment success | Ongoing |
| CULTURAL RESOURCES | |
| Document and report any new sites to the Division of Historical Resources | Ongoing |
| Evaluate all land management activities to eliminate or minimize disturbances to sites | Ongoing |

**Land Use Management**

ACCESS

| | |
|---|---|
| Install and maintain vehicle control bollards | 100% completed |
| Relocation/stabilization of park road | Completed hurricane-damaged section only |
| Intersection improvements | - FDOT placed camera to monitor traffic at park entrance<br>- FDOT installed 2 flashing light signs along Heckscher Dr. indicating when park is closed |

RECREATION

| | |
|---|---|
| Construct day-use/overflow parking lot | 100% completed |
| Renovate bird observation platform/boardwalk | 100% completed |
| Renovate campground restrooms and showers | 100% completed |
| Redesign/expand campground | Relocated 16 campsites lost to shoreline erosion |
| Construct boardwalk & boat dock (Alimacani) | 100% completed |
| Stabilize shoreline (Alimacani) | 100% completed |

ENVIRONMENTAL EDUCATION

| | |
|---|---|
| Redesign former park store into nature center | 100% completed |
| Hire Parks Naturalist | Yes |
| Develop kiosk materials | 100% completed |
| Deliver interpretive programs | Ongoing |

SECURITY

| | |
|---|---|
| Maintain on-site security residence | Ongoing |
| Hire nighttime security patrol service | Ongoing |

## 10.Compliance with Federal, State, and Local Government Requirements

Management of Huguenot under the multiple-use concept complies with the State Lands Management Plan. This plan also conforms with the City of Jacksonville Comprehensive Plan (see consistency letter from the Planning Department in Appendix O) and will further key commitments relating to environmentally sensitive land lease programs and to the protection and preservation of natural resources, addressing five elements of the Comprehensive Plan:

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

## 11.Revenue and Expenses

In an average year, the revenue generated by this property is approximately $900,000 and the expenses are also approximately $900,000. Table 3 summarizes the projected expenses and revenue over the next ten years.

**Table 3 –** Projected Expenses and Revenue

**PROJECTED OPERATIONAL EXPENSES**

| Activity | Unit | Total Cost over 10 years |
|---|---|---|
| Salaries | # staff | $5,000,000 |
| Overnight Security | # officers | $1,000,000 |
| Dumpster Service | # dumpsters | $100,000 |
| Equipment Rental | # equipment | $25,000 |
| Repairs/Maintenance | # repairs | $300,000 |
| Misc. Services | # services | $120,000 |
| Other Operating Supplies | # supplies | $120,000 |
| Credit Card Fees | # transactions | $150,000 |
| Vehicles | # vehicles | $600,000 |
| Computers/IT Services | # computers | $500,000 |
| Utilities | utility rate | $300,000 |
| Other Indirect Costs | | $600,000 |
| Prescribed fire | # acres/year | $50,000 |
| Habitat improvement | # acres/year | $20,000 |
| Adjust habitat protection barriers | # acres | $20,000 |
| Beach driving enforcement | 1 mile | $10,000 |
| Shorebird surveys | Weekly surveys | $20,000 |
| Sea turtle nest monitoring | Daily surveys | $10,000 |
| Vegetation management | # acres | $10,000 |

| | | |
|---|---|---|
| Provide park programming | # programs | $20,000 |
| Invasive plant monitoring | # surveys | $2000 |
| Invasive plant treatment | # acres | $10,000 |
| Invasive animal monitoring | # surveys | $2000 |
| **Total** | | **$8,989,000** |

**PROJECTED REVENUE**

| Activity | Unit | Total Revenue Over 10 Years |
|---|---|---|
| Entrance Fees | 400,000 annual visitors | $5,500,000 |
| Annual Passes | 300 passes | $300,000 |
| Camping Fees | 12,000 annual registered campers | $3,000,000 |
| Misc. Revenue | | $100,000 |
| **Total** | | **$9,000,000** |

# Appendix A. Lease with FDEP

This Lease was prepared by:
Jay Sircy
Bureau of Public Land Administration
Division of State Lands
Department of Environmental Protection, MS 130
3900 Commonwealth Boulevard,
Tallahassee, Florida 32399-3000
AID# 30439

OAL2
[ 245+/- acres]

**BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA**

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**LEASE AGREEMENT**

**Lease Number 4790**

THIS LEASE AGREEMENT, made and entered into this 17th day of April 2018, by and between the **BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA** hereinafter referred to as "LESSOR," and the **CITY OF JACKSONVILLE, FLORIDA**, a Florida municipal corporation, hereinafter referred to as "LESSEE."

LESSOR, for and in consideration of mutual covenants and agreements hereinafter contained, does hereby lease to said LESSEE, the lands described in paragraph 2 below, together with the improvements thereon, and subject to the following terms and conditions:

1. **DELEGATIONS OF AUTHORITY**: LESSOR'S responsibilities and obligations herein shall be exercised by the Division of State Lands, State of Florida Department of Environmental Protection.

2. **DESCRIPTION OF PREMISES**: The property subject to this lease contains approximately 245 acres, is situated in the County of Duval, State of Florida and is more particularly described in Exhibit "A" attached hereto and hereinafter called the "leased premises".

3. **TERM**: The term of this lease shall be for a period of twenty five (25) years commencing on April 17, 2018, and ending on April 16, 2043, unless sooner terminated pursuant to the provisions of this lease.

4. **PURPOSE**: LESSEE shall manage the leased premises only for the conservation and protection of natural and historical resources and for resource based public outdoor activities and education which are compatible with the conservation

and protection of these public lands, as set forth in subsection 259.032(11), Florida Statutes, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 8 of this lease.

5. **QUIET ENJOYMENT AND RIGHT OF USE**: LESSEE shall have the right of ingress and egress to, from and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.

6. **UNAUTHORIZED USE**: LESSEE shall, through its agents and employees, prevent the unauthorized use of the leased premises or any use thereof not in conformity with this lease.

7. **ASSIGNMENT**: This lease shall not be assigned in whole or in part without the prior written consent of LESSOR, which consent shall not be unreasonably withheld. Any assignment made either in whole or in part without the prior written consent of LESSOR shall be void and without legal effect.

8. **MANAGEMENT PLAN**: LESSEE shall prepare and submit a Management Plan for the leased premises in accordance with Section 253.034, Florida Statutes and subsection 18-2.021(4), Florida Administrative Code. The Management Plan shall be submitted to LESSOR for approval through the Division of State Lands, State of Florida Department of Environmental Protection. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises without the prior written approval of LESSOR until the Management Plan is approved. LESSEE shall provide LESSOR with an opportunity to participate in all phases of preparing and developing the Management Plan for the leased premises. The Management Plan shall be submitted to LESSOR in draft form for review and comments within ten months of the effective date of this lease. LESSEE shall give LESSOR reasonable notice of the application for and receipt of any state, federal or local permits as well as any public hearings or meetings relating to the development or use of the leased premises. LESSEE shall not proceed with development of said leased premises including, but not limited to, funding, permit applications, design or building contracts until the Management Plan required herein has been submitted and approved. Any financial commitments made by LESSEE which are not in compliance with the terms of this lease shall be done at LESSEE'S own risk. The Management Plan shall emphasize the original management concept as approved by LESSOR at the time of acquisition which established the primary public purpose for which the leased premises were acquired. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by LESSEE and LESSOR. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify management strategies

for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

9. **EASEMENTS**: All easements of any nature including, but not limited to, utility easements are required to be granted by LESSOR. LESSEE is not authorized to grant any easements of any nature and any easement granted by LESSEE shall be void and without legal effect.

10. **SUBLEASES**: This lease is for the purposes specified herein and subleases of any nature are prohibited, without the prior written approval of LESSOR. Any sublease not approved in writing by LESSOR shall be void and without legal effect.

11. **RIGHT OF INSPECTION**: LESSOR or its duly authorized agents, representatives or employees shall have the right to reasonably inspect the leased premises and the works and operations of LESSEE in any matter pertaining to this lease.

12. **PLACEMENT AND REMOVAL OF IMPROVEMENTS**: All buildings, structures and improvements shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose, location and design. Further, no trees, other than non-native species, shall be removed or major land alterations done by LESSEE without the prior written approval of LESSOR. Removable equipment and removable improvements placed on the leased premises by LESSEE which do not become a permanent part of the leased premises will remain the property of LESSEE and may be removed by LESSEE before or upon termination of this lease.

13. **INSURANCE REQUIREMENTS**: During the term of this lease LESSEE shall procure and maintain policies of fire, extended risk, and liability insurance coverage. The extended risk and fire insurance coverage shall be in an amount equal to the full insurable replacement value of any improvements or fixtures located on the leased premises. The liability insurance coverage shall be in amounts not less than $200,000 per person and $300,000 per incident or occurrence for personal injury, death, and property damage on the leased premises. During the term of this lease, if Section 768.28, Florida Statutes, or its successor statute is subsequently amended to increase the amount of the liability coverages specified herein, LESSEE shall immediately obtain liability coverage for the increased amounts. Such policies of insurance shall name LESSOR and the State of Florida as additional insureds. LESSEE shall submit written evidence of having procured all insurance policies required herein prior to the effective date of this lease and shall submit annually thereafter, written evidence of maintaining such insurance policies to the Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000. LESSEE shall purchase all

policies of insurance from a financially-responsible insurer duly authorized to do business in the State of Florida. In lieu of purchasing insurance, LESSEE may elect to self-insure these coverages. Any certificate of self-insurance shall be issued or approved by the Chief Financial Officer, State of Florida. The certificate of self-insurance shall provide for casualty and liability coverage. LESSEE shall immediately notify LESSOR and the insurer of any erection or removal of any building or other improvement on the leased premises and any changes affecting the value of any improvements and shall request the insurer to make adequate changes in the coverage to reflect the changes in value. LESSEE shall be financially responsible for any loss due to failure to obtain adequate insurance coverage and the failure to maintain such policies or certificate in the amounts set forth shall constitute a breach of this lease.

14. **LIABILITY**: LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this easement or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims. LESSEE is responsible for, and, to the extent allowed by law, shall indemnify, protect, defend, save and hold harmless LESSOR and the State of Florida, its officers, agents and employees from any and all damages, claims, costs, expense, including attorney's fees, demands, lawsuits, causes of action or liability of any kind or nature arising out of all personal injury and property damage attributable to the negligent acts or omissions of LESSEE, and its officers, employees, and agents. Nothing herein shall be construed as a waiver of sovereign immunity enjoyed by any party hereto, as provided in Section 768.28, Florida Statutes, as amended from time to time, or any other law providing limitations on claims. In the event LESSEE subcontracts any part or all of the work performed in the leased premises, the LESSEE shall require each and every subcontractor to identify the LESSOR as an additional insured on all insurance policies required by the LESSEE. Any contract awarded by LESSEE for work in the leased premises shall include a provision whereby the LESSEE'S subcontractor agrees to indemnify, pay on behalf, and hold the LESSOR harmless for all injuries and damages arising in connection with the LESSEE'S subcontract.

15. **PAYMENT OF TAXES AND ASSESSMENTS**: LESSEE shall assume full responsibility for and shall pay all taxes, assessments, liens or other similar liabilities that accrue to the leased premises or to the improvements thereon arising after this lease commences including any and all ad valorem taxes and drainage and special assessments or personal property taxes of every kind and all construction or materialman's liens which may be hereafter lawfully assessed and levied against the leased

premises subsequent to the effective date of this lease. In no event shall the LESSEE be held liable for such liabilities which arose prior to the effective date of this lease.

16. **NO WAIVER OF BREACH**: The failure of LESSOR to insist in any one or more instances upon strict performance of any one or more of the covenants, terms and conditions of this lease shall not be construed as a waiver of such covenants, terms or conditions, but the same shall continue in full force and effect, and no waiver of LESSOR of any of the provisions hereof shall in any event be deemed to have been made unless the waiver is set forth in writing, signed by LESSOR.

17. **TIME**: Time is expressly declared to be of the essence of this lease.

18. **NON-DISCRIMINATION**: LESSEE shall not discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the leased premises or upon lands adjacent to and used as an adjunct of the leased premises.

19. **UTILITY FEES**: LESSEE shall be responsible for the payment of all charges for the furnishing of gas, electricity, water and other public utilities to the leased premises and for having the utilities turned off when the leased premises are surrendered.

20. **MINERAL RIGHTS**: This lease does not cover petroleum or petroleum products or minerals and does not give the right to LESSEE to drill for or develop the same.

21. **RIGHT OF AUDIT**: LESSEE shall make available to LESSOR all financial and other records relating to this lease, and LESSOR shall have the right to audit such records at any reasonable time during the term of this lease. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to the provisions of Chapter 119, Florida Statutes.

22. **CONDITION OF PREMISES**: LESSOR assumes no liability or obligation to LESSEE with reference to the condition of the leased premises. The leased premises herein are leased by LESSOR to LESSEE in an "as is" condition, with LESSOR assuming no responsibility for the care, repair, maintenance or improvement of the leased premises for the benefit of LESSEE.

23. **COMPLIANCE WITH LAWS**: LESSEE agrees that this lease is contingent upon and subject to LESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

24. **NOTICE**: All notices given under this lease shall be in writing and shall be served by certified mail including, but not limited to, notice of any violation served pursuant to Section 253.04, Florida Statutes, to the last address of the party to whom notice is to be given, as designated by such party in writing. LESSOR and LESSEE hereby designate their address as follows:

LESSOR: State of Florida Department of Environmental Protection
Division of State Lands
Bureau of Public Land Administration, MS 130
3800 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

LESSEE: City of Jacksonville
Natural and Marine Resources
214 North Hogan Streetm 4th Floor, Ste. 437
Jacksonville, FL 32202

25. **BREACH OF COVENANTS, TERMS, OR CONDITIONS**: Should LESSEE breach any of the covenants, terms, or conditions of this lease, LESSOR shall give written notice to LESSEE to remedy such breach within sixty days of such notice. In the event LESSEE fails to remedy the breach to the satisfaction of LESSOR within sixty days of receipt of written notice, LESSOR may either terminate this lease and recover from LESSEE all damages LESSOR may incur by reason of the breach including, but not limited to, the cost of recovering the leased premises or maintain this lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

26. **DAMAGE TO THE PREMISES**: (a) LESSEE shall not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises or adjacent properties, any act which may result in damage or depreciation of value to the leased premises or adjacent properties, or any part thereof. (b) LESSEE shall not generate, store, produce, place, treat, release or discharge any contaminants, pollutants, or pollution, including, but not limited to, hazardous or toxic substances, chemicals or other agents on, into, or from the leased premises or any adjacent lands or waters in any manner not permitted by law. For the purposes of this lease, "hazardous substances" shall mean and include those elements or compounds defined in 42 USC Section 9601 or which are contained in the list of hazardous substances adopted by the United States Environmental Protection Agency (EPA) and the list of toxic pollutants designated by the United States Congress or the EPA or defined by any other federal, state or local statute, law, ordinance, code, rule, regulation, order or decree regulating, relating to, or imposing liability or standards of conduct concerning any hazardous, toxic or dangerous waste, substance, material, pollutant or contaminant. "Pollutants" and "pollution" shall mean those products or substances defined in Chapters 376 and 403, Florida Statutes, and the

rules promulgated thereunder, all as amended or updated from time to time. In the event of LESSEE's failure to comply with this paragraph, LESSEE shall, at its sole cost and expense, promptly commence and diligently pursue any legally required closure, investigation, assessment, cleanup, decontamination, remediation, restoration and monitoring of (1) the leased premises, and (2) all off-site ground and surface waters and lands affected by LESSEE's such failure to comply, as may be necessary to bring the leased premises and affected off-site waters and lands into full compliance with all applicable federal, state or local statutes, laws, ordinances, codes, rules, regulations, orders and decrees, and to restore the damaged property to the condition existing immediately prior to the occurrence which caused the damage. LESSEE'S obligations set forth in this paragraph shall survive the termination or expiration of this lease. This paragraph shall not be construed as a limitation upon LESSEE'S obligations as set forth in paragraph 14 of this lease, nor upon any other obligations or responsibilities of LESSEE as set forth herein. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction, and to LESSOR, all within the reporting periods of the applicable governmental agencies. This paragraph shall not be deemed to apply to any conditions existing prior to the effective date of this lease.

27. **ENVIRONMENTAL AUDIT**: At LESSOR'S discretion, LESSEE shall provide LESSOR with a current Phase I environmental site assessment conducted in accordance with the State of Florida Department of Environmental Protection, Division of State Lands' standards prior to termination of this lease, and if necessary a Phase II environmental site assessment.

28. **SURRENDER OF PREMISES**: Upon termination or expiration of this lease, LESSEE shall surrender the leased premises to LESSOR. In the event no further use of the leased premises or any part thereof is needed, LESSEE shall give written notification to the Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection ("Division"), Mail Station 130, 3800 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, at least six months prior to the release of any or all of the leased premises. Notification shall include a legal description, this lease number, and an explanation of the release. The release shall only be valid if approved by LESSOR through the execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon termination

or expiration of this lease, all improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination or expiration of this lease shall be at LESSOR'S sole discretion. Prior to surrender of all or any part of the leased premises a representative of the Division shall perform an on-site inspection and the keys to any building on the leased premises shall be turned over to the Division.

29. **BEST MANAGEMENT PRACTICES**: LESSEE shall implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.018(2)(h), Florida Administrative Code, which have been selected, developed, or approved by LESSOR, LESSEE or other land managing agencies for the protection and enhancement of the leased premises.

30. **PUBLIC LANDS ARTHROPOD CONTROL PLAN**: LESSEE shall identify and subsequently designate to the respective arthropod control district or districts within one year of the effective date of this lease all of the environmentally sensitive and biologically highly productive lands contained within the leased premises, in accordance with Section 388.4111, Florida Statutes and Chapter 5E-13, Florida Administrative Code, for the purpose of obtaining a public lands arthropod control plan for such lands.

31. **PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES**: Fee title to the leased premises is held by LESSOR. LESSEE shall not do or permit anything to be done which purports to create a lien or encumbrance of any nature against the real property contained in the leased premises including, but not limited to, mortgages or construction liens against the leased premises or against any interest of LESSOR therein.

32. **PARTIAL INVALIDITY**: If any term, covenant, condition or provision of this lease shall be ruled by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

33. **ARCHAEOLOGICAL AND HISTORIC SITES**: Execution of this lease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been obtained from the State of Florida Department of State, Division of Historical Resources. The Management Plan prepared pursuant to Chapter 18-2 Florida Administrative Code,

shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect and preserve the archaeological and historic sites and properties on the leased premises.

34. **SOVEREIGNTY SUBMERGED LANDS**: This lease does not authorize the use of any lands located waterward of the mean or ordinary high water line of any lake, river, stream, creek, bay, estuary, or other water body or the waters or the air space thereabove.

35. **ENTIRE UNDERSTANDING**: This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR.

36. **MAINTENANCE OF IMPROVEMENTS**: LESSEE shall maintain the real property contained within the leased premises and the improvements located thereon, in a state of good condition, working order and repair including, but not limited to, removing all trash or litter, maintaining all planned improvements as set forth in the approved Management Plan, and meeting all building and safety codes. LESSEE shall maintain any and all existing roads, canals, ditches, culverts, risers and the like in as good condition as the same may be on the effective date of this lease.

37. **GOVERNING LAW**: This lease shall be governed by and interpreted according to the laws of the State of Florida.

38. **SIGNS**: LESSEE shall ensure that the area is identified as being publicly owned and operated as a public facility in all signs, literature and advertising. If federal grants or funds are used by LESSEE for any project on the leased premises LESSEE shall erect signs identifying the leased premises as a federally assisted project.

39. **SECTION CAPTIONS**: Articles, subsections and other captions contained in this lease are for reference purposes only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this lease or any provisions thereof.

40. **ADMINISTRATIVE FEE**: LESSEE shall pay LESSOR an annual administrative fee of $300 pursuant to subsection 18-2.021(8), Florida Administrative Code. The initial annual administrative fee shall be payable within thirty days from the date of execution of this lease agreement and shall be prorated based on the number of months or fraction thereof remaining in the fiscal year of execution. For purposes of this lease agreement, the fiscal year shall be the period extending from July 1 to June 30. Each annual payment thereafter shall be due and payable on July 1 of each subsequent year.

41. **RIGHT OF TERMINATION**: Anything contained in this lease to the contrary notwithstanding, LESSOR shall have the right and option to terminate this lease, at will, for any reason whatsoever, by giving the LESSEE written notice of such

election to terminate at least six (6) months prior to the effective date of such termination. LESSEE shall continue to honor its obligations under the lease until the effective date of the termination, including LESSEE's obligations concerning surrender of the leased premises.

42. **SPECIAL LEASE CONDITIONS**: The following special lease conditions shall apply to this lease: **None**

[*Remainder of page intentionally left blank; Signature page follows*]

IN WITNESS WHEREOF, the parties have caused this lease agreement to be executed on the day and year first above written.

WITNESSES:

Original Signature

Print/Type Name of Witness

Original Signature

Print/Type Name of Witness

**BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA**

(SEAL)

BY: _____

Cheryl C. McCall, Chief, Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, as agent for and on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida

"LESSOR"

**STATE OF FLORIDA**
**COUNTY OF LEON**

The foregoing instrument was acknowledged before me this 17th day of APRIL, 2017, by Cheryl C. McCall, Chief, Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, as agent for and on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. She is personally known to me.

APPROVED SUBJECT TO PROPER EXECUTION:

DEP Attorney — Date: 2-9-2017

Notary Public, State of Florida

Printed, Typed or Stamped Name

My Commission Expires:

DAVID LEE FEWELL
MY COMMISSION # GG 086842
EXPIRES: July 24, 2021
Bonded Thru Notary Public Underwriters

Commission/Serial No.

WITNESSES:

Original Signature

Alice W. Newman

Typed/Printed Name of ~~Witness~~

Original Signature

Typed/Printed Name of Witness

CITY OF JACKSONVILLE, FLORIDA

BY: _____
Lenny Curry, Mayor

Sam E. Mousa
Chief Administrative Officer
For: Mayor Lenny Curry
Under Authority of:
Executive Order No. 2015-05

"LESSEE"

**STATE OF FLORIDA**

**COUNTY OF DUVAL**

The foregoing instrument was acknowledged before me this 22nd day of March, 2018 by Lenny Curry as Mayor, for and on behalf of the City of Jacksonville, Florida. He is personally known to me or who has produced , _____ as identification.

My Commission Expires:

ALICE W. NEWMAN
Notary Public - State of Florida
My Comm. Expires Jun 19, 2018
Commission # FF 99760

Commission/Serial No.

Signature of Notary Public

Notary Public, State of Florida

Alice W. Newman
Printed, Typed or Stamped Name

ATTEST:

Corporation Secretary
City of Jacksonville

CITY OF JACKSONVILLE FLORIDA

FORM APPROVED

By: _____
Office of General Counsel

**EXHIBIT "A"**

**HUGUENOT PARK**
**TRUSTEES LEASE NO. 4709**

A portion of those lands described in Deed Book 1015, Page 83, Deed Book 1037, Page 158, and Official Records Book 1634, Page 217, Public Records of Duval County, Florida, as follows:

All that portion of Little Fort George Island lying North of the St. Johns River, East of the section line between Sections 19 and 20, Township 1 South, Range 29 East, South of the section line between Sections 17 and 20, Township 1 South, Range 29 East, and West of Fort George Inlet and the Atlantic Ocean;

LESS AND EXCEPT:

Those lands described in Deed Book 458, Page 173, said Public Records, as follows:

A certain strip of land 1700 feet long and 100 feet wide, situate, lying and being in the Eastern part of Fort George Island, Florida, in Section 37 of Zepheniah Kingsley Grant, in Township One (1) South, and Range Twenty-nine (29) East. This strip of land is further described as, extending in a westerly direction 1700 feet from the present shore end of the north jetty two and one-half (2 1/2) miles inside the entrance to St. Johns River, Florida, to Haulover Creek; in prolongation of, and 850 feet Eastwardly and Westwardly from a survey mark called Station VII in the axis of the said north jetty, and extending in a Northwardly and Southwardly direction 50 feet on each side of the axis of the north jetty prolonged Westwardly and measured on lines perpendicular to the axis of the said north jetty.

ALSO LESS AND EXCEPT:

Those lands described in Deed Book 817, Page 307, said Public Records, as follows:

A certain tract or area lying and being in the southeastern part of Little Fort George or Xalvia Island in Township One (1) South, Range Twenty-Nine (29) East, Tallahassee Meridian. A portion of said tract or area being a part of Little Fort George or Xalvia Island. Said tract or are being further described as:

Beginning at a point 2,439 feet easterly from the West line of Section 20, measured perpendicular to said section line, from a point in said section line 2,396.6 feet southerly from the northwest corner of Section 20. Said "Point of Beginning" being 850 feet easterly from a United States Engineer Department Survey mark called Station VII, measured along the axis of the North Jetty, whose bearing is South 72°55'20" East; thence northerly 500 feet measured perpendicular to the axis of the North Jetty to a point; thence easterly parallel with and 500 feet distant from the axis of the North Jetty, a distance of 6,450 feet, more or less, to a point; thence easterly, parallel with and 500 feet distant from the axis of the North Jetty whose bearing is South 84°18'20" East, a distance of 6,450 feet, more or less, to a point 500 feet northerly form the axis of the North Jetty, in a line drawn at right angles to said axis, at the East end of the North Jetty; thence southerly along said line 1,500 feet to a point 1,000 feet distant from the axis of the North Jetty; thence parallel with and 1,000 feet distant from the axis of the North Jetty a distance of 6,600 feet, more or less, to a point; thence parallel with and 1,000 feet distant from the axis of the North Jetty a distance of 6,600 feet, more or less, to a point 1,000 feet southerly from the point of beginning measured perpendicular to the axis of the North Jetty; thence northerly 1,000 feet to the Point of Beginning.

AND:

A portion of those lands described in Deed Book 1015, Page 83 and Official Records Book 1634, Page 217, said Public Records, as follows:

The South three-fifths (3/5ths) of Section 17, Township 1 South, Range 29 East;

DSL APPROVED
BY MJA
DATE 1-26-'17

LESS AND EXCEPT:

Those two parcels described in Official Records Book 3533, Page 353, said Public Records, said parcels described as follows:

Parcel 1:

Begin at the intersection of the waters of Fort George Inlet on its Westerly side and the Northwesterly right of way line of Heckscher Drive, State Road No. 105 or U.S. No. A1A, said intersection being North 56°37'30" East, 138.3 feet from the Point of Tangency of a curve concave to the Southeast and having a radius of 1868.24 feet as measured along the Northwesterly right of way line of said Heckscher Drive and having a width of 200.0 feet; thence Northerly along the Westerly waters of Fort George Inlet to an iron that is North 11°22'30" West, 219.7 feet from the Point of Beginning; thence South 68°26'30" West, 122.2 feet to a point in the Easterly right of way line of a 30.0 foot right of way; thence South 5°03'30" East, 259.97 feet to the Northwesterly right of way line of said Heckscher Drive to a point, said point to be known hereafter as Point A; thence Northeasterly along the last said right of way and being along the heretofore described curve a chord bearing and distance of North 56°16'57" East, 22.33 feet to its Point of Tangency; thence North 56°37'30" East 138.3 feet to the Point of Beginning.

Parcel 2:

Commence at the above described Point A; thence South 55°24'40" West, 34.48 feet along the said Northwesterly right of way line of Heckscher Drive to the Point of Beginning; thence North 05°03'30" West, 243.07 feet to a point; thence South 68°26'30" West, 196.0 feet to a point; thence South 03°33'17" East, 319.17 feet to a point in the said Northwesterly right of way line of Heckscher Drive; thence along a curve concave to the Southeast having a radius of 1868.24 feet, a chord bearing and distance of North 50°54'11" East, 237.0 feet to the Point of Beginning.

AND:

Those accreted lands within Section 20 and unsurveyed Section 17, Township 1 South, Range 29 East, Duval County, Florida, said lands lying southeasterly of Fort George Inlet and northerly of and adjacent to the northerly line of those lands described in Board of Trustees of the Internal Improvement Trust Fund Deed No. 18,471 as recorded in Deed Book 817, Page 308, Public Records of Duval County, Florida, said northerly line being described as follows:

Commence at the Northwest corner of said Section 20, thence South 0°47'31" East along the westerly line of said Section 20 a distance of 2396.6 feet; thence North 89°12'29" East a distance of 2,439 feet to a point on the axis of the North Jetty, said point being the Point of Beginning of those lands described in Deed Book 817, Page 308; thence North 17°20'09" East along the westerly line of said lands a distance of 500.00 feet to the Northwest corner of said lands and the POINT OF BEGINNING of said northerly line; thence South 72°39'51" East along said northerly line a distance of 6,450 feet to an angle point in the northerly boundary of said lands and the POINT OF TERMINATION of the herein described line.

LESS AND EXCEPT from all above described lands, the right of way for Heckscher Drive, also known as State Road No. 105, also known as U.S. Highway No. A1A.

DSL APPROVED
BY MJA
DATE 1-6-'17

**THIS PAGE AND ANY FOLLOWING PAGES ARE ATTACHED ONLY FOR STATE OF FLORIDA TRACKING PURPOSES AND FORM NO PART OF THE INSTRUMENT AND ARE NOT TO BE RELIED ON BY ANY PARTY**

# Appendix B. Lease with USACE

Lease No. DACW17-1-13-0002
Supercedes DACW17-1-80-2

**DEPARTMENT OF THE ARMY**

**LEASE TO NON-STATE GOVERNMENTAL AGENCIES**

**FOR PUBLIC PARK AND RECREATIONAL PURPOSES**

**HUGUENOT MEMORIAL PARK**

**JACKSONVILLE HARBOR**

**DUVAL COUNTY, FLORIDA**

**THIS LEASE** is made on behalf of the United States, between the **SECRETARY OF THE ARMY**, hereinafter referred to as the Secretary, and the **CITY OF JACKSONVILLE, FLORIDA**, hereinafter referred to as the Lessee,

**WITNESSETH:**

That the Secretary, by authority of Title 16, United States Code, Section 460d, and for the consideration hereinafter set forth, hereby leases to the Lessee, an area comprising 80.07 acres, more or less, as hatchured in red on Exhibits "A" and "A-1", attached hereto and made a part hereof, hereinafter referred to as the premises, for public park and recreational purposes.

**THIS LEASE** is granted subject to the following conditions:

**1. TERM**

Said premises are hereby leased for a term of twenty-five (25) years, beginning 1 January 2013 and ending 31 December 2038. This lease shall replace and supersede Department of the Army Lease No. DACW17-1-80-2.

**2. CONSIDERATION**

The consideration for this lease is the operation and maintenance of the premises by the Lessee for the benefit of the United States and the general public in accordance with the conditions herein set forth.

**3. NOTICES**

All correspondence and notices to be given pursuant to this lease shall be addressed, if to the Lessee, to City of Jacksonville, Department of Parks and Recreation, 214 North Hogan Street, 3rd Floor, Jacksonville, Florida 32202; and, if to the United States, to the District Engineer, ATTN: Chief, Real Estate Division, Post Office Box 4970, Jacksonville, Florida 32232-0019, or as may from time to time otherwise be directed by the parties. Notice shall be deemed to have been duly given if and when enclosed in a properly sealed

envelope, or wrapper, addressed as aforesaid, and deposited, postage prepaid, in a post office regularly maintained by the United States Postal Service.

## 4. AUTHORIZED REPRESENTATIVES

Except as otherwise specifically provided, any reference herein to "Secretary of the Army," "District Engineer," "said officer" or "Lessor" shall include their duly authorized representatives. Any reference to "Lessee" shall include sublessees, assignees, transferees, concessionaires, and its duly authorized representatives.

## 5. DEVELOPMENT PLANS

The Lessee shall be guided by an annual Plan of Operation and Maintenance in furtherance of the Lessee's implementing Plan of Recreational Development and Management (Development Plan), attached as Exhibit "B" which shows the facilities and services necessary to meet the current and potential public demand and the management and development activities to be undertaken by the Lessee and any subleases. Each year the Lessee will submit the annual Plan to be mutually agreed on between the Lessee and the District Engineer. Such annual Plan shall include but is not limited to the following:

a. Plans for management, maintenance and development activities to be undertaken by the Lessee and any sublessees.

b. Report of the management, maintenance and development accomplishments of the Lessee for the preceding year.

c. Report on any significant modification of policies or procedures which are planned for the following year as well as those implemented in the preceding year.

d. Minor modifications to the Development Plan. Major modifications are to be accomplished by amendment to the Plan before proceeding to implement any changes in the development or management of the leased premises.

e. Budget of the Lessee for carrying out all activities for the upcoming year.

f. Personnel to be used in the management of the leased premises.

g. Annual certification that all water and sanitary systems on the premises have been inspected and comply with Federal, state and local standards. Lessee will also provide a statement of compliance with the Rehabilitations Act and the Americans with Disabilities Act, as required in the Condition on **NON-DISCRIMINATION**, noting any deficiencies and providing a schedule for correction.

The use and occupation of the premises shall be subject to the general supervision and approval of the District Engineer. During the term of the lease, the District Engineer will notify the Lessee of any updates to the existing project Master Plan affecting the premises and the Lessee may provide comments.

## 6. STRUCTURES AND EQUIPMENT

The Lessee shall have the right, during the term of the lease, to erect such structures and to provide such equipment upon the premises as may be necessary to furnish the facilities and services authorized. Those structures and equipment shall be and remain the property of the Lessee, except as otherwise provided in the Condition on **RESTORATION**. However, no structures may be erected or altered upon the premises unless and until the type of use, design, and proposed location or alteration thereof shall have been approved in writing by the District Engineer. The District Engineer may require the Lessee, upon the completion of each of the proposed developments to furnish complete "as built" construction plans for all facilities.

## 7. APPLICABLE LAWS AND REGULATIONS

a. The Lessee shall comply with all applicable Federal laws and regulations and with all applicable laws, ordinances, and regulations of the state, county, and municipality wherein the premises are located, including, but not limited to, those regarding construction, health, safety, food service, water supply, sanitation, use of pesticides, and licenses or permits to do business. The Lessee shall make and enforce such regulations as are necessary and within its legal authority in exercising the privileges granted in this lease, provided that such regulations are not inconsistent with those issued by the Secretary of the Army or with the provisions of 16 U.S.C. § 460d.

b. The Lessee will provide an annual certification that all water and sanitary systems on the premises have been inspected and comply with Federal, state and local standards. The Lessee will also provide a statement of compliance with the Rehabilitations Act and the Americans with Disability Act, as required in the Condition on **NON-DISCRIMINATION**, noting any deficiencies and providing a schedule for correction.

## 8. CONDITION OF PREMISES

a. The Lessee acknowledges that it has inspected the premises, knows its condition, and understands that the same is leased without any representations or warranties whatsoever and without obligation on the part of the United States to make any alterations, repairs, or additions thereto.

## 9. FACILITIES AND SERVICES

The Lessee shall provide the facilities and services as agreed upon in the Development Plan referred to in the Condition on **DEVELOPMENT PLANS** either directly or through subleases or concession agreements that have been reviewed and accepted by the District Engineer. These subleases or agreements shall state: (1) that they are granted subject to the provisions of this lease; and (2) that the agreement will not be effective until the third party activities have been approved by the District Engineer. The Lessee will not allow any third party activities with a rental to the Lessee or prices to the public which would give the third party an undue economic advantage or circumvent the intent of the Development Plan. The rates and prices charged by the Lessee or its sub-lessees or concessionaries shall be reasonable and comparable to rates charged for similar goods and services by others in the area. The use of sub-lessees and concessionaires will not relieve the Lessee from the primary responsibility for ensuring compliance with all of the terms and conditions of this lease.

## 10. TRANSFERS, ASSIGNMENTS, SUBLEASES

a. Without prior written approval of the District Engineer, the Lessee shall neither transfer nor assign this lease nor sublet the premises or any part thereof, nor grant any interest, privilege, or license whatsoever in connection with this lease.

b. The Lessee will not sponsor or participate in timeshare ownership of any structures, facilities, accommodations, or personal property on the premises. The Lessee will not subdivide nor develop the premises into private residential development.

## 11. FEES

Fees may be charged by the Lessee for the entrance to or use of the premises or any facilities, however, no user fees may be charged by the Lessee or its sub-lessees for use of facilities developed in whole or part with Federal funds if a user charge by the Corps of Engineers for the facility would be prohibited under law.

## 12. ACCOUNTS, RECORDS AND RECEIPTS

All monies received by the Lessee from operations conducted on the premises, including, but not limited to, entrance, admission and user fees and rental or other consideration received from its concessionaires, may be utilized by the Lessee for the administration, maintenance, operation and development of the premises. Beginning 5 years from the date of this lease and continuing at 5-year intervals, any such monies not so utilized or programmed for utilization within a reasonable time shall be paid to the District Engineer. The Lessee shall establish and maintain accurate records and accounts and provide an annual statement of receipts and expenditures to the District Engineer. Annual or weekly entrance fees not collected on the project, which also are honored at other recreational areas operated by the Lessee, are excluded from this requirement. The District Engineer shall have the right to perform audits or to require the Lessee to audit the records and accounts of the Lessee, third party concessionaires and sub-lessees, in accordance with auditing standards and procedures promulgated by the American Institute of Certified Public Accountants or by the state, and furnish the District Engineer with the results of such an audit.

## 13. PROTECTION OF PROPERTY

The Lessee shall be responsible for any damage that may be caused to property of the United States by the activities of the Lessee under this lease and shall exercise due diligence in the protection of all property located on the premises against fire or damage from any and all other causes. Any property of the United States damaged or destroyed by the Lessee incident to the exercise of the privileges herein granted shall be promptly repaired or replaced by the Lessee to the satisfaction of the District Engineer, or, at the election of the District Engineer, reimbursement may be made therefor by the Lessee in an amount necessary to restore or replace the property to a condition satisfactory to the District Engineer.

## 14. HOLD HARMLESS

The United States shall not be responsible for damages to property or injuries to persons which may arise from or be incident to the exercise of the privileges herein granted, or for damages to the property of the Lessee, or for damages to the property or injuries to the person of the Lessee's officers, agents, servants, or employees or others who may be on the premises at their invitation or the invitation of any one of them, arising from or incident to the flooding of the premises by the Government or flooding from any other cause, or arising from or incident to any other governmental activities, and the Lessee shall hold the United States harmless from any and all such claims.

## 15. RIGHT TO ENTER AND FLOOD

The right is reserved to the United States, its officers, agents, and employees to enter upon the premises at any time and for any purpose necessary or convenient in connection with Government purposes; to make inspections; to remove timber or other material, except property of the Lessee; to flood the premises; to manipulate the level of the lake or pool in any manner whatsoever; and/or to make any other use of the land as may be necessary in connection with project purposes, and the Lessee shall have no claim for damages on account thereof against the United States or any officer, agent, or employee thereof.

## 16. LIGHTS, SIGNALS AND NAVIGATION

There shall be no unreasonable interference with navigation by the exercise of the privileges granted by this lease. If the display of lights and signals on any work hereby authorized is not otherwise provided for by law, such lights and signals as may be prescribed by the Coast Guard or by the District Engineer shall be installed and maintained by and at the expense of the Lessee.

## 17. INSURANCE

a. At the commencement of this lease, the Lessee, unless self-insured, and its sub-lessees and concessionaires at the commencement of operating under the terms of this lease as third parties, shall obtain from a reputable insurance company or companies contracts of liability insurance. The insurance shall provide an amount not less than that which is prudent, reasonable and consistent with sound business practices or a minimum Combined Single Limit of $10,000,000.00, whichever is greater, for any number of persons or claims arising from any one incident with respect to bodily injuries or death resulting therefrom, property damage, or both, suffered or alleged to have been suffered by any person or persons, resulting from the operations of the Lessee, sub-lessees and concessionaires under the terms of this lease. The Lessee shall require its insurance company to furnish to the District Engineer a copy of the policy or policies, or, if acceptable to the District Engineer, certificates of insurance evidencing the purchase of such insurance. The District Engineer shall have the right to review and revise the amount of minimum liability insurance required.

b. The insurance policy or policies shall specifically provide protection appropriate for the types of facilities, services and products involved; and shall provide that the District Engineer be given thirty (30) days notice of any cancellation or change in such insurance.

c. In the event the Lessee is self-insured, the Lessee shall certify such self-insurance in writing in the minimum amount specified above to the District Engineer. The Lessee's insurance status shall not eliminate the requirement for its sub-lessees and concessionaires to have insurance from a reputable insurance carrier as set out above.

d. The District Engineer may require closure of any or all of the premises during any period for which the Lessee and/or its sub-lessees and concessionaires do not have the required insurance coverage.

**18. RESTORATION**

On or before the expiration of this lease or its termination by the Lessee, the Lessee shall vacate the premises, remove the property of the Lessee, and restore the premises to a condition satisfactory to the District Engineer. If, however, this lease is revoked, the Lessee shall vacate the premises, remove said property therefrom, and restore the premises to the aforesaid condition within such time as the District Engineer may designate. In either event, if the Lessee shall fail or neglect to remove said property and restore the premises, then, at the option of the District Engineer, said property shall either become the property of the United States without compensation therefor, or the District Engineer may cause the property to be removed and no claim for damages against the United States or its officers or agents shall be created by or made on account of such removal and restoration work. The Lessee shall also pay the United States on demand any sum which may be expended by the United States after the expiration, revocation, or termination of this lease in restoring the premises.

**19. NON-DISCRIMINATION**

a. The Lessee shall not discriminate against any person or persons or exclude them from participation in the Lessee's operations, programs or activities conducted on the leased premises, because of race, color, religion, sex, age, handicap, or national origin. The Lessee will comply with the Americans with Disabilities Act and attendant Americans with Disabilities Act Accessibility Guidelines (ADAAG) published by the Architectural And Transportation Barriers Compliance Board.

b. The Lessee, by acceptance of this lease, is receiving a type of Federal assistance and, therefore, hereby gives assurance that it will comply with the provisions of Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. § 2000d); the Age Discrimination Act of 1975 (42 U.S.C. § 6102); the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794); and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 CFR Part 300) issued as Department of Defense Directives 5500.11 and 1020.1, and Army Regulation 600-7. This assurance shall be binding on the Lessee, its agents, successors, transferees, sub-lessees and assignees.

**20. SUBJECT TO EASEMENTS**

This lease is subject to all existing easements, easements subsequently granted, and established access routes for roadways and utilities located, or to be located, on the premises, provided that the proposed grant of any new easement or route will be coordinated with the Lessee, and easements will not be granted which will, in the opinion of the District Engineer, interfere with developments, present or proposed, by the Lessee. The Lessee will not close any established access routes without written permission of the District Engineer.

## 21. SUBJECT TO MINERAL INTERESTS

This lease is subject to all outstanding mineral interests. As to federally owned mineral interests, it is understood that they may be included in present or future mineral leases issued by the Bureau of Land Management (BLM), which has responsibility for mineral development on Federal lands. The Secretary will provide lease stipulations to BLM for inclusion in such mineral leases that are designed to protect the premises from activities that would interfere with the Lessee's operations or would be contrary to local laws.

## 22. COMPLIANCE, CLOSURE, REVOCATION AND RELINQUISHMENT

a. The Lessee and/or any sub-lessees or licensees are charged at all times with full knowledge of all the limitations and requirements of this lease, and the necessity for correction of deficiencies, and with compliance with reasonable requests by the District Engineer. This lease may be revoked in the event that the Lessee violates any of the terms and conditions and continues and persists in such non-compliance, or fails to obtain correction of deficiencies by sub-lessees or licensees. The Lessee will be notified of any non-compliance, which notice shall be in writing or shall be confirmed in writing, giving a period of time in which to correct the non-compliance. Failure to satisfactorily correct any substantial or persistent non-compliance within the specified time is grounds for closure of all or part of the premises, temporary suspension of operation, or revocation of the lease, after notice in writing of such intent. Future requests by the Lessee to extend the lease, expand the premises, modify authorized activities, or assign the lease shall take into consideration the Lessee's past performance and compliance with the lease terms.

b. This lease may be relinquished by the Lessee by giving six (6) months prior written notice to the District Engineer in the manner prescribed in the Condition on **NOTICES**.

## 23. HEALTH AND SAFETY

a. The Lessee shall keep the premises in good order and in a clean, sanitary, and safe condition and shall have the primary responsibility for ensuring that any sub-lessees and concessionaires operate and maintain the premises in such a manner.

b. In addition to the rights of revocation for non-compliance, the District Engineer, upon discovery of any hazardous conditions on the premises that presents an immediate threat to health and/or danger to life or property, will so notify the Lessee and will require that the affected part or all of the premises be closed to the public until such condition is corrected and the danger to the public eliminated. If the condition is not corrected within the time specified, the District Engineer will have the option to: (1) correct the hazardous conditions and collect the cost of repairs from the Lessee; or, (2) revoke the lease. The Lessee and its assignees or sub-lessees shall have no claim for damages against the United States, or any officer, agent, or employee thereof on account of action taken pursuant to this condition.

## 24. PUBLIC USE

No attempt shall be made by the Lessee, or any of its sub-lessees or concessionaires, to forbid the full use by the public of the premises and of the water areas of the project, subject, however, to the authority and responsibility of the Lessee to manage the premises and provide safety and security to the visiting public.

## 25. PROHIBITED USES

a. The Lessee shall not permit gambling on the premises or install or operate, or permit to be installed or operated thereon, any device which is illegal, or use the premises or permit them to be used for any illegal business or purpose. There shall not be conducted on or permitted upon the premises any activity which would constitute a nuisance.

b. As an exception, some games of chance, such as raffles, games and sporting events, may be conducted by nonprofit organizations under special use permits issued in conjunction with special events, if permissible by state and local law. Any request to conduct such activities must be submitted in writing to the District Engineer.

c. In accordance with state and local laws and regulations, the Lessee may sell, store, or dispense, or permit the sale, storage, or dispensing of beer, malt beverages, light wines or other intoxicating beverages on the premises in those facilities where such service is customarily found. Bar facilities will only be permitted if offered in connection with other approved activities. Advertising of such beverages outside of buildings is not permitted. Carry out package sales of hard liquor is prohibited.

## 26. NATURAL RESOURCES

The Lessee shall cut no timber, conduct no mining operations, remove no sand, gravel, or kindred substances from the ground, commit no waste of any kind, nor in any manner substantially change the contour or condition of the premises, except as may be authorized under and pursuant to the Development Plan described in the Condition on **DEVELOPMENT PLANS** herein. The Lessee may salvage fallen or dead timber; however, no commercial use shall be made of such timber. Except for timber salvaged by the Lessee when in the way of construction of improvements or other facilities, all sales of forest products will be conducted by the United States and the proceeds therefrom shall not be available to the Lessee under the provisions of this lease.

## 27. DISPUTES CLAUSE

a. Except as provided in the Contract Disputes Act of 1978 (41 U.S.C. 601-613) (the Act), all disputes arising under or relating to this lease shall be resolved under this clause and the provisions of the Act.

b. "Claim," as used in this clause, means a written demand or written assertion by the Lessee seeking, as a matter of right, the payment of money in a sum certain, the adjustment of interpretation of lease terms, or other relief arising under or relating to this lease. A claim arising under this lease, unlike a claim relating to that lease, is a claim that can be resolved under a lease clause that provides for the relief sought by the Lessee. However, a written demand or written assertion by the Lessee seeking the payment of money exceeding $50,000 is not a claim under the Act until certified as required by subparagraph c.(2) below.

c. (1) A claim by the Lessee shall be made in writing and submitted to the District Engineer for a written decision. A claim by the Government against the Lessee shall be subject to a written decision by the District Engineer.

(2) For Lessee claims exceeding $50,000, the Lessee shall submit with the claim a certification that:

(i) The claim is made in good faith;

(ii) Supporting data are accurate and complete to the best of the Lessee's knowledge and belief; and

(iii) The amount requested accurately reflects the lease adjustment for which the Lessee believes the Government is liable.

(3) If the Lessee is an individual, the certificate shall be executed by that individual. If the Lessee is not an individual, the certification shall be executed by:

(i) A senior company official in charge at the Lessee's location involved; or

(ii) An officer or general partner of the Lessee having overall responsibility of the conduct of the Lessee's affairs.

d. For Lessee claims of $50,000 or less, the District Engineer must, if requested in writing by the Lessee, render a decision within 60 days of the request. For Lessee-certified claims over $50,000, the District Engineer must, within 60 days, decide the claim or notify the Lessee of the date by which the decision will be made.

e. The District Engineer's decision shall be final unless the Lessee appeals or files a suit as provided in the Act.

f. At the time a claim by the Lessee is submitted to the District Engineer or a claim by the Government is presented to the Lessee, the parties, by mutual consent, may agree to use alternative means of dispute resolution. When using alternate dispute resolution procedures, any claim, regardless of amount, shall be accompanied by the certificate described in paragraph c.(2) of this clause, and executed in accordance with paragraph c.(3) of this clause.

g. The Government shall pay interest on the amount found due and unpaid by the Government from (1) the date the District Engineer received the claim (properly certified if required), or (2) the date payment otherwise would be due, if that date is later, until the date of payment. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury, as provided in the Act, which is applicable to the period during which the District Engineer receives the claim, and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

h. The Lessee shall proceed diligently with the performance of the lease, pending final resolution of any request for relief, claim, appeal, or action arising under the lease, and comply with any decision of the District Engineer.

**28. ENVIRONMENTAL PROTECTION**

**THE LESSEE SHALL COMPLY WITH ALL NATIONAL ENVIRONMENTAL PROTECTION AGENCY (NEPA) REQUIREMENTS, TOGETHER WITH ANY CHANGES SUBSEQUENT TO THE COMPLETION OF THE NEPA PROCESS. THIS LEASE SHALL BE TERMINATED IF IT IS DETERMINED DURING THIS PROCESS THAT LEASING THE PREMISES FOR PUBLIC PARK AND RECREATIONAL PURPOSES IS DETRIMENTAL**

**TO THE ENVIRONMENT. PRIOR TO ANY PROPOSED CONSTRUCTION, THE LESSEE SHALL BE REQUIRED TO OBTAIN ALL NECESSARY PERMITS AND FULFILL ANY CONSULTATION REQUIREMENTS AS REQUIRED UNDER THE ENDANGERED SPECIES ACT.**

a. Within the limits of their respective legal powers, the parties to this lease shall protect the project against pollution of its air, ground, and water. The Lessee shall comply promptly with any laws, regulations, conditions or instructions affecting the activity hereby authorized, if and when issued by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency having jurisdiction to abate or prevent pollution. The disposal of any toxic or hazardous materials within the leased area is specifically prohibited. Such regulations, conditions, or instructions in effect or prescribed by the Environmental Protection Agency, or any Federal, state, interstate or local governmental agency, are hereby made a condition of this lease. The Lessee shall require all sanitation facilities on boats moored at the Lessee's facilities, including rental boats, to be sealed against any discharge into the lake. Services for waste disposal, including sewage pump-out of watercraft, shall be provided by the Lessee as appropriate. The Lessee shall not discharge waste or effluent from the premises in such a manner that the discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

b. The Lessee will use all reasonable means available to protect the environment and natural resources, and where damage nonetheless occurs from the Lessee's activities, the Lessee shall be liable to restore the damaged resources.

c. The Lessee must obtain approval in writing from the District Engineer before any pesticides or herbicides are applied to the premises.

## 29. ENVIRONMENTAL CONDITION OF PROPERTY

An Environmental Baseline Study (EBS) dated February 25, 2009 was previously developed and is attached hereto and made a part hereof as Exhibit "C". Upon expiration, revocation or termination of this lease, another environmental assessment shall be prepared which will document the environmental condition of the property at that time. A comparison of the two assessments will assist the District Engineer in determining any environmental restoration requirements. Any such requirements will be completed by the Lessee in accordance with the Condition on **RESTORATION.**

## 30. HISTORIC PRESERVATION

The Lessee shall not remove or disturb, or cause or permit to be removed or disturbed, any historical, archaeological, architectural or other cultural artifacts, relics, remains, or objects of antiquity. In the event such items are discovered on the premises, the Lessee shall immediately notify the District Engineer and protect the site and the material from further disturbance until the District Engineer gives clearance to proceed.

## 31. SOIL AND WATER CONSERVATION

The Lessee shall maintain in a manner satisfactory to the District Engineer, all soil and water conservation structures that may be in existence upon said premises at the beginning of, or that may be constructed by the Lessee during the term of, this lease, and the Lessee shall take appropriate measures to prevent or control soil erosion within the premises. Any

soil erosion occurring outside the premises resulting from the activities of the Lessee shall be corrected by the Lessee as directed by the District Engineer.

**32. TRANSIENT USE**

a. Camping, including transient trailers or recreational vehicles, at one or more campsites for a period longer than thirty (30) days during any sixty (60) consecutive day period is prohibited. The Lessee will maintain a ledger and reservation system for the use of any such campsites.

b. Occupying any lands, buildings, vessels or other facilities within the premises for the purpose of maintaining a full- or part-time residence is prohibited, except for employees residing on the premises for security purposes, if authorized by the District Engineer.

**33. COVENANT AGAINST CONTINGENT FEES**

The Lessee warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessee for the purpose of securing business. For breach or violation of this warranty, the United States shall have the right to annul this lease without liability or, in its discretion, to require the Lessee to pay, in addition to the lease rental or consideration, the full amount of such commission, percentage, brokerage, or contingent fee.

**34. OFFICIALS NOT TO BENEFIT**

No Member of or Delegate to Congress or Resident Commissioner shall be admitted to any share or part of this lease or to any benefits to arise therefrom. However, nothing herein contained shall be construed to extend to any incorporated company if the lease be for the general benefit of such corporation or company.

**35. MODIFICATIONS**

This lease contains the entire agreement between the parties hereto, and no modification of this agreement, or waiver, or consent hereunder shall be valid unless the same be in writing, signed by the parties to be bound or by a duly authorized representative; and this provision shall apply to this clause as well as all other conditions of this lease.

**36. DISCLAIMER**

This lease is effective only insofar as the rights of the United States in the premises are concerned; and the Lessee shall obtain such permission as may be required on account of any other existing rights. It is understood that the granting of this lease does not eliminate the necessity of obtaining any Department of the Army permit which may be required pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 3 March 1899 (30 Stat. 1151; 33 U.C.C. § 403), or Section 404 of the Clean Water Act (33 U.S.C. § 1344).

**IN WITNESS WHEREOF**, I have hereunto set my hand by authority/direction of the Secretary of the Army this 16th day of December, 2016.

AUDREY C. ORMEROD
Real Estate Contracting Officer
U.S. Army Engineer District
Jacksonville, Florida

THIS LEASE is also executed by the Lessee this 15 day of NOV, 2016.

**CITY OF JACKSONVILLE**

By: _____
Lenny Curry, Mayor

Sam E. Mousa
Chief Administrative Officer
For: Mayor Lenny Curry
Under Authority of:
Executive Order No. 2015-05

ATTEST:

By: _____

**CERTIFICATE OF AUTHORITY**

I, James R. McCain Jr., certify that I am the Corp. Secretary of the City Commission, City of Jacksonville, Florida, that Sam Mousa who signed the foregoing instrument on behalf of the Lessee was then CAO of the City Commission. I further certify that the said officer was acting within the scope of powers delegated to this officer by the governing body of the Lessee in executing said instrument.

Date: 11/28/16

_____
(Signature)

**FORM APPROVED**

_____
ASSISTANT GENERAL COUNSEL

Exhibit A

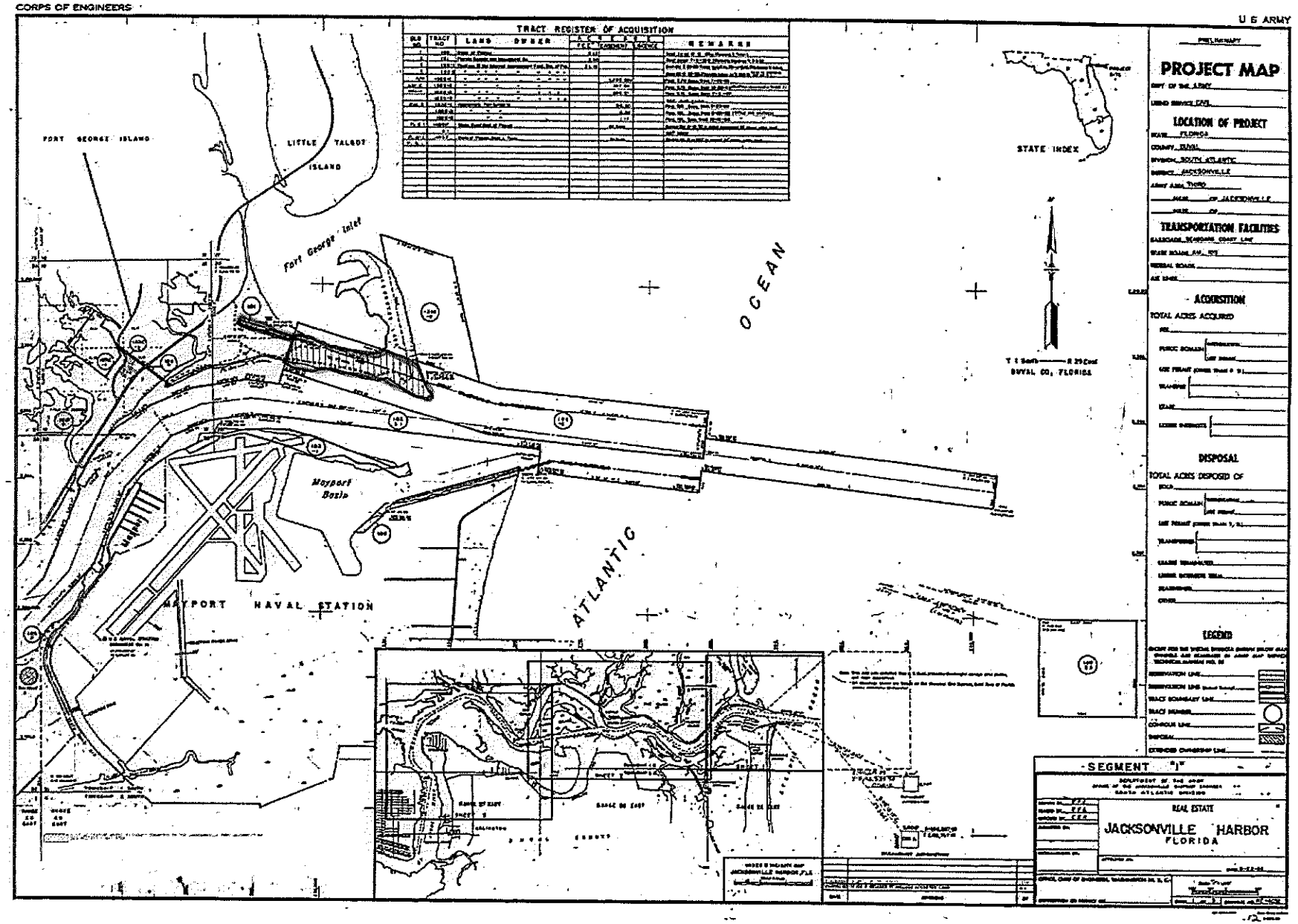
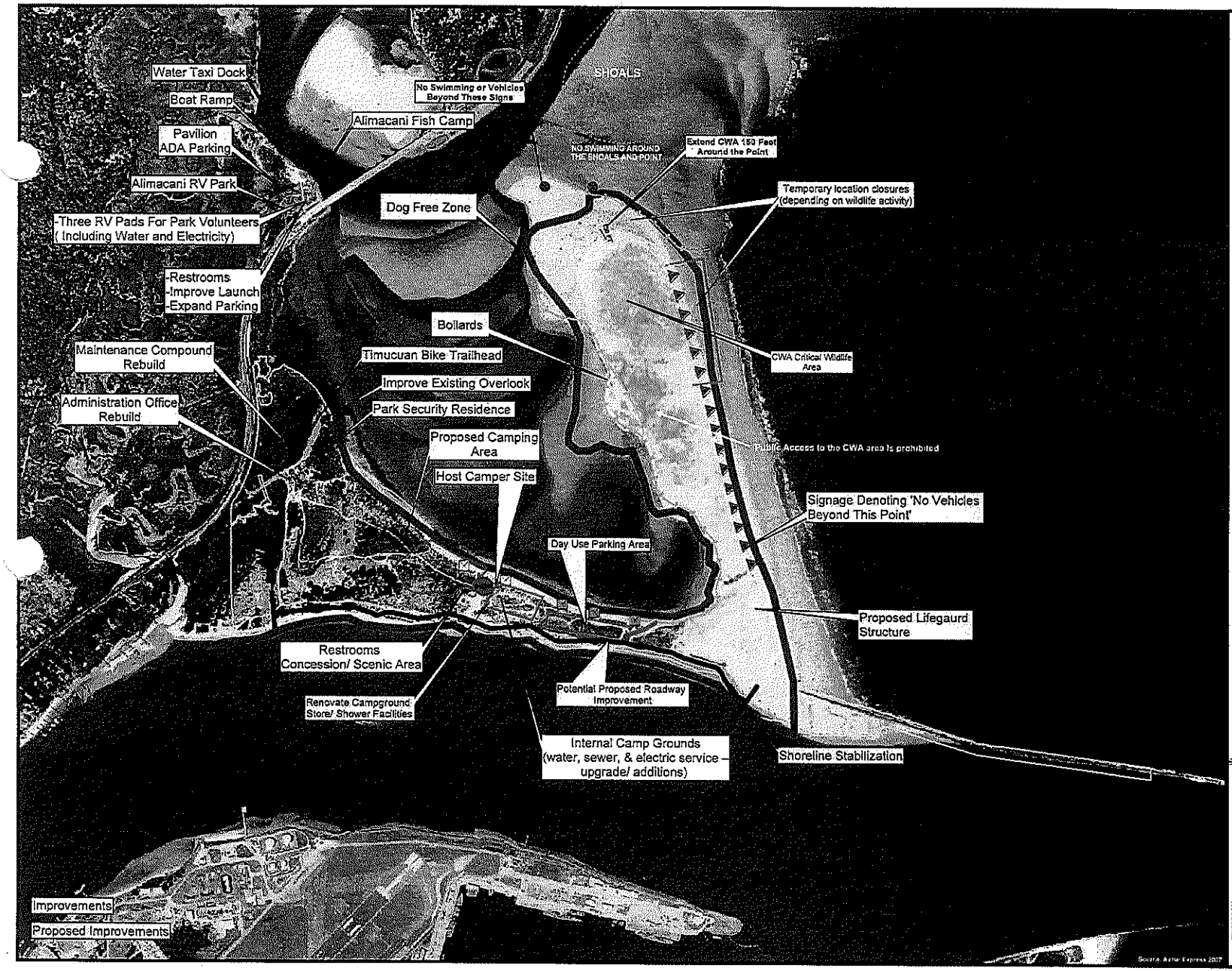

CORPS OF ENGINEERS
U S ARMY
TRACT REGISTER OF ACQUISITION
PRELIMINARY
PROJECT MAP
LOCATION OF PROJECT
TRANSPORTATION FACILITIES
ACQUISITION
DISPOSAL
LEGEND
STATE INDEX
FORT GEORGE ISLAND
LITTLE TALBOT ISLAND
Fort George Inlet
OCEAN
ATLANTIC
Mayport Basin
MAYPORT NAVAL STATION
T 1 South — R 29 East
DUVAL CO., FLORIDA
SEGMENT "J"
REAL ESTATE
JACKSONVILLE HARBOR
FLORIDA

Exhibit A 1

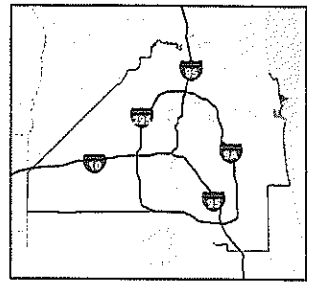
Exhibit B

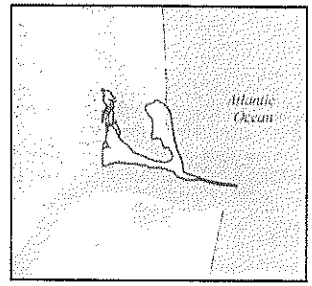



# Development Plan

## Huguenot Memorial Park

Conceptual Master Plan






"No Vehicles Beyond This Point" Signage Line
Dog Free Zone
Critical Wildlife Area
Huguenot Memorial
"No Swimming or Vehicles Beyond This Point" Sign
Site Location
Existing Picnic Pavilions
Future Additional Picnic Pavilions
Fish Cleaning Station
Proposed And Future
Bollards

N
W E
S

City of Jacksonville
Duval County, Florida

Date: September 24, 2009

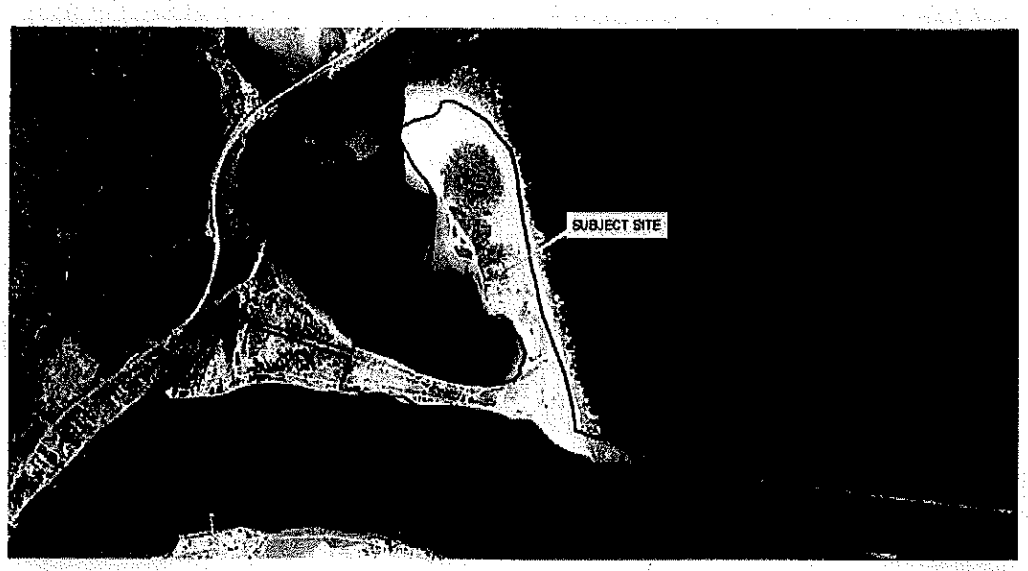
0 500 1,000 2,000
Feet

1 inch = 1,000 feet

England-Thims & Miller, Inc.

# ENVIRONMENTAL BASELINE SURVEY

## HUGUENOT MEMORIAL PARK
## Jacksonville, Duval County, Florida
### H&A Job No. 2009001




**Submitted to:**

U.S. Army Corps of Engineers
Jacksonville District
P.O. Box 4970
Jacksonville, Florida 32232-0019

**Prepared for:**

City of Jacksonville
Recreation and Community Services Dept.
851 Market Street
Jacksonville, Florida 32202

**Prepared by:**

Heilman & Associates, Inc.
320 N. First Street, Suite 608
Jacksonville Bch., FL 32250
Ph. 904-270-2212

February 25, 2009

Exhibit C

# 1.0 INTRODUCTION

Heilman & Associates, Inc. (H&A) was authorized by the City of Jacksonville's Recreation and Community Services Department to conduct an Environmental Baseline Survey (EBS) of the federally owned portion of the Huguenot Memorial Park located in Jacksonville, Duval County, Florida, east of Interstate 95 and State Road 9A, off of Heckscher Drive (hereinafter referred to as "subject site"). Specifically, the subject site is 206 acres± and surrounded by the St. Johns River, Ft. George Inlet, and Atlantic Ocean; the approximate center of the subject site is at Lat. 30°24'25.53"N and Long. 81°24'15.09"W (Figure 1).

In support of the EBS, a visual inspection of the subject site was conducted on February 18, 2009 by Mr. Ross Heilman of H&A. The purpose of the inspection was to visually obtain information indicating the likelihood of recognized environmental conditions in connection with the subject site and adjacent properties.

## *1.1 Purpose of EBS*

An EBS is a survey of Federal real property based on all existing environmental information readily available to the authors concerning the storage, release, treatment, or disposal of hazardous substances or petroleum products or derivatives on a property to determine or discover the obviousness of the presence or likely presence of a release or threatened release of any hazardous substances or petroleum product. The purpose of an EBS is to determine the environmental conditions and liabilities associated with the subject site.

## *1.2 Scope of Services*

This EBS was performed in accordance with the American Society for Testing and Materials (ASTM) Designation D 6008 - 96 (2005) (ASTM, 2005). The scope outlined in this standard practice involves several activities:

- A site visit that includes a visual inspection of the condition of the subject site and adjacent areas;
- Review of Federal and State databases on releases of hazardous substances and various other environmental data concerning the subject site and adjacent areas;
- Review of property tax files or similar resources documenting the past uses of the subject site;

- Review of historic aerial photographs to aid in documenting past uses of the subject site;
- Review of reports documenting environmental conditions of the subject site;
- Interviews with persons knowledgeable about the activities carried out at the subject site;
- Identification of on-going response actions that have been taken at or adjacent to the subject site; and
- Identification of sources of contamination at the subject site, or at adjacent areas which could migrate to the subject site.

Although this EBS was designed to eliminate the uncertainty regarding the potential for recognized environmental conditions to the minimum practicable level, it does not eliminate the uncertainty altogether.

## *1.3 Assumptions and Limitations*

This EBS was prepared to permit formulation of an opinion of the environmental condition of the subject site. Opinions on the environmental conditions at the subject site are based on information from the visual reconnaissance, interviews, and collection and review of readily available information. New information or changes in subject site use could require a review and possible modification of the findings and conclusions contained in this report.

The information obtained from individuals interviewed was considered to be accurate unless reasonable inquiries indicated otherwise. Conditions observed were considered representative of similar areas that were not accessible unless otherwise indicated.

This EBS presents a summary of readily available information on the environmental conditions of, and concerns relative to, the land, facilities, and real property assets at the subject site. Its findings are based on a record search of readily available documents, a thorough review of the applicable and relevant documents, a visual site reconnaissance conducted on February 18, 2009 and interviews with personnel knowledgeable about the subject site and its history.

All subject site buildings were visually inspected during the site reconnaissance. However, a 100% visual reconnaissance of each building (e.g., attics, crawl spaces, etc.) was not practical due to accessibility restrictions. No sampling or analysis of any media was conducted during this EBS.

# 2.0 SUBJECT SITE DESCRIPTION

## *2.1 Location and Legal Description*

The subject site is 206 acres± and surrounded by the St. Johns River, Ft. George Inlet, and Atlantic Ocean. The approximate center is located at Lat. 30°24'25.53"N and Long. 81°24'15.09"W (Figure 1).

The subject site is described as the following real estate numbers as recorded at the Duval County Property Appraiser's Office in Jacksonville, Florida: 168212-0000 and 168211-0000.

## *2.2 Site and Vicinity General Characteristics*

The subject site consists of approximately 206 acres of federally owned lands leased to the City of Jacksonville (COJ) by the U.S. Department of the Army. The subject site is considered an island spit, which is situated to the south of the Ft. George River Inlet, west of the Atlantic Ocean and north of the St. Johns River Inlet.

The subject site consists of the easternmost portion of Huguenot Memorial Park. The remaining 140 acres± of the park are owned by the State of Florida. The subject site is a part of the Nassau River-St. Johns River Marshes Aquatic Preserve and the Timucuan Ecological and Historic Preserve, a unit of the National Park Service (NPS). On-site surface waters and areas below mean high water are considered an Outstanding Florida Water by the State of Florida.

The preservation of the subject site has prevented the construction of excessive permanent/impervious structures and allowed for natural coastal communities to remain. The topography on site is primarily beach dune/coastal shoreline systems to the west, sloping down to lower flat elevations to the east to the Atlantic Ocean. On-site areas are primarily natural coastal communities under preservation associated with the NPS. To the south of the subject site is the U.S. Naval Base Mayport and low density waterfront residential development.

## 2.3 Current Use of the Subject Site

The subject site is currently operated exclusively by COJ as a recreational park for camping, fishing, and boating.

## 2.4 Descriptions of Structures, Roads, Other Improvements on the Site

On-site facilities and infrastructure are primarily related to the operation of the recreational park. One main asphalt road is located on site to facilitate occasional heavy vehicular traffic and provides access to campground areas and beachfront.

The campground facilities include pavilion structures and associated concrete pads, and barbeque pits. Associated with the pavilion areas are various camp sites. Various trash receptacles are located on the site including five large refuse dumpsters.

Three enclosed structures are located on the western portion of the subject site and consist of two restrooms, restaurant ("Sharkys"), and concession stand connected to the westernmost restroom. The concession stand is also associated with "Sharkys." These structures have electrical heating/cooling systems. Propane is used for cooking within the concession stand, with two approximately 30-gal tanks observed in this area.

Sewage disposal consists of a large septic system with associated drainage field. This system treats all on-site sewage, including recreational vehicles (RVs). RVs connect to a "dump station" that is connected to the septic system.

Potable water comes from an on-site well located adjacent to the enclosed structures. This system consists of a well, pump, chlorine treatment, and storage. After treatment, the potable water is stored in a large, approximately 500-gal above ground storage tank. This water is then piped to on-site facilities.

The largest structure on site is the north jetty associated with the St. Johns River Inlet. This structure is in the southernmost portion of the subject site and extends eastward into the Atlantic Ocean. Open water areas on site can include various numbers of motorized watercraft.

### *2.5 Current Uses of Adjoining Properties*

The sole adjoining property is owned by the State of Florida, and managed and operated by COJ as a recreational park. Surface waters surround the remaining areas of the subject site.

## 3.0 SITE HISTORY

The subject site was formally known as "Jacksonville Harbor" and renamed "Huguenot Memorial Park" for Jean Ribault, a French Huguenot Captain (ETM, 2008). The subject site and the adjoining state-owned lands have been utilized for several years by the public for fishing, swimming, camping, and other recreational activities. The COJ-operated recreational park was established in 1979.

### *3.1 History of Ownership*

The subject site is described as the following real estate numbers as recorded at the Duval County Property Appraiser's Office in Jacksonville, Florida: 168212-0000 and 168211-0000. However, for the purposes of this EBS, the ownership history will be relegated to the 168212-0000 denoted parcel. Further, ETM (2008) noted that the federal land associated with the subject site consists of approximately 206 acres and is leased under agreement DACW 17-1-80-2 (Appendix B). The federal lease document contains an exhibit that specifically shows the limits of areas assessed for this EBS.

The subject site was originally leased from the U.S. Department of the Army on June 1, 1980. This lease expired in 2005, but was extended until December 31, 2009. In regards to ownership, the U.S. Department of the Army has owned the subject site since January 1, 1899.

### *3.2 Past Uses of the Subject Site*

According to the researched sources, the subject site has always been used for passive recreational purposes. No other uses of the subject site were disclosed during this EBS.

A review of historic aerial photographs of the subject site was conducted. The photographs were dated 1942, 1952, 1970, 1984, 1995, 2000, 2004, and 2008. The photographs dated 1942 to 1984 showed no development or structures, with the exception of the north jetty structure. The 1995 photographs showed some minor structures. All exhibited primitive roads throughout the subject site. The later photographs (i.e., 2000 to 2008) showed many small structures associated with the recreational park, roads, and the jetty.

### *3.3 Past Use, Storage, Disposal, and Release of Hazardous Substances*

The subject site has been historically used for recreational purposes. No past use, storage, disposal, and release of hazardous substances were disclosed during this EBS.

## 4.0 ADJACENT PROPERTIES

Properties adjacent to the subject site consist of the State-owned portion of the recreational park and surface waters (i.e., Atlantic Ocean, St. Johns River, and Ft. George Inlet). U.S. Naval Base Mayport and low density waterfront residential development are located across the St. Johns River to the south of the subject site.

## 5.0 REVIEW OF REGULATORY INFORMATION

### *5.1 Federal Environmental Records*

An ASTM-compliant government records area search was obtained for this EBS (Appendix C). The following standard Federal database listings were searched if available: National Priority List (NPL); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); Resource Conservation and Recovery Act Treatment, Storage, and Disposal (RCRA TSD) facilities list; RCRA Generators; and Emergency Response Notification System (ERNS). Table 1 shows the standard Federal database listings reviewed for this EBS.

**Table 1. Results of Federal databases reviewed for this EBS.**

| Federal Database List | Subject Site Listing | Total Number of Listings for Area Search | Environmental Concern Posed to the Subject Site |
|---|---|---|---|
| NPL | 0 | 0 | No Concern |
| CERCLIS | 0 | 0 | No Concern |
| RCRA TSD | 0 | 0 | No Concern |
| RCRA GEN | 0 | 0 | No Concern |
| ERNS | 0 | 0 | No Concern |
| Unmapped Sites | 0 | 0 | No Concern |

No Federally listed sites were noted in the database reports.

## *5.2 State and Local Environmental Records*

An ASTM-compliant government records area database report was obtained for this EBS (Appendix C). The following State databases were searched if available: State lists of hazardous waste sites, Identified for investigation or remediation (NPL and CERCLIS equivalents); State landfill and/or solid waste disposal site lists; State leaking UST site lists; and State registered UST/AST site lists. Table 2 shows the standard State database listings reviewed for this EBS.

**Table 2. Results of State databases reviewed for this EBS.**

| State Database List | Subject Site Listing | Total Number of Listings for Area Search | Environmental Concern Posed to the Subject Site |
|---|---|---|---|
| State/Tribal Sites | 0 | 0 | No Concern |
| State/Tribal | 0 | 0 | No Concern |
| State/Tribal LUST | 0 | 0 | No Concern |
| State/Tribal UST/AST | 0 | 0 | No Concern |
| Unmapped Sites | 0 | 0 | No Concern |

No State listed sites were noted in the database reports.

# 6.0 SITE INVESTIGATION AND REVIEW OF HAZARDS

The findings documented in the following sections are based on the February 18, 2009 site reconnaissance, review of available site records, and information obtained from personnel associated with Huguenot Memorial Park.

## *6.1 Underground/Aboveground Storage Tanks (USTs/ASTs)*

One large AST is located on the subject site. This AST is approximately 500-gal and serves as storage for potable water.

Mr. Christopher Winterman, Park Manager of Huguenot Memorial Park, stated that an UST containing propane is located next to the concession area and will be removed and replaced with a new tank (Appendix D).

No other UST/AST concerns were noted during this EBS process.

## *6.2 Chemicals/Hazardous Substances*

A water treatment system for potable water includes a small chlorine tank. This system is located in a brick shed adjacent to the on-site restrooms and restaurant. According to Mr. Winterman, the system was recently inspected by the Florida Department of Environmental Protection (FDEP) and no concerns were noted. Mr. Winterman also stated he did not have any knowledge of any past use, storage, disposal, or release of any petroleum or hazardous substances on the subject site.

No other chemical/hazardous substance concerns were noted during this EBS process.

# 7.0 REVIEW OF SPECIAL RESOURCES

## *7.1 Land Use and Natural Communities*

Refer to Table 3 and Figure 2 for on-site land use/cover locations and descriptions. The on-site communities and land uses were classified according to the Florida Land Use, Cover and Forms Classification System (FDOT, 1999). Geographic Information System data were also reviewed prior to the site reconnaissance (SJRWMD, 2004).

**Table 3. Huguenot Memorial Park. On-site land use/land cover.**

| Land Use/Land Cover Description | LU/LC Code | Area (acres±) |
|---|---|---|
| Herbaceous | 310 | 87.24 |
| Shrub and Brushland | 320 | 3.64 |
| Streams and Waterways | 510 | 17.33 |
| Beaches | 710 | 65.88 |
| Sand Other than Beaches (Sand Dunes) | 720 | 29.91 |
| Exposed Rock (North Jetty) | 730 | 2.06 |
| | | |
| **Total Area** | | **206.06** |

Herbaceous

This land use/cover type consists of natural vegetated areas, but also consists of an area of the subject site that is utilized as a campground. Typical vegetation consists of sea oats (*Uniola paniculata*), groundsel tree (*Baccharis halimifolia*), sea oxeye (*Borrichia frutescens*), spanish bayonet (*Yucca aloifolia*), sea purslane (*Sesuvium portulacastrum*), salt grass (*Distichlis spicata*), prickly pear cactus (*Opuntic compressa*), saw palmetto (*Serenoa repens*), and sabal palm (*Sabal palmetto*). The more salt tolerant species, such as sea oats, sea oxeye, salt grass, and sea purslane are dominant on the eastern portion of this cover-type where the Atlantic Ocean is the main influence.

Shrub and Brushland

This area is located on the westernmost portion of the subject site. The topography is relatively high, with dominant vegetation such as wax myrtle (*Myrica cerifera*), wire grass (*Aristida stricta*), broomsedge (*Andropogon virginicus*), sabal palm, and saw palmetto.

Streams and Waterways

This on-site cover-type consists of areas contiguous with the St. Johns River and Atlantic Ocean.

Beaches

This area is mostly devoid of vegetation and is used for recreational activities such as swimming, fishing, and picnicking.

Sand Other than Beaches (Sand Dunes)

Relatively undisturbed dunes are located on the eastern portion of the subject site. They are protected from disturbances with ropes and signs that prohibit entry. The dominant vegetation consists of sea oats.

Exposed Rock (North Jetty)

A man-made granite jetty is located on the southeastern portion of the subject site.

## *7.2 Wetlands and Surface Waters*

As noted in the previous section, jurisdictional wetlands and surface waters are located on the subject site (Figure 2). These areas are regulated by the FDEP, St. Johns River Water Management District, and U.S. Army Corps of Engineers. Any impacts or encroachment in these areas will require authorization from the listed agencies. In regards to overall habitat quality, these areas are relatively undisturbed and can be considered high quality systems.

Additionally, the majority of on-site surface waters are designated by the State of Florida as an Aquatic Preserve and an Outstanding Florida Water (OFW). This designation affords further protection to these areas.

## *7.3 Natural Resources and Wildlife Habitat*

On-site natural communities are diverse and relatively undisturbed. These areas are ideal for both listed and non-listed fauna and flora. In fact, several species have been identified within the boundaries of the subject site (FFWCC, 2007; ETM, 2008). Due to these factors, COJ has implemented a protection and

management strategy to insure the long-term wellbeing of these areas. This strategy includes limiting or prohibiting public access; monitoring and maintenance, including control of exotic/invasive plant species and prescribed burns (ETM, 2008).

Special protection has been afforded to the northern portion of the subject site. This area has been designated as a Critical Wildlife Area (CWA) by the Florida Fish and Wildlife Conservation Commission (FFWCC). Public access to this area is prohibited.

Areas surrounding the subject site also have significant value to on-site natural resources and wildlife. The St. Johns River, Ft. George Inlet, and Atlantic Ocean surround the subject site; and the subject site is located within the Nassau River-St. Johns River Marshes Aquatic Preserve, an OFW. In addition, the subject site is part of the Timucuan Ecological and Historic Preserve, a part of the National Park Service.

### *7.4 Cultural Resources*

The Florida Master Site File documented thirty-two historic and/or archaeological sites located within the general area of the subject site (ETM, 2008). However, only one recorded site is located on the subject site, DU14055. According to the Florida Department of State Division of Historical Resources, this site is located at the current jetty on the southwestern portion of the subject site. It is a granite jetty and was part of the original seawall constructed in approximately 1880, and is now built into the current jetty structure.

## 8.0 SUMMARY AND CONCLUSIONS

Heilman & Associates, Inc. (H&A) was authorized by the City of Jacksonville's Recreation and Community Services Department to conduct an Environmental Baseline Survey (EBS) of the subject site, which is a portion of the Huguenot Memorial Park, located in Jacksonville, Duval County, Florida. This EBS was conducted in accordance with guidelines and practices outlined in ASTM (2005).

The findings of this EBS report were based on readily available environmental information; interviews with site personnel; previous studies and reports; and Federal and State environmental database and file information related to the storage, release, treatment or disposal of hazardous substances or petroleum

products. The findings were also based on visual observations during the site inspection. The following paragraphs present the findings related to areas of potential concerns that were evaluated during the EBS process.

Chemicals/Hazardous Substances

A water treatment system for potable water includes a small chlorine tank. According to site personnel, the system was recently inspected by the FDEP and no concerns were noted.

Land Use and Natural Communities

The subject site contains several natural areas, which were classified according to FDOT (1999), including Herbaceous, Shrub and Brushland, Streams and Waterways, Beaches, Sand Other than Beaches (Sand Dunes). Several of these cover-types are under management and/or protection.

Wetlands and Surface Waters

Jurisdictional wetlands and surface waters are located on the subject site. Any impacts or encroachment in these areas will require authorization from the listed agencies. The majority of on-site surface waters are designated as an Aquatic Preserve and OFW. This designation affords further protection to these areas.

Natural Resources and Wildlife Habitat

These on-site areas offer quality habitat to a large array of both listed and non-listed fauna and flora. The long-term protection is assured with a management plan and Federal and State protection afforded listed species and their habitat. Additionally, FFWCC has designated the northern portion of the subject site a CWA and public access to this area is prohibited.

The subject site is located within the Nassau River-St. Johns River Marshes Aquatic Preserve, and is part of the Timucuan Ecological and Historic Preserve, a part of the National Park Service.

Cultural Resources

One historic site is document on the subject site, DU14055. The site is a granite jetty, which was part of the original seawall and is now built into the current jetty structure.

## *8.1 Environmental Condition of Property*

In accordance with ASTM Designation D 6008 - 96 (2005) and ASTM Designation D 5746-98 (2002), the subject site has been classified as Type 1. Type 1 designates that the subject site is an area or parcel of real property where no release or disposal of hazardous substances or petroleum products or their derivatives has occurred, including no migration of these substances from adjacent properties.

# 9.0 REFERENCES

American Society for Testing and Materials (ASTM). 2005. Standard Practice for Conducting Environmental Baseline Surveys Designation D: 6008 - 96 (Reapproved 2005). ASTM, West Conshohocken, Pennsylvania.

England-Thims & Miller (ETM). 2008. Management Plan Huguenot Memorial Park Duval County. ETM, Jacksonville, Florida.

Florida Department of Transportation (FDOT). 1999. Florida Land Use, Cover and Forms Classification System. FDOT, Tallahassee, Florida.

Florida Fish and Wildlife Conservation Commission (FFWCC). 2007. FFWCC Wildlife Observations 2002. FFWCC, Tallahassee, Florida.

St. Johns River Water Management District (SJRWMD). 2004. SJRWMD Land Use and Land Cover. SJRWMD, Information Resources Department, Palatka, Florida.

# Appendix C. Public Hearing Notice & Summary of Public and Advisory Group Feedback

# Appendix D. Soil Descriptions

## Appendix D. Soil Descriptions

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

*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.

*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.

*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.

*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.

*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.

*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.

# Appendix E. Plant and Animal Species List

**Appendix E: Plant and Animal Species List**

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

| **Amphibians** | |
|---|---|
| Eastern Narrowmouth Toad | *Gastrophryne carolinensis* |
| Eastern Spadefoot Toad | *Scaphiopus holbrookii* |
| Green Treefrog | *Hyla cinerea* |
| Southern Chorus Frog | *Pseudacris nigrita* |
| Southern Cricket Frog | *Acris gryllus* |
| Southern Leopard Frog | *Rana sphenocephala* |
| Southern Spring Peeper | *Hyla crucifer bartramiana* |
| Southern Toad | *Bufo terrestris* |
| Squirrel Treefrog | *Hyla Squirella* |

| **Reptiles** | |
|---|---|
| Atlantic Loggerhead Turtle American | *Caretta caretta caretta* |
| Alligator | *Alligator mississippiensis* |
| Broad-headed Skink | *Eumeces laticeps* |
| Corn Snake | *Elaphe quttata quttata* |
| Cuban Brown Anole | *Anolis 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* |
| Garter Snake | *Thamnophis sirtalis* |
| Gopher Tortoise | *Gopherus polyphemus* |
| Green Anole | *Anolis carolinensis* |
| Green Turtle | *Chelonia mydas* |
| Ground Skink | *Scincella lateralis* |
| Leatherback Turtle | *Dermochelys coriacea* |
| Peninsula Ribbon Snake | *Thamnophis sauritus sackeni* |
| Rough Green Snake | *Opheochrys aestivus* |
| Six-lined Racerunner | *Cnemidophorus sexlineatus* |
| Southeastern Five-lined Skink | *Eumeces inexpectatus* |
| Southern Black Racer | *Coluber constrictor Priapus* |
| Striped Mud Turtle | *Kinosternon baurii* |
| Yellow Rat Snake | *Elaphe obsoleta quadrivittata* |

| **Mammals** | |
|---|---|
| Bobcat | *Lynx rufus* |
| Cotton Mouse | *Peromyscus gossypinus* |
| Eastern Cottontail | *Sylvilagus floridanus* |
| Eastern Mole | *Scalopus aquaticus* |
| Gray Squirrel | *Sciurus carolinensis* |
| Hispid Cotton Rat | *Sigmodon hispidus* |
| Marsh Rabbit | *Sylvilagus palustris* |
| Nine-banded Armadillo | *Dasypus novemcinctus* |
| Raccoon | *Procyon lotor* |
| River Otter | *Lutra Canadensis* |
| Virginia Opossum | *Didelphis virginiana* |
| West Indian Manatee | *Trichechus manatus latirostris* |

| **Birds** | |
|---|---|
| American Avocet | *Recurvirostra americana* |
| American Golden-plover | *Pluvialis dominica* |
| American Goldfinch | *Carduelis tristis* |
| American Kestrel | *Falco sparverius* |
| American Oystercatcher | *Haematopus palliatus* |
| American Pipit | *Anthus rubescens* |
| American Redstart | *Setophaga ruticilla* |
| American Robin | *Turdus migratorius* |
| American White Pelican | *Pelecanus erythrorhynchos* |
| American Wigeon | *Anas americana* |

| | |
|---|---|
| Anhinga | *Anhinga Anhinga anhinga* |
| Baird's Sandpiper | *Calidris bairdii* |
| Black-And-White Warbler | *Mniotilta varia* |
| Bald Eagle | *Haliaeetus leucocephalus* |
| Barn Swallow | *Hirundo rustica* |
| Bar-Tailed Godwit | *Limosa lapponica* |
| Belted Kingfisher | *Ceryle alcyon* |
| Crowned Night-Heron | *Nycticorax nycticorax* |
| Black Skimmer | *Rynchops niger* |
| Black Tern | *Chlidonias niger* |
| Black Vulture | *Coragyps atratus* |
| Black-Bellied Plover | *Pluvialis squatarola* |
| Black-Legged Kittiwake | *Rissa tridactyla* |
| Black-Throated Blue Warbler | *Dendroica caerulescens* |
| Black-Throated Green Warbler | *Dendroica virens* |
| Blue Jay | *Cyanocitta cristata* |
| Blue-Headed Vireo | *Vireo solitarius* |
| Blue-Winged Teal | *Anas discors* |
| Blue-Winged Warbler | *Vermivora pinus* |
| Boat-Tailed Grackle | *Quiscalus major* |
| Bonaparte's Gull | *Larus philadelphia* |
| Bridled Tern | *Sterna anaethetus* |
| Brown Pelican | *Pelecanus occidentalis* |
| Brown Thrasher | *Toxostoma rufum* |
| Buff-Breasted Sandpiper | *Tryngites subruficollis* |
| Bufflehead | *Bucephala albeola* |
| Burrowing Owl | *Athene cunicularia* |
| Cape May Warbler | *Dendroica tigrina* |
| Carolina Wren | *Thryothorus ludovivianus* |
| Carolina Chickadee | *Poecile carolinensis* |
| Caspian Tern | *Sterna caspia* |
| Cattle Egret | *Bubulcus ibis* |
| Cedar Waxwing | *Bombycilla cedorum* |
| Chestnut-Sided Warbler | *Dendroica pensylvanica* |
| Chimney Swift | *Chaetura pelagica* |
| Clapper Rail | *Rallus longirostris* |
| Common Eider | *Somateria mollissima* |
| Common Grackle | *Quiscalus quiscula* |
| Common Ground-Dove | *Columbina passerina* |
| Common Loon | *Gavia immer* |
| Common Merganser | *Mergus merganser* |
| Common Tern | *Sterna hirundo* |
| Common Yellowthroat | *Geothlypis trichas* |
| Cooper's Hawk | *Accipiter cooperii* |
| Double-Crested Cormorant | *Phalacrocorax carbo* |
| Downy Woodpecker | *Picoides pubescens* |

| | |
|---|---|
| Dunlin | *Calidris alpine* |
| Eastern Kingbird | *Tyrannus tyrannus* |
| Eastern Meadowlark | *Sturnella magna* |
| Eastern Phoebe | *Sayornis phoebe* |
| Eastern Towhee | *Pipilo erythrophthalmus* |
| European Starling | *Sturnus vulgaris* |
| Fish Crow | *Corvus ossifragus* |
| Forester's Tern | *Sterna fosteri* |
| Glaucous Gull | *Larus hyperborues* |
| Glossy Ibis | *Plegadis falcinellus* |
| Gray Catbird | *Dumetella carolinensis* |
| Gray Kingbird | *Tyrannus dominicensis* |
| Great Black-Backed Gull | *Larus marinus* |
| Great Blue Heron | *Ardea Herodias* |
| Great Cormorant | *Phalacrocorax carbo* |
| Great Crested Flycatcher | *Myiarchus crinitus* |
| Great Egret | *Ardea alba* |
| Great Horned Owl | *Bubo virginianus* |
| Greater Scaup | *Aythya marila* |
| Greater Yellowlegs | *Tringa melanoleuca* |
| Green Heron | *Butorides virescens* |
| Green-Winged Teal | *Anas crecca* |
| Gull-Billed Tern | *Sterna nilotica* |
| Harlequin Duck | *Histrionicus histrionicus* |
| Herring Gull | *Larus argentatus* |
| Hooded Merganser | *Lophodytes cucullatus* |
| Hooded Warbler | *Wilsonia citrina* |
| Horned Grebe | *Podiceps grisegena* |
| Horned Lark | *Eremophila alpestris* |
| House Wren | *Troglodytes aedon* |
| Iceland Gull | *Larus glaucoides* |
| Killdeer | *Charadrius vociferus* |
| Lapland Longspur | *Calcarius lapponicus* |
| Lark Sparrow | *Chondestes grammacus* |
| Laughing Gull | *Larus atricilla* |
| Least Sandpiper | *Calidris minutilla* |
| Least Tern | *Sterna antillarum* |
| Lesser Black-Backed Gull | *Larus fuscus* |
| Lesser Scaup | *Aythya affins* |
| Lesser Yellowlegs | *Tringa flavipes* |
| Loggerhead Shrike | *Lanius ludovicianus* |
| Long-Billed Curlew | *Numenius americanus* |
| Magnificent Frigatebird | *Fregata magnificens* |
| Magnolia Warbler | *Dendroica magnolia* |
| Mallard | *Anas platyrhynchos* |
| Marbled Godwit | *Limosa fedoa* |

| | |
|---|---|
| Marsh Wren | *Cistothorus palustris* |
| Merlin | *Falco columbarius* |
| Mockingbird | *Mimus polyglottos* |
| Mourning Dove | *Zenaida macroura* |
| Nelson's Sharp-Tailed Sparrow | *Ammodramus nelsoni* |
| Northern Flicker | *Colartes auratus* |
| Northern Cardinal | *Cardinalis cardinalis* |
| Northern Gannet | *Morus bassanus* |
| Northern Harrier | *Circus cyaneus* |
| Northern Parula | *Parula americana* |
| Northern Waterthrush | *Seiurus noveboracensis* |
| Orange-Crowned Warbler | *Vermivora celata* |
| Osprey | *Pandion haliaetus* |
| Pacific Loon | *Gavia pacifica* |
| Painted Bunting | *Passerina ciris* |
| Palm Warbler | *Dendroica palmarum* |
| Parasitic Jaeger | *Stercorarius parasiticus* |
| Pectoral Sandpiper | *Calidris melanotos* |
| Peregrine Falcon | *Falco peregrinus* |
| Pied-Billed Grebe | *Podilymbus podiceps* |
| Piping Plover | *Charadrius melodus* |
| Pomarine Jaeger | *Stercorarius pomarinus* |
| Prairie Warbler | *Dendroica discolor* |
| Prothonotary Warbler | *Protonotaria citrea* |
| Purple Martin | *Progne subis* |
| Purple Sandpiper | *Calidris maritima* |
| Red Knot | *Calidris canutus* |
| Red-Bellied Woodpecker | *Melanerpes carolinus* |
| Reddish Egret | *Egretta rufescens* |
| Red-Eyed Vireo | *Vireo olivaceus* |
| Red-Tailed Hawk | *Buteo jamaicensis* |
| Red-Throated Loon | *Gavia stellata* |
| Red-Winged Blackbird | *Agelaius phoeniceus* |
| Ring-Billed Gull | *Larus delawarensis* |
| Ring-Necked Duck | *Aythya collaris* |
| Rock Dove | *Columba livia* |
| Roseate Spoonbill | *Ajaia ajaja* |
| Royal Tern | *Sterna maxima* |
| Ruby-Crowned Kinglet | *Regulus calendula* |
| Ruddy Turnstone | *Arenaria interpres* |
| Sabine's Gull | *Xema sabini* |
| Saltmarsh Sharp-Tailed Sparrow | *Ammodramus caudacutus* |
| Sanderling | *Calidris alba* |
| Sandwich Tern | *Sterna sandvicensis* |
| Savannah Sparrow | *Passerculus sandwichensis* |
| Semipalmated Plover | *Charadrius semipalmatus* |
| Semipalmated Sandpiper | |

| | |
|---|---|
| Sharp-Shinned Hawk | *Calidris pusilla* |
| Short-Billed Dowitcher | *Accipiter striatus* |
| Short-Eared Owl | *Limnodromus griseus* |
| Snow Bunting | *Asio flammeus* |
| Snow Goose | *Plectrophenax nivalis* |
| Snowy Egret | *Chen caerulescens* |
| Song Sparrow | *Egretta thula* |
| Sooty Tern | *Melospiza melodia* |
| Sora | *Sterna fuscata* |
| Stilt Sandpiper | *Porzana carolina* |
| Swamp Sparrow | *Caldris himantopus* |
| Tree Swallow | *Melospiza georgiana* |
| Tricolored Heron | *Tachycineta bicolor* |
| Tufted Titmouse | *Egretta tricolor* |
| Turkey Vulture | *Baeolophus bicolor* |
| Vesper Sparrow | *Cathartes aura* |
| Virginia Rail | *Pooecetes gramineus* |
| Western Sandpiper | *Rallus limicola* |
| Whimbrel | *Calidris mauri* |
| White Ibis | *Numenium phaeopus* |
| White-Crowned Sparrow | *Eudocimus albus* |
| White-Eyed Vireo | *Zonotrichia leucophyrs* |
| White-Throated Sparrow | *Vireo griseus* |
| Willet | *Zonotrichia albicollis* |
| Wilson's Plover | *Catoptrophorus semipalmatus* |
| Wood Stork | *Charadrius wilsonia* |
| Yellow Warbler | *Mycteria americana* |
| Yellow-Bellied Sapsucker | *Dendroica petechia* |
| Yellow-Billed Cuckoo | *Sphyrapicus varius* |
| Yellow-Rumped Warbler | *Coccyzus americanus* |
| | *Dendroica coronata* |
| See Exhibit U for a complete summary of the shorebirds that regularly use Huguenot. | |

| **Plants** | |
|---|---|
| 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 | *Croton punctatus* |
| Beard Grass | *Andropogon gyrans* |
| Bear's Foot | *Polymnia uvedalia* |
| Beautyberry | *Callicarpa americana* |
| Beggar-Lice | *Desmodium glabellum* |
| Bermuda Grass | *Cynodon dactylon* * |
| Black Cherry | *Prunus serotina* |
| Black Highbush Blueberry | *Vaccinium fuscatum* |
| Black Medic | *Medicago lupulina* * |
| Black Nightshade | *Solanum nigrescens* * |
| Blanket Flower | *Gaillardia pulchella* |
| Blueberry | *Vaccinium corymbosum* |
| Blueberry | *Vaccinium myrsinites* |
| Blueheart | *Buchnera americana* |
| Bog Hemp | *Boehmeria cylindrica* |
| Bog Rush | *Juncus elliottii* |
| Bracken Fern | *Pteridium aquilinum* |
| Brazil Vervain | *Verbena brasiliensis* * |
| Brazilian Pusley | *Richardia brasiliensis* * |
| Broad-Leaf Pink Purslane | *Portulaca amilis* * |
| Broomsedge | *Andropogon virginicus var. glauca* |
| Broomsedge | *Andropogon virginicus var. virginicus* |
| Buckthorn | *Rhamnus caroliniana* |
| Bushy Beard Grass | *Andropogon glomeratus* |
| Butterfly-Pea | *Centrosema virginianum* |
| Butterfly-Pea | *Clitoria mariana* |
| Buttonweed | *Dioda virginiana* |
| Cabbage Palm | *Sabal palmetto* |
| Caesar-Weed | *Urena lobata* |
| Cakile | *Cakile edentula* |
| Camphor Weed | *Heterotheca subaxillaris* |
| Carolina Holly | *Ilex ambigua* |
| Carolina Laurel Cherry | *Prunus caroliniana* |
| Carolina Willow | *Salix caroliniana* |
| Catbrier | *Smilax bona-nox* |
| Chaffweed | *Anagallis minima* |
| Chapman's Oak | *Quercus chapmanii* |
| Cherokee Bean | *Erythrina herbacea* |
| Christmasberry | *Lycium carolinianum* |
| Cinnamon Fern | *Osmunda cinnamomea* |

| | |
|---|---|
| Climbing Aster | *Aster carolinianus* |
| Climbing False Buckwheat | *Persicaria convolvulus* * |
| Climbing Hempweed | *Mikania scandens* |
| Clustered Diamond Flower | *Hedyotis uniflora* |
| Coastal Cockspur | *Echinochloa walteri* |
| Coastal Cynanchum | *Cynanchum angustifolium* |
| Coastal Plain Pennywort | *Hydrocotyle bonariensis* |
| Coastal Plain Seedbox | *Ludwigia maritima* |
| Coinwort | *Centella asiatica* |
| Common Cattail | *Typha latifolia* |
| Common Ragweed | *Ambrosia artemisiifolia* |
| Common Sixweeks Grass | *Vulpia octoflora* |
| Common Sow Thistle | *Sonchus oleraceus* * |
| Common Vetch | *Vicia sativa* * |
| Coontie | *Zamia pumila* |
| Coral Honeysuckle | *Lonicera sempervirens* *Froelichia* |
| Cottonweed | *floridana* |
| Cranesbill | *Geranium carolinianum* |
| Creeping Cucumber | *Melothria pendula* |
| Creeping Indigo | *Indigofera spicata* * |
| Cross-Vine | *Bignonia capreolata* |
| Crotalaria | *Crotalaria pumila* |
| Crowfootgrass | *Dactyloctenium aegyptium* * |
| Cudweed | *Gnaphalium pensilvanicum* |
| Cut-Leaved Evening Primrose | *Oenothera laciniata* |
| Cylindric Sedge | *Cyperus retrorsus* |
| Dahoon Holly | *Ilex cassine* |
| Day-Flower | *Commelina erecta* |
| Deerberry | *Vaccinium stamineum* |
| Devil-Joint | *Opuntia pusilla* |
| Devil's Walking Stick | *Aralia spinosa* |
| Dewberry | *Rubus trivialis* |
| Dodder Vine | *Cuscuta indecora* |
| Dog Fennel | *Eupatorium capillifolium* |
| Dogwood | *Cornus foemina* |
| Downy Milk-Pea | *Galactica volubilis* |
| Duckweed | *Lemna obscura* |
| Duckweed | *Lemna valdiviana* |
| Dune Elder | *Iva imbricata* |
| Dwarf Dandelion | *Krigia virginica* |
| Dye Bedstraw | *Galium tinctorium* |
| Eastern Red Cedar | *Juniperus virginiana* |
| Ebony Spleenwort | *Asplenium platyneuron* |
| Elderberry | *Sambucus canadensis* |
| English Ryegrass | *Lolium perenne* * |
| Fairy Footprints | *Hedyotis procumbens* |

| | |
|---|---|
| False Dandelion | *Pyrrhopappus carolinianus* |
| False Foxglove | *Agalinis fasciculata* |
| False Nut Sedge | *Cyperus strigosus* |
| Finger Grass | *Eustachys petraea* |
| Fireweed | *Erechtites hieracifolia* |
| Flat Sedge | *Cyperus odoratus* |
| Florida Violet | *Viola affinis* |
| Florida Yellow Wood-Sorrel | *Oxalis florida* |
| Forestiera | *Forestiera ligustrina* |
| Fringed Panicum | *Panicum ciliatum* |
| Fringerush | *Fimbristylis caroliniana* |
| Fringerush | *Fimbristylis castanea* |
| Frog Fruit | *Lippia nodiflora* |
| Frost-Weed | *Verbesina virginica* |
| Gaylussacia | *Gaylussacia tomentosa* |
| Giant Bristlegrass | *Setaria magna* |
| Giant Reed | *Arundo donax* |
| Glades Morning-Glory | *Ipomoea sagittata* |
| Globe Sedge | *Cyperus globulosus* |
| Golden Polypody | *Phlebodium aureum* |
| Goose Grass | *Eleusine indica* * |
| Gopher Apple | *Licania michauxii* |
| Grass-Leaved Ladies' Tresses | *Spiranthes praecox* |
| Green Dragon | *Arisaema dracontium* |
| Green-Fly Orchid | *Epidendrum conopseum* |
| Ground-Cherry | *Physalis walteri* |
| Groundsel Tree | *Baccharis halimifolia* |
| Hackberry | *Celtis laevigata* |
| Hair Sedge | *Bulbostylis ciliatifolia* |
| Hairgrass | *Muhlenbergia capillaris* |
| Hairy Beach Sunflower | *Helianthus debilis* |
| Hairy Bluestem | *Andropogon longiberbis* |
| Hairy Indigo | *Indigofera hirsuta* * |
| Harsh Verbena | *Verbena scabra* |
| Heart-Leaf St. John's Wort | *Hypericum tetrapetalum* |
| Hercules-Club | *Zanthoxylum clava-herculis* |
| Highbush Blackberry | *Rubus argutus* |
| Hog Plum | *Prunus umbellata* |
| Hogbrier | *Smilax tamnoides* |
| Hop-Hornbeam | *Ostrya virginiana* |
| Horse Mint | *Monarda punctata* |
| Horseweed | *Conyza canadensis* |
| Huckleberry | *Gaylussacia dumosa* |
| Indian Clover | *Melilotus indica* |
| Iresine | *Iresine diffusa* |
| Knotroot Foxtail | *Setaria geniculata* |

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|---|---|
| Lantana | *Lantana depressa* |
| Large-Headed Rush | *Juncus megacephalus* |
| Laurel Oak | *Quercus hemisphaerica* |
| Little Buckthorn | *Sageretia minutiflora* |
| Lizard's-Tail | *Saururus cernuus* |
| Loblolly Bay | *Gordonia lasianthus* |
| Loblolly Pine | *Pinus taeda* |
| Lyre-Leaved Sage | *Salvia lyrata* |
| Maidencane | *Panicum hemitomon* |
| Marsh Elder | *Iva frutescens* |
| Marsh Pennywort | *Hydrocotyle umbellata* |
| Marshhay Cordgrass | *Spartina patens* |
| Marshland Flat Sedge | *Cyperus distinctus* |
| Match-Head | *Phyla nodiflora* |
| Mermaid Weed | *Proserpinaca pectinata* |
| Mexican Tea | *Chenopodium ambrosoides* * |
| Milk Purslane | *Chamaesyce maculata* |
| Mistletoe | *Phoradendron serotinum* |
| Mistletoe | *Phoradendron leucarpum* |
| Mock Bishop's Weed | *Ptilimnium capillaceum* |
| Morning-Glory | *Ipomoea cordatriloba* |
| Mouse-Eared Chickweed | *Cerastium glomeratum* |
| Muscadine Grape | *Vitis rotundifolia* |
| Myrtle Oak | *Quercus myrtifolia* |
| Needle Rush | *Juncus roemerianus* |
| Nuttall's Thistle | *Cirsium nuttallii* |
| Oenothera | *Oenothera humifusa* |
| Old World Diamond Flower | *Hedyotis corymbosa* |
| Painted Leaf | *Euphorbia cyathophora* |
| Partridge Berry | *Mitchella repens* |
| Partridge Pea | *Cassia chamaecrista* |
| Partridge-Pea | *Chamaecrista fasciculata* |
| Passion Flower | *Passiflora incarnata* |
| Pearlwort | *Sagina decumbens* |
| Pellitory | *Parietaria floridana* |
| Pepper-Grass | *Lepidium virginicum* |
| Pepper-Vine | *Ampelopsis arborea* |
| Perennial Glasswort | *Salicornia virginica* |
| Persimmon | *Diospyros virginiana* |
| Pignut Hickory | *Carya glabra* |
| Pineland False Foxglove | *Agalinis divaricata* |
| Pineweed | *Hypericum gentianoides* |
| Pink Purslane | *Portulaca pilosa* |
| Pinweed | *Lechea mucronata* |
| Poison Ivy | *Toxicodendron radicans* |
| Pokeberry | *Phytolacca americana* |

| | |
|---|---|
| Pokeberry | *Phytolacca rigida* |
| Pond Pine | *Pinus serotina* |
| Pony-Foot | *Dichondra caroliniensis* |
| Poor Joe | *Dioda teres* |
| Prairie Wedgescale | *Sphenopholis obtusata* |
| Prickly-Pear Cactus | *Opuntia stricta* |
| Procession Flower | *Polygala incarnata* |
| Puncture Weed | *Tribulus terrestris* * |
| Purple Galium | *Galium hispidilum* |
| Purple Lovegrass | *Eragrostis spectalbilis* |
| Purple Sand Grass | *Triplasis purpurea* |
| Purslane | *Portulaca oleracea* * |
| Rabbit-Bells | *Crotalaria rotundiflora* |
| Railroad-Vine | *Ipomoea pes-caprae* |
| Rattan Vine | *Berchemia scandens* |
| Rattlesnake Master | *Eryngium yuccafolium* |
| Red Lovegrass | *Eragrostis secundiflora* |
| Red Mulberry | *Morus rubra* |
| Redbay | *Persea borbonia* |
| Redtop Panicum | *Panicum rigidulum* |
| Resurrection Fern | *Polypodium polypodioides* |
| Rhynchospora | *Rhynchospora megalocarpa* |
| Rock Finger Grass | *Chloris petraea* |
| Rock-Rose | *Helianthemum corymbosum* |
| Rock-Rose | *Helianthemum georgianum* |
| Rosemary | *Ceratiola ericoides* |
| Royal Fern | *Osmunda regalis* |
| Russian Thistle | *Salsola kali* * |
| Rustweed | *Polypremum procumbens* |
| Salt Marsh Bulrush | *Scirpus robustus* |
| Saltgrass | *Distichlis spicata* |
| Saltmarsh Cordgrass | *Spartina alterniflora* |
| Saltmarsh Fleabane | *Pluchea odorata* |
| Saltwort | *Batis maritima* |
| Sand Bean | *Strophostyles helvola* |
| Sand Cordgrass | *Spartina bakeri* |
| Sand Dune Spurge | *Chamaesyce bombensis* |
| Sand Vetch | *Vicia acutifolia* |
| Sandwort | *Arenaria lanuginosa* |
| Sandwort | *Polycarpon tetraphyllum* |
| Saw Palmetto | *Serenoa repens* |
| Scaleseed | *Spermolepsis echinata* |
| Scrub Live Oak | *Quercus geminata* |
| Sea Daisies | *Borrichia frutescens* |
| Sea Oats | *Uniola paniculata* |
| Sea Purslane | *Sesuvium portulacastrum* |

| | |
|---|---|
| Seabeach Orach | *Atriplex pentandra* |
| Seashore Dropseed | *Sporobolus virginicus* |
| Seashore Mallow | *Kosteletzkya virginica* |
| Seaside Goldenrod | *Solidago sempervirens* |
| Seaside Panicum | *Panicum amarum* |
| Seaside Spurge | *Chamaesyce polygonifolia* |
| Sedge | *Cyperus polystachyos* |
| Sedge | *Cyperus tetragonus* |
| Seedbox | *Ludwigia octovalvis* |
| Shore Rush | *Juncus marginatus* |
| Slash Pine | *Pinus elliottii* |
| Sleepy Catch-Fly | *Silene antirrhina* |
| Small-Fruited Pawpaw | *Asimina parviflora* |
| Smut Grass | *Sporobolus indicus* |
| Soapberry | *Sapindus saponaria* |
| Soft Rush | *Juncus effusus* |
| Sourdock | *Rumex hastatulus* |
| Southern Cattail | *Typha domingensis* |
| Southern Fleabane | *Erigeron quercifolius* |
| Southern Gaura | *Gaura angustifolia* |
| Southern Grape Fern | *Botrychium biternatum* |
| Southern Magnolia | *Magnolia grandiflora* |
| Southern Plantain | *Plantago virginica* |
| Southern Red Cedar | *Juniperus silicicola* |
| Southern Red Maple | *Acer rubrum* |
| Southern Sandspur | *Cenchrus echinatus* |
| Southern Sea Blite | *Suaeda linearis* |
| Spanish Dagger | *Yucca aloifolia* |
| Spanish Moss | *Tillandsia usneoides* |
| Spanish Needles | *Bidens alba* |
| Sparkleberry | *Vaccinium arboreum* |
| Spiderwort | *Tradescantia ohiensis* |
| Spikerush | *Eleocharis montevidensis* |
| Spiny Hornwort | *Ceratophyllum echinatum* |
| Spiny-Leaved Sow Thistle | *Sonchus asper* * |
| Spreading Scaleseed | *Spermolepsis divaricata* |
| Spring Coralroot | *Corallorhiza wisteriana* |
| Spring Ladies' Tresses | *Spiranthes vernalis* |
| Spurge | *Chamaesyce opthalmica* |
| Squirrel Sixweeks Grass | *Vulpia sciurea* |
| St. Andrew's Cross | *Hypericum hypericoides* |
| Staggerbush | *Lyonia ferruginea* |
| Staggerbush | *Lyonia fruticosa* |
| Standing Cypress | *Ipomopsis rubra* |
| Star Sabatia | *Sabatia stellaris* |
| Strawberry Bush | *Euonymus americanus* |

| | |
|---|---|
| Summer Grape | *Vitis aestivalis* |
| Surinam Sedge | *Cyperus surinamensis* |
| Swamp Pennywort | *Hydrocotyle verticillata* |
| Sweet Bay | *Magnolia virginiana* |
| Sweet Clover | *Melilotus alba* * |
| Sweet Goldenrod | *Solidago odora* |
| Sweetgum | *Liquidambar styraciflua* |
| Sweetleaf; Horse Sugar | *Symplocos tinctoria* |
| Switchgrass | *Panicum virgatum* |
| Tall Ironweed | *Veronia gigantea* |
| Tall Nut-Rush | *Scelaria triglomerata* |
| Tansy Mustard | *Descurainia pinnata* |
| Tar Flower | *Befaria racemosa* |
| Thin Paspalum | *Paspalum setaceum* |
| Thistle | *Cirsium horridulum* |
| Three-Seeded Mercury | *Acalypha gracilens* |
| Toad Rush | *Juncus bufonius* |
| Toadflax | *Linaria canadensis* |
| Tough Bumelia | *Bumelia tenax* |
| Tough Bumelia | *Sideroxylon tenax* |
| Tread Softly | *Cnidoscolus stimulosus* |
| Tropic Croton | *Croton glandulosus* |
| Tropical Sage | *Salvia coccinea* |
| Two Flowered Venus' Looking-Glass | *Triodanis biflora* |
| Two-Parted Rush | *Juncus dichotomus* |
| Vasey Grass | *Paspalum urvillei* |
| Venus' Looking-Glass | *Triodanis perfoliata* |
| Virginia Chain Fern | *Woodwardia virginica* |
| Virginia Creeper | *Parthenocissus quinquefolia* |
| Virginia Live Oak | *Quercus virginiana* |
| Virgin's Bower | *Clematis virginiana* |
| Water Arrowhead | *Sagittaria stagnorum* |
| Water Ash | *Ptelea trifoliata* |
| Water Meal | *Wolffia columbiana* |
| Water Oak | *Quercus nigra* |
| Water Pimpernel | *Samolus valerandi* |
| Water Primrose | *Ludwigia repens* |
| Wax Myrtle | *Myrica cerifera* |
| Weak-Leaf Yucca | *Yucca flaccida* |
| Whisk Fern | *Psilotum nudum* |
| White Sea Blite | *Suaeda maritima* |
| White Water-Lily | *Nymphaea odorata* |
| White-Top Sedge | *Rhynchospora colorata* |
| Wild Bamboo | *Smilax auriculata* |
| Wild Cherry | *Prunus serotina* |
| Wild Olive | *Osmanthus americanus* |

| | |
|---|---|
| Wild Onion | *Allium canadense* |
| Wild-Petunia | *Ruellia caroliniensis* |
| Wineflower | *Boehavia diffusa* |
| Winged Sumac | *Rhus copallina* |
| Wood Grass | *Oplismenus hirtellus* |
| Wood Sage | *Teucrium canadense* |
| Yaupon Holly | *Ilex vomitoria* |
| Yellow Jessamine | *Gelsemium sempervirens* |
| Yellow Nut Sedge | *Cyperus esculentus* * |
| Yellow Passionflower | *Passiflora lutea* |
| Yellow Wood-Sorrel | *Oxalis stricta* |
| Plant species list generated from Big and Little Talbot Island State Park Management Plan. | |

# Appendix F. Listed Species List

**Appendix F: Listed Species**

| Species | | | | |
|---|---|---|---|---|
| **Reptiles** | Federal Status[a] | State Status[b] | FNAI Presence[c] | Habitat |
| American Alligator *Alligator mississippiensis* | T(SA) | SSC | C | Marine/estuarine tidal marsh |
| Atlantic Loggerhead Turtle *Caretta caretta* | T | T | N | Atlantic Ocean, estuaries |
| Atlantic Green Turtle *Chelonia mydas* | E | E | | Atlantic Ocean, estuaries |
| Gopher Tortoise *Gopherus polyphemus* | T | SSC | | |
| **Birds** | | | | |
| Piping Plover *Charadrius melodus* | T | T | C | Coastal strands |
| Least Tern *Sterna antillarum* | - | T | C | Beach dunes, tidal marshes |
| American Oystercatcher *Haematopus paaliatus* | - | SSC | C | Beach dunes and mollusk reefs open water |
| Brown Pelican *Pelecanus occidentali* | - | SSC | P | Marine/estuarine , tidal marshes, open water |
| Black Skimmer *Rynchops niger* | - | SSC | P | Beach dunes, marshes, large lakes |
| Little Blue Heron *Egretta caerulea* | - | SSC | C | Tidal marshes, ponds, swamps |
| Snowy Egret *Egretta thula* | - | SSC | C | Tidal marshes, ponds, swamps |
| Tricolored Heron *Egretta tricolor* | - | SSC | C | Tidal marshes, ponds, swamps |
| White Ibis *Eudocimus albus* | - | SSC | C | Estuarine tidal marsh |
| Wood Stork *Mycteria Americana* | - | E | C | Marshes, ponds, and cypress swamps |
| Reddish Egret *Egretta rufescens* | - | SSC | - | Tidal marshes, ponds, swamps |
| Osprey *Padion haliatus* | - | SSC | | Open water, estuarine tidal marsh |
| Roseate Spoonbill *Platalea ajaja* | - | SSC | | Estuarine tidal marsh |

| | | | | |
|---|---|---|---|---|
| Peregrine Falcon<br>*Falco peregrinus* | - | E | | Coastal grasslands |
| Red Knot<br>*Calidris canutus* | * | - | - | Coastal sandy beaches, shoals, and mudflats. Nests on arctic tundra |
| **Mammals** | | | | |
| West Indian Manatee<br>*Trichecus manatus* | E | E | C | Atlantic Ocean, St. Johns River, Intracoastal Waterway, Fort George River, and nearby estuaries |
| Northern Right Whale<br>*Eubalaena glacialis* | E | E | | Atlantic Ocean |

[a] 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

[b] Source: 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
SSC = Species of Special Concern

[c] Source: Florida Natural Areas Inventory. 1997. County Distribution and Habitats of Rare and Endangered Species in Florida. 150p. + appendix 31

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

# Appendix G. FNAI Letter

Florida
Natural Areas
Inventory

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
850-224-8207
fax 850-681-9364
www.fnai.org

October 15, 2024

Brian Burket
City of Jacksonville
214 N. Hogan Street, 4th Floor
Jacksonville, FL 32202

Dear Mr. Burket,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). At your request we have produced the following report for your project area.

The purpose of this Standard Data Report is to provide objective scientific information on natural resources located in the vicinity of a site of interest, in order to inform those involved in project planning and evaluation. This Report makes no determination of the suitability of a proposed project for this location, or the potential impacts of the project on natural resources in the area.

**Project:** Huguenot Memorial Park

**Date Received:** 10/8/2024

**Location:** Duval County

## Element Occurrences

A search of our maps and database indicates that we currently have several element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

Federally Listed Species

Our data indicate federally listed species are present on or very near this site, specifically Piping Plover (*Charadrius melodus*) and Loggerhead Sea Turtle (*Caretta caretta*) (see enclosed map and tables for details). This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.

*The element occurrences data layer includes occurrences of rare species and natural communities. The map legend indicates that some element occurrences occur in the general vicinity of the label point. This may be due to lack of precision of the source data, or an element that occurs over an extended area (such as a wide ranging species or large natural community). For animals and plants, element occurrences generally refer to more than a casual sighting; they usually indicate a viable population of the species. Note that some element occurrences represent historically documented observations which may no longer be extant. Extirpated element occurrences will be marked with an 'X' following the occurrence label on the enclosed map.*

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational*

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The Florida State University

*data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*

## Likely and Potential Rare Species

In addition to documented occurrences, other rare species and natural communities may be identified on or near the site based on habitat models and species range models (see enclosed Biodiversity Matrix Report). These species should be taken into consideration in field surveys, land management, and impact avoidance and mitigation.

*FNAI habitat models indicate areas, which based on land cover type, offer suitable habitat for one or more rare species that is known to occur in the vicinity. Habitat models have been developed for approximately 300 of the rarest species tracked by the Inventory, including all federally listed species.*

*FNAI species range models indicate areas that are within the known or predicted range of a species, based on climate variables, soils, vegetation, and/or slope. Species range models have been developed for approximately 340 species, including all federally listed species.*

*The FNAI Biodiversity Matrix Geodatabase compiles Documented, Likely, and Potential species and natural communities for each square mile Matrix Unit statewide.*

CLIP

The enclosed map shows natural resource conservation priorities based on the Critical Lands and Waters Identification Project. CLIP is based on many of the same natural resource data developed for the Florida Forever Conservation Needs Assessment, but provides an overall picture of conservation priorities across different resource categories, including biodiversity, landscapes, surface waters, and aggregated CLIP priorities (that combine the individual resource categories). CLIP is also based primarily on remote sensed data and is not intended to be the definitive authority on natural resources on a site.

For more information on CLIP, visit https://www.fnai.org/services/clip.

## Managed Areas

Portions of the site appear to be located within the Huguenot Memorial Park, managed by the City of Jacksonville.

*The Managed Areas data layer shows public and privately managed conservation lands throughout the state. Federal, state, local, and privately managed conservation lands are included.*

## Land Acquisition Projects

This site appears to be located within the Pumpkin Hill Creek Florida Forever BOT Project, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands or visit https://floridadep.gov/lands/environmental-services/content/florida-forever.

*Florida Forever Board of Trustees (BOT) projects are proposed and acquired through the Florida Department of Environmental Protection, Division of State Lands. The state has no specific land management authority over these lands until they are purchased.*

The Inventory always recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species.

Please visit www.fnai.org/species-communities/tracking-main for county or statewide element occurrence distributions and links to more element information.

The database maintained by the Florida Natural Areas Inventory is the single most comprehensive source of information available on the locations of rare species and other significant ecological resources. However, the data are not always based on comprehensive or site-specific field surveys. Therefore this information should not be regarded as a final statement on the biological resources of the site being considered, nor should it be substituted for on-site surveys. Inventory data are designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

Information provided by this database may not be published without prior written notification to the Florida Natural Areas Inventory, and the Inventory must be credited as an information source in these publications. **The maps contain sensitive environmental information, please do not distribute or publish without prior consent from FNAI.** FNAI data may not be resold for profit.

Thank you for your use of FNAI services. If I can be of further assistance, please contact me at (850) 224-8207 or at kbrinegar@fnai.fsu.edu.

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl

Florida Natural Areas Inventory
1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
www.fnai.org

# Huguenot Memorial Park

Site boundaries are approximate.

## Duval County


### Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive

Point Indicates General Vicinity of Element

### Conservation Lands

- Federal
- State
- Local
- Private
- State Aquatic Preserves

### Land Acquisition Projects

- Florida Forever Board of Trustees Projects
- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Roads
- Water

**NOTE**
***This map contains environmentally sensitive information. Please do not distribute or publish without prior consent from FNAI. Map should not be interpreted without accompanying documents.***

*Map produced by KAB*
*10/15/2024*

# Huguenot Memorial Park

Site boundaries are approximate.

Duval County


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## CLIP v4.0 Resource Priorities

**Biodiversity Resource Category**

- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

**Landscape Resource Category**

- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

**Surface Water Resource Category**

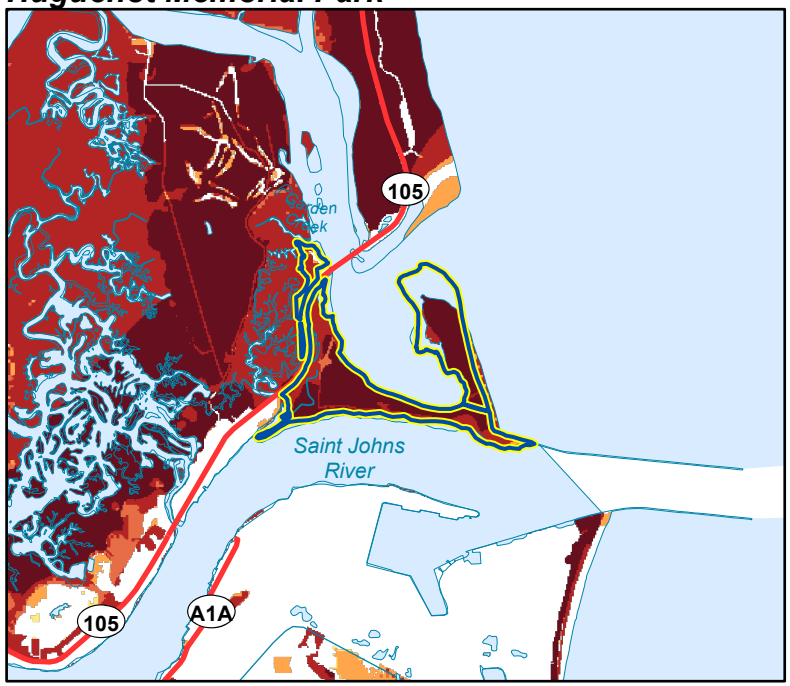
- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

**Aggregated CLIP Priorities**

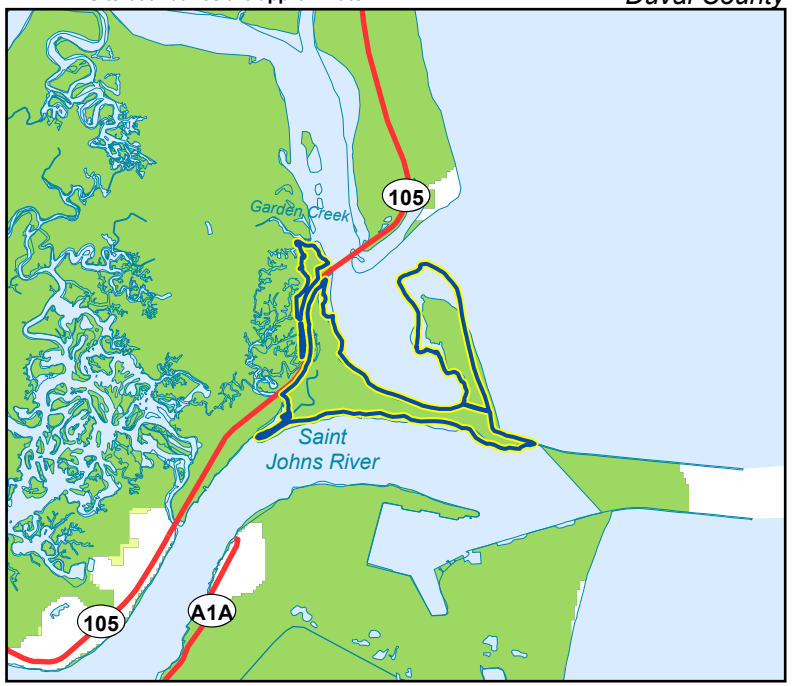
- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5

- Site Boundary

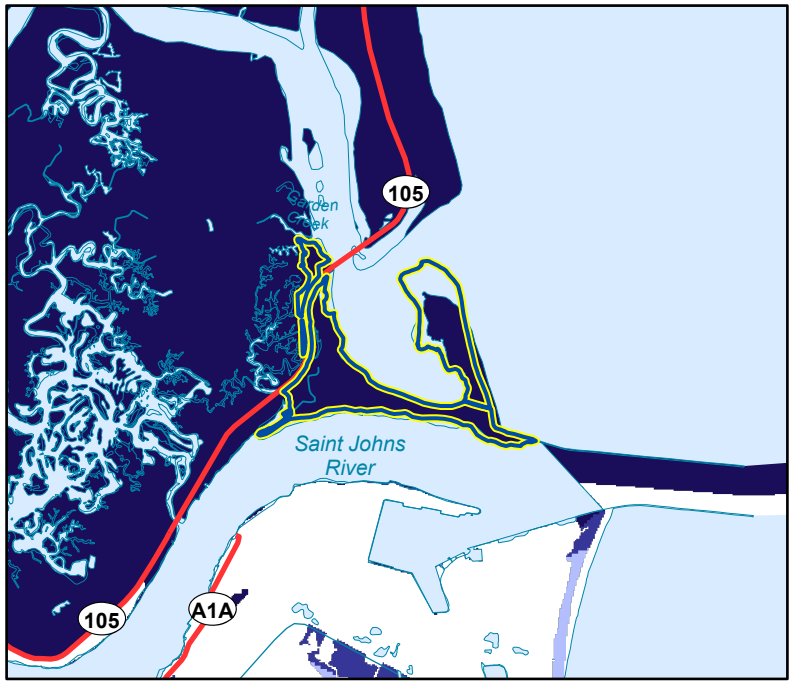
***Map should not be interpreted without accompanying documents.***



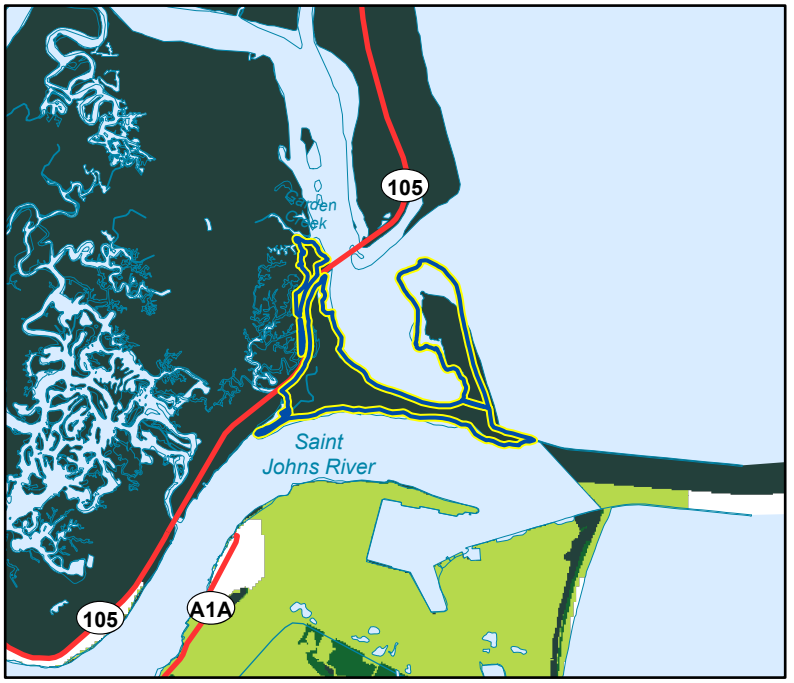

CLIP Biodiversity Resource Priorities



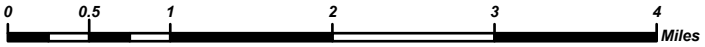

CLIP Landscape Resource Priorities




CLIP Surface Water Resource Priorities




CLIP Aggregated Resource Priorities





Critical Lands and Waters Identification Project (CLIP) is a cooperative effort between the FSU Florida Natural Areas Inventory, UF Center for Landscape Conservation Planning, and FL Fish & Wildlife Conservation Commission, with additional funding from FL Dept of Environmental Protection and US Fish & Wildlife Service.


***Map produced by KAB***
***10/15/2024***

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Tallahassee, FL 32303
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Florida Natural Areas Inventory

# FNAI ELEMENT OCCURRENCE REPORT on or near

## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| AMMOMACG*1 | *Ammospiza maritima macgillivraii* | Macgillivray's Seaside Sparrow | G4T3 | S2 | N | N | 2001-06-06 | 1988-07-09: Tidal Marsh; Spartina marsh with scattered patches of Juncus until several miles north of the St. Johns River; farther north, the Juncus is restricted to the fringes of higher islands and the mainland (U88MCD01FLUS). | 2000-2001: NeSmith and Jue (2003) recorded 785 seaside sparrows (404 at 80% of 128 counts in Nassau County, and 381 at 60% of 181 counts in Duval County) (N03NES01FLUS). 1988, 1986: Breeding Bird Atlas data - confirmed breeding at 6 locations between the St. Marys River and the St. Johns River; probable breeding at 3 additional locations (U92KAL01FLUS). 1987-1988: McDonald (1988) reports on surveys conducted by Kale and McDonald in June and July (note: Kale reports on broad areas surveyed, and McDonald reports for each survey stop, so numbers reported are not necessarily comparable); 47 areas with sparrows (3 areas with many, 42 areas with few), vs. 60 with none. Kale and McDonald estimate that 750 pairs of sparrows reside in the marshes along the Intracoastal Waterway between Jacksonville and the Florida-Georgia border (ca. 22 miles) (U88MCD01FLUS). |
| ATAEWENZ*7 | *Ataenius wenzelii* | An Ataenius Beetle | G3G5 | S2S3 | N | N | 1961-03-22 | 1961-03-22: No description given (B73WOO01FLUS). | 1961-03-22: One specimen was collected by L. W. Taylor using a blacklight trap (B73WOO01FLUS). 1961-03-08: Three specimens were collected by L. W.Taylor using a blacklight trap (B73WOO01FLUS). |
| BEACDUNE*171 | Beach dune | | G3 | S2 | N | N | 2004 | 5-10' DUNES ASSISTED BY PLASTIC EROSION CONTROL FENCE. VEGETATION VARIES FROM 50-100% COVER. | 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-16) (U05FNA02FLUS). UNIOLA PANICULATA-A; IVA IMBRICATA-F; SPARTINA PATENS-LA; HETEROTHECA SUBAXILLARIS-O; PANICUM AMARUM VAR. AMARULUM-R; IPOMOEA STOLONIFERA-C; CHAMAESYCE BOMBENSIS-O; HYDROCOTYLE BONARIENSIS; STROPHOSTYLES HELVOLA-R. |

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|---|---|---|---|---|---|---|---|---|---|
| BEACDUNE*208 | Beach dune | | G3 | S2 | N | N | 2004 | No general description given | 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1994-06-22) (U05FNA02FLUS). Narrow to very narrow (80-10 m) strip of Beach Dune encroached upon by development. The site can be divided into 3 zones of vegetation. (1) The foredune area is dominated by sea oats, beach hydrocotyle, beach tea, and seaside evening primrose. (2) The herbaceous flat is dominated by sea oats, camphor weed, sand bean, prickly pear cactus, beach hydrocotyle and contains a small area dominated by saltmeadow cordgrass. (3) The shrub zone is dominated by wax myrtle, beach elder, cabbage palm, salt bush, muscadine, and maypops. The area is bisected by a sand road to the beach and several foot paths. |
| CARECARE*1 | *Caretta caretta* | Loggerhead Sea Turtle | G3 | S3 | T | FT | 2012 | Atlantic Coast beaches and dunes. Some beaches are adjacent to highly developed lands, and others are included within managed natural areas. | Nesting beaches of the North Florida genetic subunit as defined by Shamblin et al. (2011) (A11SHA01FLUS). This includes all observed and likely habitat from Fort Clinch to Ponce de Leon Inlet. From 2008-2012, the surveyed beaches had annual nesting densities ranging from 1.82 to 21.95 nests per km; nesting density was highest on Flagler County beaches and at North Peninsula State Park (U13FWC01FLUS). |
| CHARMELO*17 | *Charadrius melodus* | Piping Plover | G3 | S2 | T | FT | 1991-01-20 | BEACH DUNE, MARINE UNCONSOLIDATED SUBSTRATE (TIDAL MUD AND SAND FLATS). | WINTERING SITE: 1991 PIPING PLOVER WINTER CENSUS (U92FWS01FL) FOUND 8 BIRDS IN 2.0 MILES OF SURVEY. 1987-02-18: 2 OBSERVED FORAGING ON EXPOSED MUD FLATS AT WARD'S BANK 2 FEB. 1986: 2 IN JAN. (U86JOH01FL). 1985: 2 ON 28 JAN., 5 ON 15 DEC. (U87NEV01FL). END BOUNDARIES ARE APPROXIMATE. |

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## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| CHARWILS*5 | *Charadrius wilsonia* | Wilson's Plover | G5 | S2 | N | N | 2015-03-26 | Two birds in breeding plumage observed in what appeared to be a pair bond. Frequent calling and behavior suggested a nest was located within the vicinity. Habitat consisted of an expansive sand flat. | Appeared to be a mating pair. |
| CHELMYDA*1 | *Chelonia mydas* | Green Sea Turtle | G3 | S2S3 | T | FT | 2019 | Atlantic Coast beaches and dunes; many bordered by development, but some protected as natural areas. For natural communities and major vegetation, see Ratnaswamy et al. (1997) (A97RAT01FLUS). | Nesting beaches for hundreds of km, with thousands of nests, with vast increase since 1980. Highest densities near Jupiter/Tequesta and southern Brevard County (U13FWC01FLUS). |
| CISTGRIS*3 | *Cistothorus palustris griseus* | Worthington's Marsh Wren | G5T3 | S2 | N | ST | 2001-06-06 | 1988-07-09: Tidal Marsh; Spartina marsh with scattered patches of Juncus until several miles north of the St. Johns River; farther north, the Juncus is restricted to the fringes of higher islands and the mainland (U88MCD01FLUS). | 2000-2001: NeSmith and Jue (2003) recorded 741 marsh wrens (376 at 92% of 128 counts in Nassau County, and 365 at 59% of 181 counts in Duval County north of the St. Johns River [SJR]) (N03NES01FLUS). 1988, 1986: Breeding Bird Atlas surveys confirmed breeding at 6 locations between the St. Marys River and the SJR and possible breeding at 1 additional location (U92KAL01FLUS). 1975-1980: Kale (1983) reported marsh wrens (and seaside sparrows) as occurring "abundantly in the Spartina marshes along the Intracoastal Waterway" from the SJR in Duval County northward into Georgia (A83KAL01FLUS); Kale (1996; based on 1975-80 surveys) estimated 1,000-2,000 pairs between the SJR and Cumberland Sound in Nassau County (B96ROD01FLUS). |

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## *Huguenot Memorial Park*

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|---|---|---|---|---|---|---|---|---|---|
| COASGRAS*57 | Coastal grassland | | G3 | S2 | N | N | 2004 | LARGE DRY SAND/SHELL AREA OF GRASSLAND WITH NUMEROUS ROADS AND UNPAVED PARKING SPACES. | 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1991-10-16) (U05FNA02FLUS). NO SINGLE DOMINANT SPECIES: UNIOLA PANICULATA-F; ANDROPOGON SP.-F; MUHLENBERGIA FILIPES-F; TRIPLASIS PURPUREA-C; SPARTINA PATENS-C; PANICUM AMARUM VAR. AMARULUM-O; HETEROTHECA SUBAXILLARIS-O-C; CENCHRUS ECHINATUS-O; HYDROCOTYLE BONARIENSIS-O-C; STROPHOSTYLES HELVOLA-O; IVA IMBRICATA-O; IPOMOEA PES-CAPRAE-R; I. STOLONIFERA-O; YUCCA GLORIOSA-R; Y. ALOIFOLIA-R; OPUNTIA PUSILLA-R; MYRICA CERIFERA-R. |
| COASSWAL*36 | Coastal interdunal swale | | G3 | S2 | N | N | 1991-10-17 | YOUNG SWALE BEHIND FOREDUNES-GRASSY. | MUHLENBERGIA FILIPES-50%; SPARTINA PATENS-20%; CYPERUS FLAVESCENS-5%; ERAGROSTIS CF. ELLIOTTII-5%; BACCHARIS HALIMIFOLIA-10%; SOLIDAGO SEMPERVIRENS-5%; FIMBRISTYLIS CAROLINIANA-10%; ANDROPOGON GLOMERATUS-10%; HYDROCOTYLE BONARIENSIS-10% ON EDGE. |

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# FNAI ELEMENT OCCURRENCE REPORT on or near

## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| CROTADAM*121 | *Crotalus adamanteus* | Eastern Diamondback Rattlesnake | G3 | S3 | UR | N | 2003-10-03 | 2003-10-03: Sightings made in relatively open but shrubby beach dune communities (U04MCP01FLUS). 1994: 2500 acre barrier island known to support this species. Snakes have been observed in the following habitats: mosquito control ditch backed by coastal d | 2003-10-03: Park has 5 records of sightings in 2003 (U04MCP01FLUS). 1996-04-28: 3ft long young adult, DOR (U96SHU01FLUS). 1994: Mathew Wingate reports fairly regular sightings over the past 10 years (1984-1994). The following are partial occurrences for 1994, most sighting occurred along roads (multiple observers). See attached sheets. October 1, 1994, a young individual, 17 inches long, found dead on road; September 23, 1994, young adult found dead on side of road; September 17, 1994, young individual, 14 inches, observed; September 15, 1994, young individual, 1 foot long, observed; September 10, 1994, young individual, 14 inches long, observed; September 7, 1994, young individual with 1 rattle observed; August 20, 1994, young DOR; August 13, 1994, 1 individual observed; August 1, 1994, 1 individual observed; July 26, 1994, 1 adult, 3 ft. long, observed; July 10, 1994, 1 adult, 4 feet long observed. 1963-08-25: AOR (specimen collected) (S63BUSCM). |
| DERMCORI*1 | *Dermochelys coriacea* | Leatherback Sea Turtle | G2 | S2 | E | FE | 2012 | Atlantic coast beaches and dunes. | Observed and likely nesting beaches from Georgia border to Cape Florida. Between 2008-2012, the surveyed beaches had annual nesting densities ranging from 0.03 to 20.75 nests per kilometer (U13FWC01FLUS). Nesting densities are highest on beaches in the vicinity of Jupiter. |
| DS*10670 | *Data Sensitive Element* | Data Sensitive | G5TNR | S2 | N | E | 2009-08-25 | Data Sensitive | Data Sensitive |
| DS*1223 | Data Sensitive Element | Data Sensitive | G2 | S2 | N | N | 1982-11-15 | Data Sensitive | Data Sensitive |
| DS*14852 | *Data Sensitive Element* | Data Sensitive | G5 | S3 | N | E | 1982-11-15 | Data Sensitive | Data Sensitive |
| DS*26651 | *Data Sensitive Element* | Data Sensitive | G4G5 | S1S2 | N | E | 1986 | Data Sensitive | Data Sensitive |

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# FNAI ELEMENT OCCURRENCE REPORT on or near

## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| FOREGODF*5 | *Forestiera godfreyi* | Godfrey's swampprivet | G2 | S2 | N | E | 2023-01-21 | 1999-11-18: Found with Ilex vomitoria, Quercus laurifolia, Sabal palmetto (PNDMCP01FLUS). 1985-07-21: Coastal Juniperus silicicola (S85HAL01FLUS.). 1984-11-06: Shell mound (S84SIM01FLUS). | Between March 2020 and January 2023, iNaturalist users have made several observations of at least a few individuals, both in flower and in leaf. 1999-11-18: This is a multi-point EO. Going from west to east the first location represents 6 individual stems, the second location represents 3 stems and the last location represents 1 stem. All individuals were sterile at the time of observation (PNDMCP01FLUS). Two specimens were collected in the 1980s. |
| GOPHPOLY*105 | *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST | 2004-01-20 | 2004-01-20: Burrows in relatively open beach dune community (U04MCP01FLUS). 1991: Maritime hammock and beach dune. Johnson observed burrows on secondary dune ridge (inland of primary, across grassy swale), described as narrow, 10-15 feet high, stable, wi | 2004-01-20: 2 active burrows. Tortoises commonly sighted by park staff (U04MCP01FLUS). 1991: Johnson observed 3 burrows: 1 in north end of island, 2 in south-central section in dune ridge (F91JOH44FLUS). 1983: no quantitative data, but good population (P84YOU01FLUS). |
| GOPHPOLY*5 | *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST | 2000-06-22 | 2000-06-22: Abandoned golf course fairways with woody encroachment from Pinus sp., Baccharis halimifolia, and Myrica cerifera (U04MCP01FLUS). 1982-11-15: old field that has not burned for years; dominant vegatation Rhus copallina and Rubus spp. with abun | 2000-06-22: At least 3 burrows (U04MCP01FLUS). 1982-11-15: South Point: S. Cooper counted 15 burrows of various sizes and estimated ca 50 on basis of suitable habitat not surveyed, also collected two scats (F82COO18FLUS). |
| GOPHPOLY*921 | *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST | 1994-12-20 | 1994-12-20: Grassy area dominated by Paspalum sp. and Muhlenbergia (PNDHIP01FLUS). | 1994-12-20: One tortoise in active burrow was observed in disturbed grassy area (PNDHIP01FLUS). |
| HAEMPALL*29 | *Haematopus palliatus* | American Oystercatcher | G5 | S2 | N | ST | 1989-06-23 | Unconsolidated substrate | 1989: R.M. Dunne, DEP - 1 adult on nest 6/23; CBR form available. Were not observed on 7/18 at this site. |
| PASSPOP1*4 | *Passerina ciris pop. 1* | Painted Bunting, eastern population | G5T3Q | S1S2 | N | N | 2003-07-11 | 2003-07-11: Birds are generally seen on maritime hammock edges and in early successional habitats (edges of saltmarsh or ruderal areas) (PNDMCP01FLUS). | 1999-2003: In May and June along approximately 2.4 km of roadway between 2 and 7 birds have been seen and heard; most observations were of males foraging or calling (PNDMCP01FLUS). |

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# FNAI ELEMENT OCCURRENCE REPORT on or near

## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| PASSPOP1*5 | *Passerina ciris pop. 1* | Painted Bunting, eastern population | G5T3Q | S1S2 | N | N | 2003-07-11 | 2003-07-11: Birds are generally seen on edges of maritime hammock and in early successional habitats bordering saltmarsh, coastal grassland or beach dune (PNDMCP01FLUS). | 2003-07-11: In the breeding season, 27 individuals in 4 surveys have been observed. Most were calling males, however, occasionally both males and females were sighted foraging or perching (PNDMCP01FLUS). |
| RYNCNIGE*49 | *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST | 1988 | Unconsolidated substrate | 1988 P.D. Southall, GFC. 90-100+ nests were counted each year in 1988 and 1989. Birds on territory in 1990. |
| RYNCNIGE*51 | *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST | 1993-05-28 | Beach dune | 1993/05/28: C.A. Moore, GFC, observed 250 adults. During the least tern survey a large group of black skimmers appeared to be loafing in the vicinity of the least tern colony. The observers approached the group in an attempt to confirm nesting. After disturbing about half the group, no nests were found. |
| SCRUB****13 | Scrub | | G2 | S2 | N | N | 2004 | BIG DUNE COVERED W/ SAND LIVE OAK & PALMETTO | 2010: Prior to the 2010 natural community reclassification effort this EO had been known as Coastal strand EO number 13 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1982) (U05FNA02FLUS). |
| SPHORUFI*11 | *Sphodros rufipes* | Red-legged Purse-web Spider | G4 | S3 | N | N | 1997-03-09 | 1997-03-09: Webs are found at bases of trees in mesic forest (U98MOL02FLUS). 1962: No description was given (A80GER01FLUS). | 1997-03-09: The species was collected on-site by B.W. Mansell. Webs found at base of trees (U98MOL02FLUS). 1962: Gertsch and Platnick (1980) recorded species as present here, based on fall 1962 collection of three females. More precise and updated record is needed (A80GER01FLUS). |
| STERANTI*100 | *Sternula antillarum* | Least Tern | G4 | S3 | N | ST | 1994-07-24 | Approximately 450 square meter nearly flat roof. The roof is covered by a 1 inch layer of loose 1/4-1/2 inch white gravel. | On 6-22-94 six individuals were observed sitting on nests. Thirteen other birds were flying around the site. It is likely that there were more than six nests. On 7-24-94 two hatchlings were observed at the site. |

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
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Florida Natural Areas Inventory

# FNAI ELEMENT OCCURRENCE REPORT on or near

## *Huguenot Memorial Park*

| Map Label | Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing | Observation Date | Description | EO Comments |
|---|---|---|---|---|---|---|---|---|---|
| STERANTI*129 | *Sternula antillarum* | Least Tern | G4 | S3 | N | ST | 1992 | Unconsolidated substrate and Beach dune | 1992-93: P. Powell, data (reproductive site) from FY 1992-93 Coastal Wildlife Questionnaire. Delorme page 58, site # 3. 1987: P.D. Southall, GFC, terns have nested since at least 1987 to the present (1990); 150 nests each year, estimated (U97GFC02FLUS). |
| STERANTI*132 | *Sternula antillarum* | Least Tern | G4 | S3 | N | ST | 1993-05-28 | Beach dune | 1993: 05/28 - C.A. Moore, GFC, observed 20 adults, 16 nests, 0 chicks; Least tern colony posted. Checked the area where the black skimmers were loafing for signs of nesting- found none. Large laughing gull colony (100's of birds) adjacent to the least terns; 06/26 - C.A. Moore, GFC, observed 30 adults, No walk-through survey of the least tern colony was made at this time. (U97GFC02FLUS). |
| STERANTI*133 | *Sternula antillarum* | Least Tern | G4 | S3 | N | ST | 1993-06-02 | Dredge spoil; Site area is a spoil disposal area in the shape of a basin. The least terns nested inside the basin and along the upper edge. | 1993/06/02: C.A. Moore, GFC, observed 100 adults, 43 nests, 11 chicks (exact count of chicks); Area was flagged and posted. Numerous laughing gulls (>50) were in the basin as observers approached but left (U97GFC02FLUS). |
| STERANTI*137 | *Sternula antillarum* | Least Tern | G4 | S3 | N | ST | 1989-07-18 | Unconsolidated substrate | 1989: 06/23 - R.M. Dunne, DEP, observed 14 adults, 4 nests, CBR form available; 07/18 - Dunne reports 8 adults, 3 nests (U97GFC02FLUS). |
| THALMAXI*46 | *Thalasseus maximus* | Royal Tern | G5 | S3 | N | N | 1993-05-28 | No general description given | 1993-05-28: C. A. Moore - During the least tern survey, about 150 royal terns appeared to be loafing along the shoreline. |

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Florida Natural Areas Inventory

# Biodiversity Matrix Report

| Scientific Name | Common Name | Global Rank | State Rank | Federal Status | State Listing |
|---|---|---|---|---|---|
| **Matrix Unit ID: 45290** | | | | | |
| **Likely** | | | | | |
| *Charadrius melodus* | Piping Plover | G3 | S2 | T | FT |
| Coastal grassland | | G3 | S2 | N | N |
| *Forestiera godfreyi* | Godfrey's swampprivet | G2 | S2 | N | E |
| *Mycteria americana* | Wood Stork | G4 | S2 | DL | FT |
| *Passerina ciris pop. 1* | Painted Bunting, eastern population | G5T3Q | S1S2 | N | N |
| *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST |
| *Sternula antillarum* | Least Tern | G4 | S3 | N | ST |
| *Thalasseus maximus* | Royal Tern | G5 | S3 | N | N |
| **Potential** | | | | | |
| *Acipenser brevirostrum* | Shortnose Sturgeon | G3 | S1 | E | FE |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | G3T3 | S1 | E | FE |
| *Ammospiza maritima macgillivraii* | Macgillivray's Seaside Sparrow | G4T3 | S2 | N | N |
| *Arnoglossum diversifolium* | variable-leaved Indian-plantain | G3 | S3 | N | T |
| *Ataenius wenzelii* | An Ataenius Beetle | G3G5 | S2S3 | N | N |
| *Caretta caretta* | Loggerhead Sea Turtle | G3 | S3 | T | FT |
| *Chelonia mydas* | Green Sea Turtle | G3 | S2S3 | T | FT |
| *Cistothorus palustris griseus* | Worthington's Marsh Wren | G5T3 | S2 | N | ST |
| *Coreopsis integrifolia* | ciliate-leaf tickseed | G1G2 | S1 | UR | E |
| *Ctenium floridanum* | Florida toothache grass | G2 | S2 | N | E |
| *Dermochelys coriacea* | Leatherback Sea Turtle | G2 | S2 | E | FE |
| *Drymarchon couperi* | Eastern Indigo Snake | G3 | S2? | T | FT |
| *Dryobates borealis* | Red-cockaded Woodpecker | G3 | S2 | E, PT | FE |
| *Eretmochelys imbricata* | Hawksbill Sea Turtle | G3 | S1 | E | FE |
| *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST |
| *Matelea floridana* | Florida spiny-pod | G2 | S2 | N | E |
| *Nemastylis floridana* | celestial lily | G3 | S3 | N | E |
| *Neovison vison lutensis* | Atlantic Salt Marsh Mink | G5T3 | S3 | N | N |
| *Trichechus manatus latirostris* | Florida Manatee | G2G3T2 | S2S3 | T | N |
| **Matrix Unit ID: 45291** | | | | | |
| **Documented** | | | | | |
| *Forestiera godfreyi* | Godfrey's swampprivet | G2 | S2 | N | E |
| *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST |
| **Likely** | | | | | |
| *Charadrius melodus* | Piping Plover | G3 | S2 | T | FT |
| *Mycteria americana* | Wood Stork | G4 | S2 | DL | FT |
| *Passerina ciris pop. 1* | Painted Bunting, eastern population | G5T3Q | S1S2 | N | N |
| *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST |
| Scrub | | G2 | S2 | N | N |
| *Sphodros rufipes* | Red-legged Purse-web Spider | G4 | S3 | N | N |
| *Sternula antillarum* | Least Tern | G4 | S3 | N | ST |
| *Thalasseus maximus* | Royal Tern | G5 | S3 | N | N |
| **Potential** | | | | | |

***Definitions:*** *Documented - Rare species and natural communities documented on or near this site.*
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*Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.*
*Potential - This site lies within the known or predicted range of the species listed.*

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Suite 200-C
Tallahassee, FL 32303
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# Biodiversity Matrix Report

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|---|---|---|---|---|---|
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | G3T3 | S1 | E | FE |
| *Ammospiza maritima macgillivraii* | Macgillivray's Seaside Sparrow | G4T3 | S2 | N | N |
| *Arnoglossum diversifolium* | variable-leaved Indian-plantain | G3 | S3 | N | T |
| *Cistothorus palustris griseus* | Worthington's Marsh Wren | G5T3 | S2 | N | ST |
| *Coreopsis integrifolia* | ciliate-leaf tickseed | G1G2 | S1 | UR | E |
| *Dermochelys coriacea* | Leatherback Sea Turtle | G2 | S2 | E | FE |
| *Drymarchon couperi* | Eastern Indigo Snake | G3 | S2? | T | FT |
| *Dryobates borealis* | Red-cockaded Woodpecker | G3 | S2 | E, PT | FE |
| *Eretmochelys imbricata* | Hawksbill Sea Turtle | G3 | S1 | E | FE |
| *Haematopus palliatus* | American Oystercatcher | G5 | S2 | N | ST |
| *Matelea floridana* | Florida spiny-pod | G2 | S2 | N | E |
| *Nemastylis floridana* | celestial lily | G3 | S3 | N | E |
| *Neovison vison lutensis* | Atlantic Salt Marsh Mink | G5T3 | S3 | N | N |
| *Peperomia humilis var. humilis* | terrestrial peperomia | G5TNR | S2 | N | E |
| Shell mound | | G2 | S2 | N | N |
| *Trichechus manatus latirostris* | Florida Manatee | G2G3T2 | S2S3 | T | N |

**Matrix Unit ID: 45663**

**Documented**

| | | | | | |
|---|---|---|---|---|---|
| *Charadrius melodus* | Piping Plover | G3 | S2 | T | FT |

**Likely**

| | | | | | |
|---|---|---|---|---|---|
| Beach dune | | G3 | S2 | N | N |
| *Caretta caretta* | Loggerhead Sea Turtle | G3 | S3 | T | FT |
| *Chelonia mydas* | Green Sea Turtle | G3 | S2S3 | T | FT |
| Coastal grassland | | G3 | S2 | N | N |
| *Lepidochelys kempii* | Kemp's Ridley Sea Turtle | G1 | S1 | E | FE |
| *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST |
| *Sternula antillarum* | Least Tern | G4 | S3 | N | ST |
| *Thalasseus maximus* | Royal Tern | G5 | S3 | N | N |

**Potential**

| | | | | | |
|---|---|---|---|---|---|
| *Acipenser brevirostrum* | Shortnose Sturgeon | G3 | S1 | E | FE |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | G3T3 | S1 | E | FE |
| *Dermochelys coriacea* | Leatherback Sea Turtle | G2 | S2 | E | FE |
| *Drymarchon couperi* | Eastern Indigo Snake | G3 | S2? | T | FT |
| *Eretmochelys imbricata* | Hawksbill Sea Turtle | G3 | S1 | E | FE |
| *Nemastylis floridana* | celestial lily | G3 | S3 | N | E |
| *Trichechus manatus latirostris* | Florida Manatee | G2G3T2 | S2S3 | T | N |

**Matrix Unit ID: 45664**

**Documented**

| | | | | | |
|---|---|---|---|---|---|
| *Charadrius wilsonia* | Wilson's Plover | G5 | S2 | N | N |
| *Dermochelys coriacea* | Leatherback Sea Turtle | G2 | S2 | E | FE |

**Likely**

| | | | | | |
|---|---|---|---|---|---|
| Beach dune | | G3 | S2 | N | N |
| *Caretta caretta* | Loggerhead Sea Turtle | G3 | S3 | T | FT |

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|---|---|---|---|---|---|
| *Charadrius melodus* | Piping Plover | G3 | S2 | T | FT |
| *Chelonia mydas* | Green Sea Turtle | G3 | S2S3 | T | FT |
| Coastal interdunal swale | | G3 | S2 | N | N |
| *Gopherus polyphemus* | Gopher Tortoise | G3 | S3 | N | ST |
| *Lepidochelys kempii* | Kemp's Ridley Sea Turtle | G1 | S1 | E | FE |
| *Rynchops niger* | Black Skimmer | G5 | S3 | N | ST |
| *Sternula antillarum* | Least Tern | G4 | S3 | N | ST |
| *Thalasseus maximus* | Royal Tern | G5 | S3 | N | N |
| **Potential** | | | | | |
| *Acipenser oxyrinchus oxyrinchus* | Atlantic Sturgeon | G3T3 | S1 | E | FE |
| *Drymarchon couperi* | Eastern Indigo Snake | G3 | S2? | T | FT |
| *Eretmochelys imbricata* | Hawksbill Sea Turtle | G3 | S1 | E | FE |
| *Haematopus palliatus* | American Oystercatcher | G5 | S2 | N | ST |
| *Matelea floridana* | Florida spiny-pod | G2 | S2 | N | E |
| *Nemastylis floridana* | celestial lily | G3 | S3 | N | E |
| *Trichechus manatus latirostris* | Florida Manatee | G2G3T2 | S2S3 | T | N |

***Definitions:*** *Documented - Rare species and natural communities documented on or near this site.*
*Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.*
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## Elements and Element Occurrences

An **element** is any exemplary or rare component of the natural environment, such as a species, natural community, bird rookery, spring, sinkhole, cave, or other ecological feature.

An **element occurrence (EO)** is an area of land and/or water in which a species or natural community is, or was, present. An EO should have practical conservation value for the Element as evidenced by potential continued (or historical) presence and/or regular recurrence at a given location.

## Element Ranking and Legal Status

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

### FNAI GLOBAL ELEMENT RANK

**G1** = Critically imperiled globally because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
**G2** = Imperiled globally because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
**G3** = Either very rare and local throughout its range (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
**G4** = Apparently secure globally (may be rare in parts of range).
**G5** = Demonstrably secure globally.
**GH** = Of historical occurrence throughout its range, may be rediscovered (e.g., ivory-billed woodpecker).
**GX** = Believed to be extinct throughout range.
**GXC** = Extirpated from the wild but still known from captivity or cultivation.
**G#?** = Tentative rank (e.g., G2?).
**G#G#** = Range of rank; insufficient data to assign specific global rank (e.g., G2G3).
**G#T#** = Rank of a taxonomic subgroup such as a subspecies or variety; the G portion of the rank refers to the entire species and the T portion refers to the specific subgroup; numbers have same definition as above (e.g., G3T1).
**G#Q** = Rank of questionable species - ranked as species but questionable whether it is species or subspecies; numbers have same definition as above (e.g., G2Q).
**G#T#Q** = Same as above, but validity as subspecies or variety is questioned.
**GU** = Unrankable; due to a lack of information no rank or range can be assigned (e.g., GUT2).
**GNA** = Ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
**GNR** = Element not yet ranked (temporary).
**GNRTNR** = Neither the element nor the taxonomic subgroup has yet been ranked.

### FNAI STATE ELEMENT RANK

**S1** = Critically imperiled in Florida because of extreme rarity (5 or fewer occurrences or less than 1000 individuals) or because of extreme vulnerability to extinction due to some natural or man-made factor.
**S2** = Imperiled in Florida because of rarity (6 to 20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor.
**S3** = Either very rare and local in Florida (21-100 occurrences or less than 10,000 individuals) or found locally in a restricted range or vulnerable to extinction from other factors.
**S4** = Apparently secure in Florida (may be rare in parts of range).
**S5** = Demonstrably secure in Florida.
**SH** = Of historical occurrence in Florida, possibly extirpated, but may be rediscovered (e.g., ivory-billed woodpecker).
**SX** = Believed to be extirpated throughout Florida.
**SU** = Unrankable; due to a lack of information no rank or range can be assigned.
**SNA** = State ranking is not applicable because the element is not a suitable target for conservation (e.g. a hybrid species).
**SNR** = Element not yet ranked (temporary).

**FEDERAL LEGAL STATUS**

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant federal agency.

Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

**C** = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.
**E** = Endangered: species in danger of extinction throughout all or a significant portion of its range.
**E, T** = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
**E, PDL** = Species currently listed endangered but has been proposed for delisting.
**E, PT** = Species currently listed endangered but has been proposed for listing as threatened.
**E, XN** = Species currently listed endangered but tracked population is a non-essential experimental population.
**T** = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
**PE** = Species proposed for listing as endangered.
**PS** = - An infraspecific taxon or population has federal status but the entire species does not - status is in only a portion of the species range.
**PT** = Species proposed for listing as threatened.
**SAT** = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.
**SC** = Not currently listed, but considered a "species of concern" to USFWS.
**DL** = Delisted.
**UR** = Under review.

**STATE LEGAL STATUS**

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency.

**Animals:** Definitions derived from "Florida's Endangered Species and Species of Special Concern, Official Lists" published by Florida Fish and Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

**C** = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service
**FE** = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service
**FT** = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service
**FXN** = Federal listed as an experimental population in Florida
**FT(S/A)** = Federal Threatened due to similarity of appearance
**ST** = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.
**SSC** = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for Pandion haliaetus (Osprey) indicates that this status applies in Monroe county only.)
**N** = Not currently listed, nor currently being considered for listing.

**Plants:** Definitions derived from Sections 581.011, 581.185 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=5B-40.

**E** = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.
**T** = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.
**CE** = Commercially exploited: species native to the state which are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.
**N** = Not currently listed, nor currently being considered for listing.

## Element Occurrence Ranking

FNAI ranks of quality of the element occurrence in terms of its viability (EORANK). Viability is estimated using a combination of factors that contribute to continued survival of the element at the location. Among these are the size of the EO, general condition of the EO at the site, and the conditions of the landscape surrounding the EO (e.g. an immediate threat to an EO by local development pressure could lower an EO rank).

**A** = Excellent estimated viability
**A?** = Possibly excellent estimated viability
**AB** = Excellent or good estimated viability
**AC** = Excellent, good, or fair estimated viability
**B** = Good estimated viability
**B?** = Possibly good estimated viability
**BC** = Good or fair estimated viability
**BD** = Good, fair, or poor estimated viability
**C** = Fair estimated viability
**C?** = Possibly fair estimated viability
**CD** = Fair or poor estimated viability
**D** = Poor estimated viability
**D?** = Possibly poor estimated viability
**E** = Verified extant (viability not assessed)
**F** = Failed to find
**H** = Historical
**NR** = Not ranked, a placeholder when an EO is not (yet) ranked.
**U** = Unrankable
**X** = Extirpated

*For additional detail on the above ranks see: http://www.natureserve.org/explorer/eorankguide.htm

FNAI also uses the following EO ranks:

**H?** = Possibly historical
**F?** = Possibly failed to find
**X?** = Possibly extirpated

The following offers further explanation of the H and X ranks as they are used by FNAI:

The rank of H is used when there is a lack of recent field information verifying the continued existence of an EO, such as (a) when an EO is based only on historical collections data; or (b) when an EO was ranked A, B, C, D, or E at one time and is later, without field survey work, considered to be possibly extirpated due to general habitat loss or degradation of the environment in the area. This definition of the H rank is dependent on an interpretation of what constitutes "recent" field information. Generally, if there is no known survey of an EO within the last 20 to 40 years, it should be assigned an H rank. While these time frames represent suggested maximum limits, the actual time period for historical EOs may vary according to the biology of the element and the specific landscape context of each occurrence (including anthropogenic alteration of the environment). Thus, an H rank may be assigned to an EO before the maximum time frames have lapsed. Occurrences that have not been surveyed for periods exceeding these time frames should not be ranked A, B, C, or D. The higher maximum limit for plants and communities (i.e., ranging from 20 to 40 years) is based upon the assumption that occurrences of these elements generally have the potential to persist at a given location for longer periods of time. This greater potential is a reflection of plant biology and community dynamics. However, landscape factors must also be considered. Thus, areas with more anthropogenic impacts on the environment (e.g., development) will be at the lower end of the range, and less-impacted areas will be at the higher end.

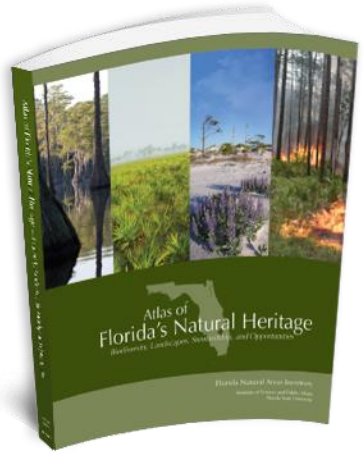
The rank of X is assigned to EOs for which there is documented destruction of habitat or environment, or persuasive evidence of eradication based on adequate survey (i.e., thorough or repeated survey efforts by one or more experienced observers at times and under conditions appropriate for the Element at that location).

ON SALE NOW

# Atlas of Florida's Natural Heritage

*Biodiversity, Landscapes, Stewardship, and Opportunities*

The Florida Natural Areas Inventory is pleased to announce the publication of the ***Atlas of Florida's Natural Heritage: Biodiversity, Landscapes, Stewardship, and Opportunities***. This high-quality, full-color *Atlas* is sure to become a standard reference for anyone involved in the conservation, management, study, or enjoyment of Florida's rich natural resources. We hope the *Atlas* will inspire, educate, and raise awareness of and interest in biodiversity and conservation issues.

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# Appendix H. Fire Management Plan

# PRESCRIBED FIRE PLAN

Unit Name: Huguenot Memorial City Park

Acres To Be Burned: 19

Legal Description: Latitude 30°, 24.93′ Longitude 81°, 24.52′

Land Owner: City of Jacksonville

County: Duval

## I. GENERAL DESCRIPTION OF BURN UNIT

Physical Features and Vegetation Cover Types:

The unit is located on the north end of Huguenot Island. Topography consists of rolling dunes. The primary communities are beach dune and backdune. Interdunal grassy swales contain coastal dune grasses, such as sea oats (*Uniola paniculata*), bitter panicum (*Panicum amarum*) and railroad vine (*Ipomoea pes-caprae*). There is no tree overstory. Fuel models are 1 & 3.

Objectives of Fire:

In order to improve nesting habitat for the Royal Tern and other shorebirds, the objective is to burn the grassy swales at high intensity to open up sandy patches and set back succession.

Acceptable Range of Results:

60-90% of unit burned.

## II. PLANNING AND ACTIONS

Weather Factors:

| | |
|---|---|
| Maximum Temp. | 90 |
| Minimum RH (%) | 20 |
| Maximum 20ft Wind (mph) | 15 |
| Acceptable Wind Direction | W, NW, SW, E, NE |
| Min. Dispersion Index (day) | 30 |
| Min. Dispersion Index (night) | 3 |
| Min. Mixing Height (ft) | 1,700 |

Burn Techniques: Strip-head, spot fires, flanking.

Starting Time:

10 -2 pm depending upon wind direction and sea breeze effects

Equipment and Personnel Needs:

Type VI engine, 2 ATVs, 5 personnel.

Site Preparation:

A foam line will be put down on the south side of the burn unit. The remainder of the burn unit is surrounded by water.

Special Precautions:

The south boundary of the unit should be monitored by the engine crew to observe and extinguish any spot-overs.

The coastal dunes can be sensitive to disturbance caused by vehicles and ATV's therefore personnel are encouraged to exercise caution when operating in the dunes and conduct operations on foot when possible.

As the burn unit is surrounded on three sides by water, wind shifts are probable.

Conditions at the Mayport Naval Air Station will be monitored for emergent problems by NAS staff.

Communication:

All personnel will have handheld radios and will operate on FWC channel 8.

Contact Numbers:

Chris Winterman, Huguenot Memorial Park - (904) 251-3335
Judy Malcolm, City of Jacksonville, Air Quality – (904) 630-1212 x 3897
Cheryl Mitchell, Mayport NS, Environmental Office – (904) 270-6730 x201
(904) 699-5420 (cell)
Barry Coulliette, FAS, Div. of Forestry – (904) 266-5022

## III. SMOKE MANAGEMENT

Smoke sensitive areas are Mayport Navy Base (south 1.25 miles), and Highway A1A (west .75 miles and northwest .5 miles). Because of these hazards, surface and transport winds are required to be W, NW, SW, E or NE. Surface winds should be a minimum of 5 mph , mixing height should be a minimum of 1,700 ft. Dispersion index should be a minimum of 30 (daytime) and 3 (evening).

Prescription Done By: Jim Garrison
Date: 1/5/06
Certification #: 96-2749

# Huguenot Prescribed Burn
# 2006

# Appendix I. Beach Driving Plan

## Appendix I. BEACH DRIVING PLAN

### A. Visitor Admissions

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

| Huguenot Park (Year) | Admissions (Number of guests) |
|---|---|
| 2004 | 396,004 |
| 2005 | 367,511 |
| 2006 | 410,798 |
| 2007 | 370,050 |
| 2008 | 408,855 |
| 2009 | 299,428 |
| 2010 | 315,259 |
| 2011 | 321,155 |
| 2012 | 291,537 |
| 2013 | 270,474 |
| 2014 | 295,196 |
| 2015 | 321,404 |
| 2016 | 315,260 |
| 2017 | 243,685 closed for 48 days due to Hurricanes Matthew and Irma |
| 2018 | 280,798 |
| 2019 | 305,161 |
| 2020 | 321,791 |
| 2021 | 383,706 |
| 2022 | 401,711 |
| 2023 | 395,151 |

An entrance fee for Huguenot Memorial Park 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 from $3 FY14 to $4 FY15and in FY16 to $5 per vehicle. An annual vehicle pass rate also increased from $80 to $99.

The rates for camping are as follows:

- Tent Camping: $22.70 as of FY17
- RV and camper: $27.24 as of FY17
- There is no current day-use fee, proposed day-use fee or traffic data for Alimacani Island.

### 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. The portion along the shoreline of the cove area associated with the Ft. George Inlet has been permanently closed to driving due to dune growth which encroached the driving lane. The tidal flats area will be restricted to vehicle access at all times with use of bollards strung with rope. Periodic closures of certain areas to beach driving may be necessary to protect state and federally listed or imperiled species habitats. Please refer to the Shorebird Management Plan (Appendix J) for temporary restriction protocols relating to nesting and/ or imperiled species protection.

Beach driving is currently permitted from 6:00 am (after ensuring there are no sea turtles present on the beach during turtle nesting season) to 7:00 pm during Daylight Savings Time. From Memorial Day weekend through Labor Day weekend, the park hours are 6:00 am to 7:00 pm Monday through Thursday and 6:00 am to 8:00 pm on Friday, Saturday, Sunday, and Holidays. During the winter season, beach driving will be from 6:00 am to 6:00 pm. Night beach driving is not permitted anytime. The City may modify operating hours, it deems appropriate, to ensure compliance with their responsibilities of managing the park for resources and resource-based activities.

## C. Beach Driving

A conservation zone has been established on the Atlantic Ocean beach since 2009. 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.

Zones 5 – 13 allows driving and parking and will not be designated by signage, with the exception of the 15-foot conservation zone. However, Zones 13 and 14 have both been permanently closed to driving due to the expansion of the dunes into the existing driving lane in 2017.

Certain vehicles will not be allowed to access the beach; 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. Only vehicles that are tagged, licensed and insured will be allowed.

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:

1. Staff will be stationed on the Oceanfront shoreline to monitor tide conditions one hour before high tide.

2. Admission personnel will start alerting customers of potential beach closures one hour prior to the peak high tide event. Tides will be posted daily at the entrance gate for customers to read.

3. Staff or JSO will be directed to contact beachgoers to instruct them of tidal conditions that may threaten their vehicle.

4. Staff or Jacksonville Fire and Rescue will ensure that a rescue lane is still available as tidal conditions change.

5. When areas become hazardous, JSO will be instructed to direct incoming traffic to the off beach parking lot or less congested areas of the beach.

6. When the beach reaches capacity based on tides, staff will be stationed at the parking lot entrance and the gates for beach access will be closed with a staff member stationed in the area to answer questions.

7. Staff on the east side of the flats shall alert visitors leaving the beach that they will not be allowed back on the beach until after high tide when park management determines conditions are safe.

8. Port-o-lets will be placed strategically on the inlet shoreline just before the exit to accommodate bathroom use.

9. One park member will be stationed in the off beach parking lot and will alert the manager of when there are forty spots remaining open for utilization of customers coming off the beach but wanting to remain in the park.

10. When the park reaches capacity based on conditions, two or more JSO officers will be positioned at the front entrance and barricades will be used to stop vehicles from entering.

11. The office staff will notify local businesses and Little Talbot Island State Park that they can expect an influx of customers.

12. The park will be closed to all new customers, and no one will be allowed in with exception to the Managers discretion.

13. Management will call FDOT to post congestion and/or closures of the park on their information boards on Heckscher Drive, North and South 295 and Merrill Roads. Once the situation has resolved itself, FDOT will be notified to take down the notice.

14. Two additional “Huguenot Park Closed” signs with flashing lights will be turned on by park staff. One located just east of the Fort George Bridge and a second just north of the Sandollar Restaurant. They will be turned off by staff when the event is over.

15. Following high tide, park management will determine when conditions are safe to reopen the park.

16. First the family beach area will be allowed to re-enter the Atlantic Beach shoreline, then those vehicles in the parking lot will enter and finally the front of the park will allow new entries to prevent traffic congestion.

Protection protocol for wildlife:

1. 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.

2. Staff or enforcement personnel will be directed by management to contact visitors to instruct them that their actions may be threatening to wildlife.

3. Staff or enforcement personnel will advise the visitor(s) that they are required to move their vehicle to another area of the park.

4. The area that is to be temporarily restricted will be marked with signage by park staff.

5. The area will remain restricted until the wildlife has left the area, upon which time the signage will be removed by staff and the area reopened.

6. Vehicles will not be allowed to access any emergent shoals within the shorebird nesting closure area.

7. If there is a natural occurrence that prevents vehicles from accessing the shoals signage will not be posted. If any vehicles have the ability to access the emergent shoals at low tide, cones will be used to alert and prevent vehicular access.

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

9. 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.

**D. Overflow parking or day-use lot**

An off beach parking lot consisting of 172 regular and four ADA spaces was developed on 08/12/2011 at a cost of $422,393.

**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.

<u>Process for establishing the restricted zones for nesting species:</u>

1. Each year, COJ will establish a Shorebird Management Team, which will consist of biologists from COJ, FWC, USF&W, Little Talbot Island State Park, Audubon and the Park Manager and Park Naturalist.

2. The Shorebird Management Team will at meet at Huguenot once the weekly shorebird monitoring team has detected that species have arrived and are nesting.

3. COJ will monitor the nesting sites daily to detect the presence of flightless juveniles.

4. The Shorebird Management Team will then discuss measures to protect the flightless birds to include establishing a temporary zone where beach driving may be restricted and/or other means of protection is agreed upon such as an educational zone that allows shared use of the shoreline.

5. Sandwich board signs will be used at the entrance to the park to make customers aware of flightless birds on the beach.

6. COJ staff will monitor the zone to document any fatalities within the zone and for evidence that the juvenile birds are able to fly.

7. The Shorebird Management Team will then meet again to determine if it is safe for wildlife to remove the restrictions.

8. Seasonal and annual evaluation and review of management strategies.

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:

1. Each year, COJ will establish a Shorebird Management Team, which will consist of biologists from COJ, FWC, USF&W, Little Talbot Island State Park, Audubon and the Park Manager and Park Naturalist.

2. 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 to establish temporarily restricted areas.
3. Once the restricted zones have been established, COJ staff will use cones set at a 300-foot perimeter and sandwich boards or other measures (public notices, hand-out notices) to alert patrons that those areas are temporarily restricted from recreational use such as swimming, wading and kite surfing.

4. These restricted zones only occur during low tides when the sandy shoals are exposed and are being used by shorebirds for foraging.

5. 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.

6. The Shorebird Management Team will reconvene once the shorebird monitors have reported that the imperiled, migratory birds have departed Huguenot.

7. Seasonal and annual evaluation and review of management strategies.

8. Annual report of REKN movements, populations, frequency of visitation (by habitat).

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 re-nourishment, 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.

The City hired a full-time Park Naturalist Specialist in 2010 to provide lead support for the shorebird management program. Primary responsibilities to include monitoring, protection approved by the manager, 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"). Any temporary closures will be approved by the Director of Parks, COJ. 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.

**F. Beach monitoring**

A park staff member will routinely observe tide conditions and alert the manager of impending tide events. Park staff as well as JSO officers 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.

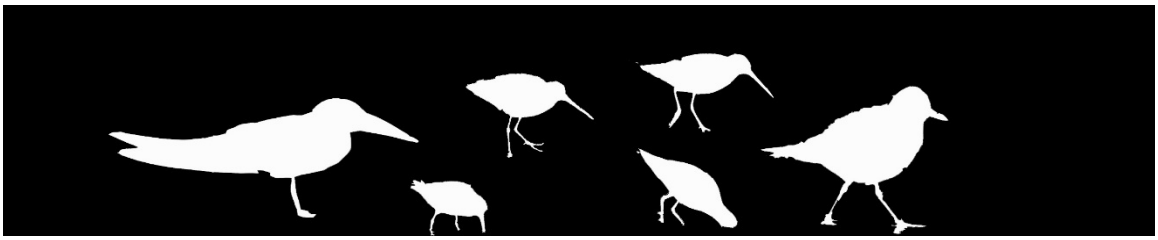
**G. Customer early alert system**

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 (904) 255-4255.

Park staff at the admissions gates will be alerted of any challenges related to tides or other potentially hazardous conditions. The admission personnel will alert all incoming visitors of those conditions and give them the option of entering or returning later when the conditions have changed. Sandwich board signs will be used to alert customers of those conditions before entering the park as well as the universal flag warning system.

# Appendix J. Shorebird Management Plan

# Huguenot Memorial Park



# Shorebird Management Plan

**November 7, 2024**

**Waterfront Management & Programming**

City of Jacksonville
Department of Recreation
& Community Services

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**Huguenot Memorial Park**
**Shorebird Management Plan**

## *Introduction*

This shorebird management plan (SMP) is an attachment to the current proposed City of Jacksonville (COJ) Huguenot Memorial Park Management Plan (lease # 3101). Therefore, the SMP is designed to meet specific managerial requirements suggested by Federal and State environmental regulatory agencies in coordination with all other stake holders within the region. The goal is not only to cooperatively protect, observe/record trends, and jointly manage shorebird natural communities within and adjacent to Huguenot, but to optimize educational opportunities to all visitors to the region.

COJ has taken resource proactive measures and implemented the initial focus of phase I and phase II with continued effort for phase III in the SMP (Figure 1). The focus was and is to continue to observe species that utilize the coastline, especially intertidal regions, outside of the HMP protected critical wildlife area (CWA) and determine which areas/species are prone to human disturbance. Annual herbicide treatments, prescribed burns and dune re-nourishments using sand fencing continues.

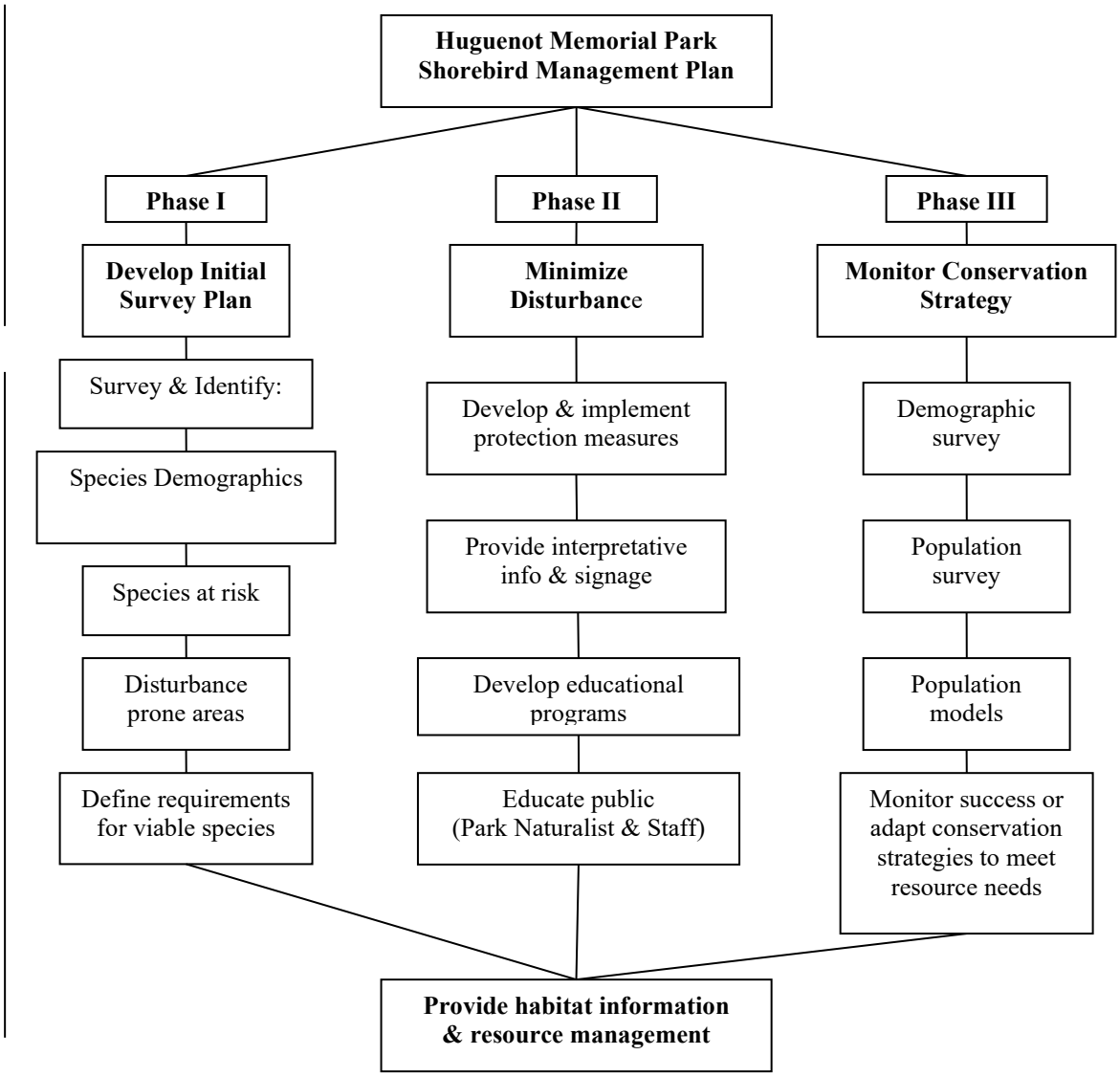


**Figure 1.** Huguenot Memorial Park shorebird management plan conceptual diagram. Methods are in accordance with State agencies' recommendations and are subject to change as plan further develops. Adapted from Nicely 2003.

### *Affected Areas*

Intertidal regions (sand bars/shoals) inside the Ft. George River Basin in close proximity to shore are currently monitored by management/volunteers and are often accessible in low tide occurrences. State owned shoals and sand bars offshore are not included within the park boundary and are not currently managed by COJ due to safety and intermittent tidal inaccessibility. Nevertheless, disturbance to these areas results in part due to pedestrian and vehicular access from Huguenot. The Ft. George River inlet has shifted, closing off the channel to the north, connecting to Little Talbot State Park. The only accessible channel in this area is currently along Huguenot zone 12. Emergent shoals within the protected area during shorebird nesting season are monitored and measures to protect are in place using cones and an active steward or staff member daily during nesting season.

Generally, the shoals/sandbars are submerged at high tide, and exposed only at lower tides. These regions can re-submerge very quickly with rising tides, often creating swift currents, which can prove very dangerous to any unsuspecting park visitors. The intertidal shoal regions also double as designated critical habitat for shorebird foraging/roosting. Controls and management practices will be implemented in areas deemed as unsafe conditions for visitors, and areas that are prone to wildlife disturbance.

Ft. George Inlet is currently designated as a 'critical wildlife area' (CWA) within the park by the Florida Fish and Wildlife Conservation Commission (FWC). The CWA is included in the SMP and encompasses the interior dunes region between the Atlantic Ocean and the Ft. George River Inlet Basin. The CWA is actively managed following recommendations by FWC, and serves as critical nesting habitat for Wilson's Plovers, Willets, American Oystercatchers, Black Skimmers, Laughing Gulls, Sandwich Terns, Least Terns, and Royal Terns (Figure 2). Species, survey methods, and historical nesting data are addressed in further sections.

The Ft. George Inlet CWA was established on February 16, 1986, to protect nesting shorebirds (establishment order No. CWA-86-1). The CWA is active May 1$^{st}$ – August 31$^{st}$, however this area is closed year-round to park visitors because of its sensitive habitat. The CWA is designed to buffer declining shorebird nesting populations from human coastal recreation/disturbance. Re-defined state-wide CWA management and establishment criteria and/or regulations are in place and active management with signage, ropes and bollards define the areas. Due to certain nesting species earlier nesting dates (Table 1 & 2) the Ft. George Inlet CWA may be updated to include protection for those nesting species outside of the current posting dates following FWC recommendations and protocol. Enforcement by Park Staff and JSO officers takes place year round with penalties of fines and ejection from the park.

Huguenot SMP affected areas and emergent shoals adjacent to the park are federally designated (FL-35) as critical wintering habitat for the Piping plover (Amelia Isl.-Nassau Sound SMP 2003). This also includes the Nassau Sound region southward to the St.

Johns River, encompassing all intertidal regions, coastlines, and all areas used by the Piping plover (US Fish and Wildlife Service 2001).

Huguenot (Site ID 28) is also designated as an Important Bird Area (IBA) under the Florida Important Bird Area program. An IBA is considered critical habitat for various species, especially designated species that may only be endemic or dependent to Florida's rare or site specific habitat (Amelia Island—Nassau Sound SMP 2006).

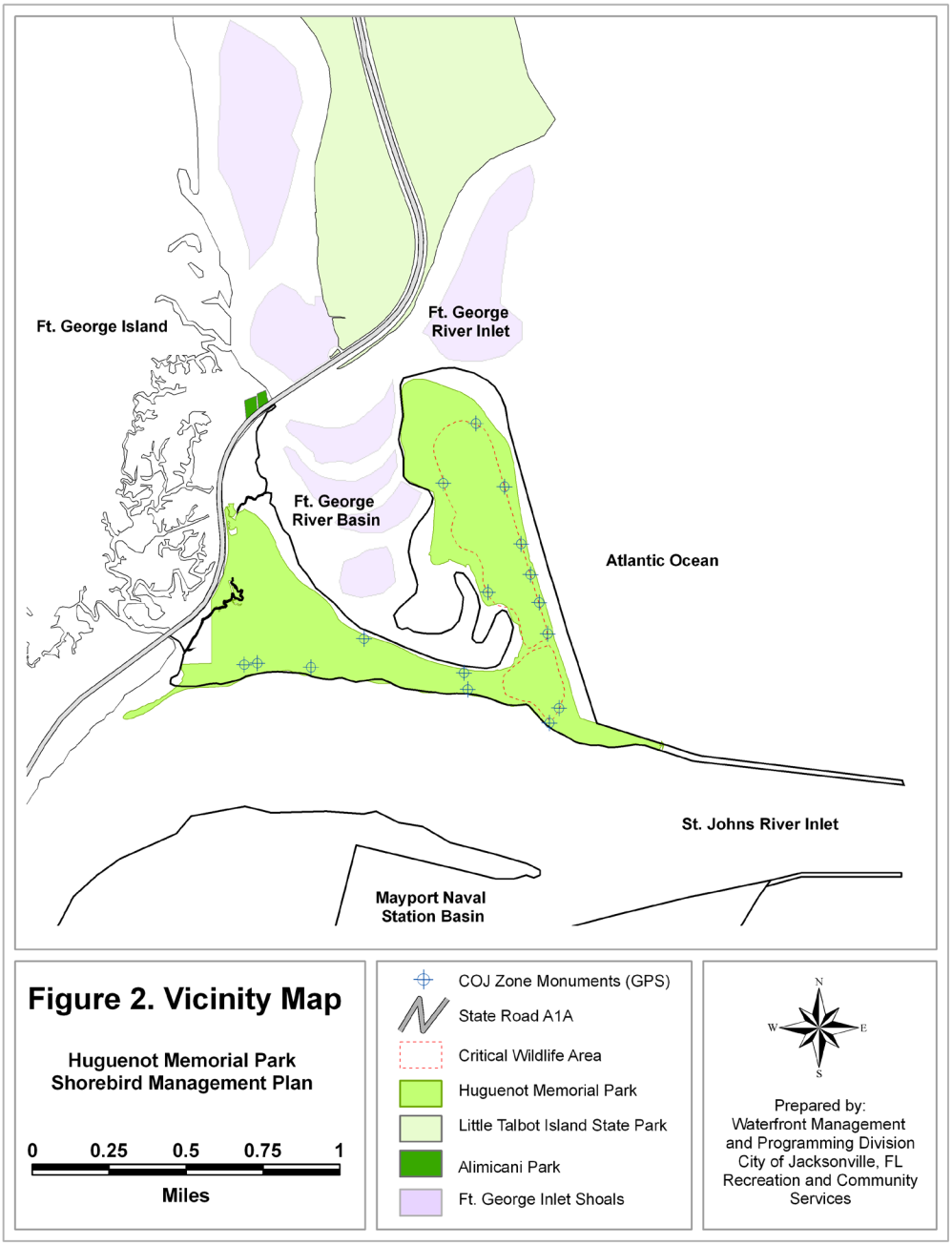


**Figure 2.** All immediate coastlines within Huguenot boundaries fall under the Huguenot SMP. Shoals and sand bars offshore are not included within the park boundaries. Huguenot boundaries are included in the Federal Timucuan Ecological Preserve. Map formatted from the Amelia Island-Nassau Sound SMP 2003.

***Disturbance Background to Shorebirds***

Coastal beaches, bays, and inlets along the Atlantic Flyway (Atlantic migration route) provide shorebirds with essential protein to build and store fat reserves necessary to reach their destinations and to survive each leg of their migration route. Fat reserves are required for energetic insurance for inclement weather conditions, breeding, and to survive long distance nonstop flights (Morrison et al. 2007). Species productivity and annual survival rates are often too low to sustain or increase population levels which also suggest that these condition-dependent rates are being affected globally (Baker et al. 2004). Investigations into declines have suggested that there are multiple potential factors involved, many of which are associated to human related impacts in coastal environments (Pfister et al. 1992, Niles & Humphrey, personal communication 2008).

Tides along the Atlantic coast limit the time periods that forging/roosting resources are available to shorebirds, which are active mainly during the daytime rather than at night. Most shorebirds forage in ebb to low tidal conditions when intertidal regions afford them access to polychaete worms, crabs, and small bivalves, benthic fauna, etc. (P. Leary, personal correspondence, 2006). Due to the tidal conditions along the Atlantic coast, they create an additional difficulty as these shorebirds must commute twice daily between preferred locations for foraging and roosting (Gils et al. 2006). This is important because it has been correlated that red knots, as well as other migratory shorebirds, prefer foraging areas which are related to roosting locations (Rogers et al. (2006)); thus, foraging areas without sufficient roosting locations in close proximity, may have little to no use by red knots, or other species. This is compelling because it underscores the importance of Huguenot Memorial Park and its adjacent areas, due to their unique combination of foraging and roosting habitat for red knots and other shorebirds.

To add to the tidal conditions, these coastal sites are also often used by humans for recreation, particularly during the spring and summer months which coincide with northern migration). Millions of humans visit coastal beaches annually to enjoy recreational opportunities that open beach habitats provide (Monz et al. 2004). However, interactions between shorebird flocks and humans often end in the flock displaying disturbed response (Figure 3).

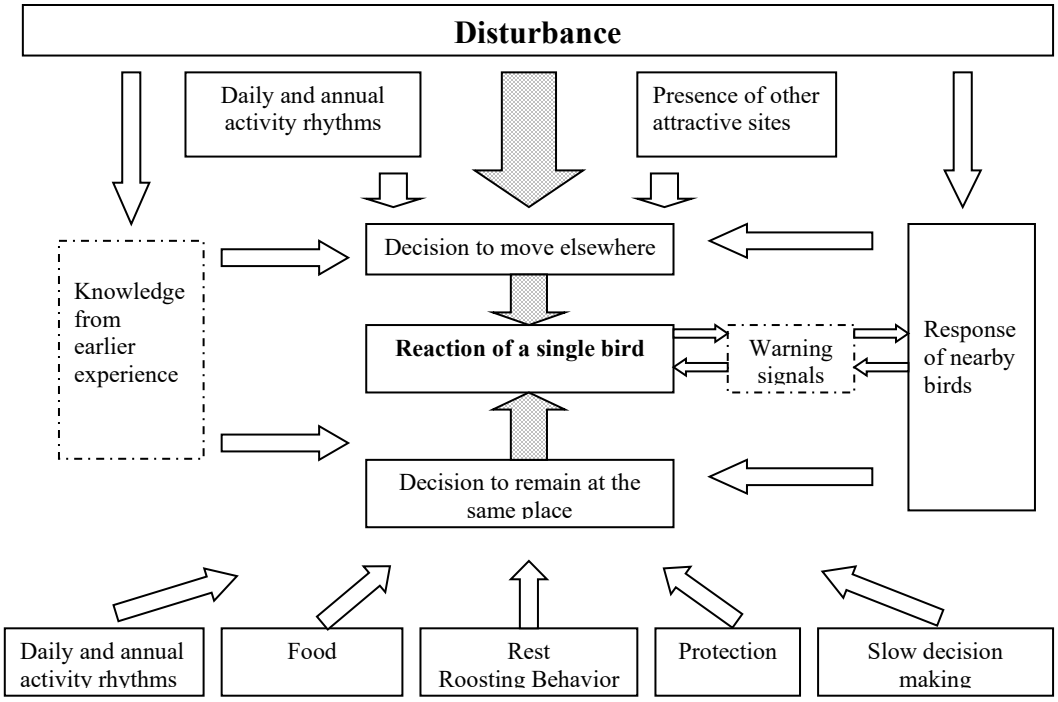


**Figure 3.** Potential factors leading to behavioral reactions when a shorebird is in proximity to human recreation in a coastal environment, disturbance impacts may drive species into premature migration, site abandonment, or even delay migration. Modified from Smit & Visser 1993.

This disturbance response is similar to that of a predator being in close proximity, thus shorebirds most likely perceive humans as predators (Yasué 2006). Yasué describes 'disturbance' as "a change in behavior of which normal roosting or foraging behavior is disrupted, inferring that disturbance levels can be induced by recreation levels.' Recreation levels may include, but not limited to, walkers, walkers with leashed and unleashed dogs, vehicles entering and leaving beach, surfing, swimming, sail boarding, kite surfing, boating, personal watercraft, and fishing.

Disturbance, such as swimmers entering and exiting the water, has shown to decrease and/or disrupt shorebird foraging behavior in between the water and human destinations, thus limiting net daily fat accrual (Burger 1995). Wader birds and beach nesting shorebirds (not migrating during studies) have also shown negative results of coastal recreation. Several occurrences were known to reduce species reproductivity by limiting food resources, and exposing nests or fledglings to high temperature and predation (Stolen 2003 and Burger 1991, 1994,1995).

Many species are also found to have different tolerances to human disturbance. This is observed by in some species by way of location abandonment and the amount of time before returning to the same location (Burger et al. 2007). Other studies have shown that

50% of species (including red knots) abundance levels were negatively decreased on days where there was high human visitations and vehicle presence (Pfister 1992). These areas were also noted to be preferred foraging and roosting habitats on less visited days. Four of seven species studied showed disturbance in response to human presence and recreation.

Another study showed that shorebirds species, by nature, prefer isolated locations, undisrupted habitats, and react less to humans on an opposite side of a fence (Lafferty 2006). Disturbance to foraging may have more detrimental effects during late afternoon, when shorebirds may be preparing for nocturnal migration. Inadequate foraging at this time period may delay migration or force a premature migration leg with limited reserves (Yasué 2004). This could be an additive effect which could contribute to late returns to staging areas like Delaware Bay (Figure 4).

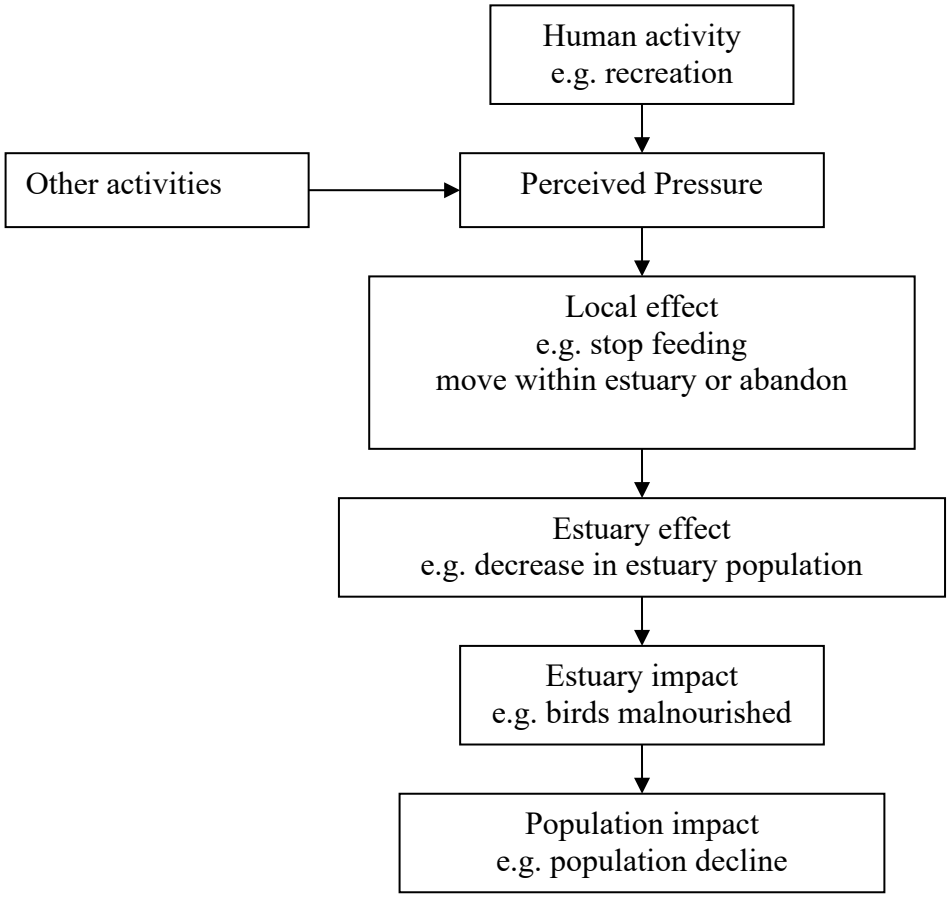


**Figure 4.** Warning signs of impacts of disturbance to shorebirds in coastal environments. Modified from Davidson & Rothwell 1993.

Minimizing human disturbance will aid shorebird recovery efforts. These efforts should be focused in currently high-use areas by shorebirds. Adaptive management is necessary to reduce impacts to declining species.

Disturbance to wildlife in Jacksonville Parks is prohibited by Duval County ordinance Sec. 28.818. Further, the Federal Migratory Bird Treaty Act of 1918, in combination with Federal and State species designations, also prohibit harm, which includes disturbance, to shorebirds at Huguenot (HMP 2007). Disturbance to any shorebird species under Federal and or State protection is defined as an 'incidental take,' whereas those responsible for any take of these shorebird species may be subject to fine penalties and/or prosecution by law.

It is the goal of COJ to manage the Huguenot's natural resources, while providing the public with safe, optimal recreational access; increase awareness of the park's natural resources; foster environmental stewardship; and, encourage deeper appreciation for the region's natural heritage. To accomplish these adaptive, proactive, educational objectives, management tools and protocols are necessary to minimize human disturbance impacts and to provide public educational information to reduce unintentional disturbances to shorebirds.

### ***Historical and Current Shorebird Use***

*Nesting Activities*

NE Florida and Duval County are historically popular regions for Florida's nesting shorebirds. Sharing this crucial region are the Talbot Islands and Amelia Island State Parks (including the Nassau Sound Bird Islands), both located to the north of Huguenot. This region offers critical un-developed coastal environments with adequate conditions for breeding and remote habitat for nesting shorebird species. Florida Audubon, USFWS, FWC, and other environmental agencies/organizations consider Huguenot as an important breeding site, both historically* and currently. In recent years, Huguenot's breeding site importance has increased as the Bird Islands to the north eroded and nesting populations shifted (P. Leary, personal communication, 2008).

Shorebird population declines in Florida are scientifically attributed to habitat loss and/or human disturbance during foraging or nesting. Human disturbance during incubation or the beginning stages of fledging can cause an adult to abandon its nest/young, leaving it/them vulnerable to severe temperature conditions and/or predation. With smaller breeding populations annually, a disturbance-free nesting cycle is critical to ensure successful productivity.

Historically, nesting's recorded at Huguenot represent some of the largest rookeries recorded in the state of Florida (HMP 2007). Significant occurrences include nesting by Laughing gulls (4,700 individuals, 1999), Royal terns (1,850 individuals, 1999), Gull-billed terns (20 nesting pairs, 1995), American oystercatchers, Wilson's plovers (no

formal count) and Black skimmers (2,026 individuals, 1985). As of the 2024 nesting season, numbers of nesting species in the park are 4425 Laughing Gulls, 2851 Royal Terns, 67 Sandwich Terns, 187 Least Terns, 10 American Oystercatchers, and approximately 28 Wilson's Plover.*

Each species has its own nesting/ habitat requirements, preferring to nest within large concentrated colonies or on the fringe or far from large groups. These standards increase variability of species at any given regional site and no two locations are alike. It is also important to note that if a species is observed during nesting season at a particular location, be particular to observe the behavior -- many species will forage at one location and nest at another (K. Ebersol, personal communication, 2006). Nesters at Huguenot take advantage of the centrally located CWA peninsula with the surrounding bodies of water offering a variety of food, isolated protection from predation, and necessary disturbance-free roosting. Breeding and nesting seasons are also slightly variable for each species as seen in Table 1.

**Table 1.** Colonial shorebird nesting seasons in NE Florida. Species listed here are typically observed within Huguenot Memorial Park. Nesting species and respective dates may vary in the region. This information will be readily used by park management in a proactive manner. Adapted from Sprandel 1999.

| Species | Florida Nesting/Breeding Season | | | Clutch Size | Incubation Period (Days) | Fledging Period (Days) |
|---|---|---|---|---|---|---|
| | Kale[a] | Stevenson[b] | Historical[c] | | | |
| **Black Skimmer *Rynchops niger* | May<>Sept | 11 May<>3 Aug | 21 Mar<>11 Sept | 4 (3-5) | 21<>23 | 23<>25 |
| **Gull-billed tern *Sterna nilotica* | May<>Jul | 3 May<>17 June | 4 May<>3 Aug | 2<>3 | 23 | 30 |
| **Laughing gull *Larus atricilla* | May<>Aug | 25 Apr-28 June | 14 Apr<>29 Aug | 3 | 20 | 35 |
| **Least tern *Sterna antillarum* | Apr<>Aug | 25 Apr<>6 Aug | 6 Apr<>3 Sept | 2 | 21 | 28 |
| **Royal tern *Sterna maxima* | Apr<>Aug | 16 May<>31 Jul | 1 May<>29 Aug | 1 | 21 | 28<>35 |
| **Sandwich tern *Sterna sandvicensis* | May<>Aug | 10 Apr<>31 Jul | 21Apr<>29 Aug | 1<>2 | 25 | 30<>35 |

** Known to have nested within Huguenot

[a]Robertson & Woolfenden (1992) Stevenson & Anderson (1994)

[b] Kale & Maehr (1990)

[c]Stevenson & Anderson (1994)

Typically, both colonial and solitary (Tables 1 and 2) nesting behaviors are observed within the established CWA, which is actively managed outside of nesting season to enhance nesting habitat. In more recent years, colonial nesters such as Royal Terns and Laughing Gulls, are the dominant nesting species at Huguenot. Nesting tends to take

* Sources referenced Sprandel 1999, Duval Audubon Society, & Florida Fish and Wildlife Service.

place within the northern point of the CWA bordered by the surrounding Ft. George Inlet, Inlet basin, and Atlantic Ocean. This area encompasses high and low dune topography, with most areas well protected from human disturbance. The high rate of nesting in this location is most likely due to the nearby foraging sites in close proximity to an isolated roosting location.

Gull-billed terns have historically nested within the CWA; however, remote locations prevent observing the success of current nesting. It can be assumed that they are nesting within the fringes of the Royal terns and Laughing gulls, as Gull-billed terns were observed in 2007 frequently carrying food into the nesting areas. However, Gull-billed terns have not been recorded nesting within the park since 2012.

Black Skimmers also prefer this general area and are often observed displaying nesting behaviors in the low lying, flat areas (sea level areas) just inside the CWA rope line. Dune frontage has accreted in recent years of this area; however, the area is still visible and in close proximity to recreational activities. Disturbance in this area has been witnessed by volunteers and is closely monitored. (COJ Non-nesting survey 2007).

Huguenot could also potentially provide future nesting habitat for Least terns because they are frequently seen foraging throughout Huguenot's coastline. However, none were observed displaying nesting behaviors in 2007. Least Terns began nesting in the park in 2018.

Summer storm systems have and more likely will continue to cause wash-overs of these lower lying CWA areas, thus preventing successful nesting by species like Least terns and Black skimmers. In 2007, the skimmers that appeared to be nesting within the CWA abandoned the area after such an event. The Bird Islands of the Nassau Sound also experienced wash-over events in 2007, assumed to prevent successful nesting of colonies of Least terns and Black skimmers (K. Ebersol, personal communication, 2008).

**Table 2.** Solitary nesting shorebirds typically observed at Huguenot. All three species historically nest within remote areas at Huguenot. Willets were observed displaying nesting behaviors during the 2007 survey. Willets are known to display semicolonial nesting behaviors (Loftin 1977).

| Species | Florida Nesting/Breeding Season | | | Fledging Period (Days) |
|---|---|---|---|---|
| | Stevenson[a] | Clutch Size | Incubation Period (Days) | |
| American Oystercatcher *Haematopus palliatus* | March<>July | 3 | 26 | 35 |
| Willet *Catoptrophorus semipalmatus* | 14 April<>10 June | 4 | 25 | Not Documented |
| Wilson's Plover *Charadrius wilsonia* | 14 March<>28 June | 3 (2-4) | 25 | 21 |

[a]Stevenson & Anderson (1994)

Solitary nesters (Table 2) prefer remote areas within the CWA and other isolated locations elsewhere in the park. These species may also be found nesting in outlying areas of colonial nesters.

American oystercatcher pairs (estimated to be three to five pairs) are often observed foraging in the inlet intertidal regions and entering CWA dune areas in zones 13 and 14 during nesting season (Figure 5) and have been successful in these areas of the park, rearing several young to flight capable over the years. Other solitary nesters such as the Willet have been observed displaying nesting behavior in passive areas bordering the St. Johns River and Ft. George River Basin within zones 1, 2, 13 and 14 (Figure 5).

Black skimmers, Least terns, and American oystercatchers are listed as part of Huguenot's designated species and are protected by State and Federal law due to their subsequent declining numbers.

Huguenot is regularly affected by several weather related erosional events, which impacted the entire Atlantic coastline frontal dune system. An area significantly affected was the north eastern CWA, lowering a good portion of dunes to slightly higher than sea level. This had little effect on nesting behavior, but did permit large numbers of unfledged Royal terns and Laughing gulls to enter the frontal beach (recreation zone 11). COJ, with recommendations by USFWS and FWC, temporarily closed a portion of the beach after several fledglings where found run over in the area.

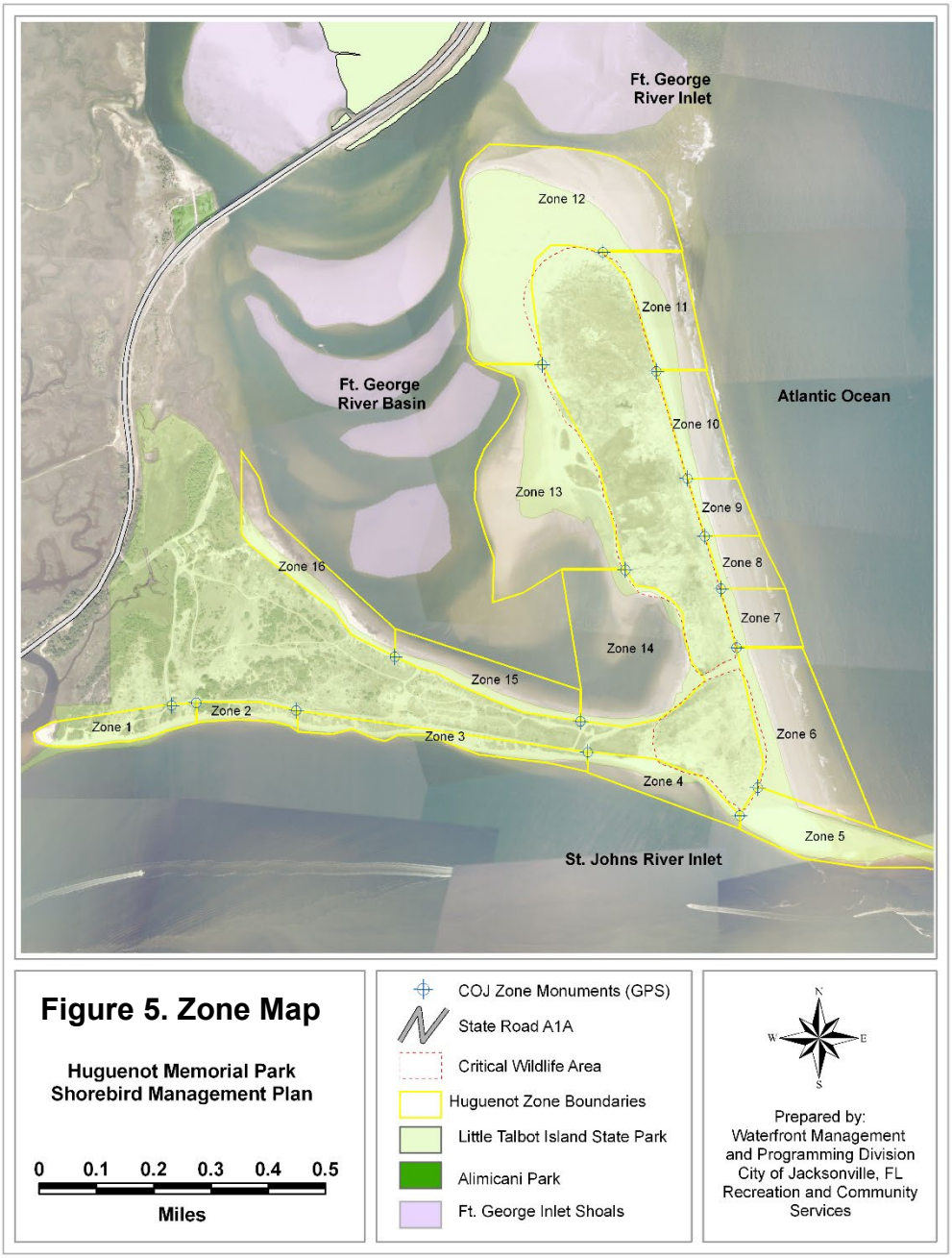


**Figure 5.** Zone monuments (GPS using Leica GS50) were placed according to the existing park zoning plan to aide data collection by volunteers. Zone 11 was closed during the 2007 nesting season due to an unanticipated amount of unprotected Royal terns and Laughing gull fledglings present on the open recreation beach. Aerial photo dated 2006.

*Roosting, Migratory, and Over-wintering Activities*

In addition to providing nesting habitat, Huguenot is also an important stopover site for migratory shorebirds and passerines. Winter and spring migrations bring many non-resident birds to the region and finding optimal foraging habitat during migration is a necessity for their survival. The beach and intertidal areas within Huguenot provide essential foraging habitat for shorebirds, while the coastal strand, mudflats, shoals, and undeveloped portions of the site provide cover and roosting habitat near foraging sites.

Resting and foraging birds primarily congregate along the beach below the mean high water line and on the emergent shoals within the Ft. George inlet and inlet basin. Different portions of the park are in use during any given time by different species; however zone 5 and zones 10 through 14 are in use, most often. Intertidal areas in and around Huguenot provide a number of species with different prey and therefore foraging sites most often in close proximity to roosting sites.

Huguenot provides different intertidal foraging communities which shorebirds can be separated into two primary groups; front beach species and back beach species, with some spillover in between on extreme tides or weather events.

## Back Beach Species

Back beach species forage for polychaete worms, crabs, and small bivalves in the intertidal mud flats and muddy coastlines from zones 13 to 16 (Figure 5). During the 2023 – 2024 surveys, the maximum counts of back beach species included, but are not limited to American oystercatcher (13), Least sandpiper (210), Western sandpiper (79), Semipalmated sandpiper (75), Sanderling (94), Ruddy turnstone (68) Dunlin (106), Whimbrel (3), Marbled godwit (1), Short-billed dowitcher (68), Piping plover (11), Semipalmated plover (326), Wilson's plover (50), Black-bellied plover (45) and a variety of wader and diving duck species (Table 3).

Many of these species migrate to the Arctic Circle or New England shorelines to breed/nest (excluding wader species and resident shorebirds - Table 3) and most of which with known trends are in serious population decline. Gulls and Terns may be found loafing in these areas but not regularly foraging with the exception of Gull-billed terns, Least terns, and Black Skimmers, as they frequently forage in these zones if not the entire park as they feed from the air. Sporadic foraging and roosting sites for Red knots are also observed in this region.

During the COJ shorebird surveys, the salt flat area within zone 13 (adjacent to an area known as Hog Hill) was the most prevalent roosting site by back beach species. A large intertidal peninsula connects from this area outward into the inlet basin running through zone 14 almost reaching zone 15 at low tide. This roost site provides shelter from winds on the Atlantic coastline, and doubles as a very bountiful foraging site as the tide recedes.

The close proximity of roosting site and foraging site is ideal; however this site is outside the established CWA and has been observed to be a chronic disturbance area. Disturbance is generally unintentional, but has been observed even during low visitation. Shorebirds, especially sandpipers (including listed Piping plover) roost in tire ruts, seeming invisible to anyone unsuspecting. The area has benefitted from marked protection measures covered in the HMP (bollards) and in the strategies and goals section. Zones 13 and 14 have both been permanently closed to driving due to dune formation from storms and natural occurrence since 2017

## Front Beach Species

Front beach habitat includes most, if not all, sandy beach habitat in the park. These areas include zones 1 through 12, with 12 being a border zone where the two groups often mix. These species forage in and along the surf, wrack lines, and intertidal sand flats for small fish, polychaete worms, and small bivalves, etc. 2023-2024 maximum counts for frontal beach species, within Huguenot boundaries include, but are not limited to, Red knot (146), Black skimmer (1517), Brown pelican (452), Sanderling (94), Ruddy turnstone (68), Willet (68), and various species of Terns/Gulls (including resident birds)(Table 3).

Sanderlings are more often found as frontal species along the surf. Ruddy turnstones are adaptive to both regions of the park (sufficient at foraging along wrack lines, intertidal surf areas, and mud flats). Semipalmated plovers and Piping plovers prefer back beach regions; however, may exhibit foraging behavior in front beach regions during extreme low tides and/or times when debris/Sargassum is prevalent on the front beach.

Front beach species are found within zones most often used for coastal recreation (6-12 Figure 5). Thus, human disturbance interactions are understood to occur. Many of the species that forage in these zones display adaptive behaviors to approaching vehicles and pedestrians, either by walking, or flying, to a safer distance or foraging in areas in less use by humans (excluding Red knots). Fo
raging in the surf or at the waterline with the outgoing tide becomes increasingly beneficial at Huguenot because the open beach habitat is increased, providing additional buffer space from human disturbance.

Additionally, the park overall species diversity/abundance that tends to roost inside the CWA or in areas away from humans plummets at the onset of Royal tern and Laughing gull nesting season (Table 1). This time frame also coincides with peak spring and summer human visitation which seemingly does not lower abundance of the Royal terns and Laughing gulls in the park. This is most likely due to the abundant nesting habitat and safety buffer provided by the CWA.*

Increased human visitation, however, is known to decrease shorebird abundance in other parks on the Atlantic Coast (Pfister, et al.) and the time frame also coincides with the

migratory time tables of the disturbance prone Red knot. * † In the case of Huguenot, high seasonal human visitation accompanied by high abundance of nesting species does limit use of preferred foraging/staging areas of transient non-nesting species.

Table 3 Shorebird, Wader, Waterfowl, and Bird of Prey species documented within the boundaries of Huguenot Memorial Park from January 2023 to October 2024. The 'Maximum Count' column reflects the highest count of each species based on weekly surveys conducted by the Parks Naturalist Specialist and some data collected from eBird. Species status and seasonal occurrence are indicated by colors and symbols; please refer to the keys below. Note that this chart does not fully represent all bird species documented in the park.

| 20 Shorebird/Wader/Waterfowl/Bird of Prey Documented at Huguenot | BBL Code | Seasonal Occurrence at Huguenot | Survey Maximum Count | Max Count Date | Common Loafing/Foraging Zones at Huguenot |
|---|---|---|---|---|---|
| American Avocet | AMAV | F<>S | 1 | 10/24/2024 | 13<>14 |
| American Oystercatcher*♦(WL) | AMOY | B + R | 13 | 9/6/2024 | 12<>16 |
| Bald Eagle | BAEA | F<>S | 2 | 10/14/2024 | 2<>16 |
| Black Skimmer*♦ | BLSK | B + R | 1517 | 12/15/2023 | 2<>5, 11<>15 |
| Black-bellied Plover | BBPL | R | 45 | 2/2/2023 | 13<>15 |
| Brown Pelican | BRPE | B + R | 452 | 4/25/2024 | 5,12<>14 |
| Caspian Tern | CATE | S<>F | 93 | 9/20/2023 | 5,13,14 |
| Common Tern | COTE | S<>F | 73 | 9/6/2024 | 2<>5, 10<>14 |
| Double Crested Cormorant | DCCO | R | 322 | 3/24/2023 | 11<>16 |
| Dunlin | DUNL | W | 106 | 3/24/2023 | 13<>15 |
| Forster's Tern | FOTE | R | 102 | 2/8/2024 | 5, 13<>14 |
| Glaucous Gull | GLGU | Rare | 1 | 12/23/2023 | 5 |
| Great Blue Heron | GBHE | R | 7 | 8/10/2023 | 2<>5, 12<>16 |
| Great Egret | GREG | R | 17 | 8/30/2024 | 2<>5, 12<>17 |
| Great Black-backed Gull | GBBG | F<>S | 7 | 8/30/2024 | 5,12 |
| Gull-billed Tern | GBTE | S<>F | 3 | 8/15/2024 | 13<>15 |
| Herring Gull | HEGU | R | 86 | 12/30/2024 | 5<>6,11<>13 |
| Horned Grebe(WL) | HOGR | W | 2 | 12/15/2023 | 13<>16 |
| Laughing Gull | LAGU | B + R | 6093 | 6/8/2023 | 2<>16 |
| Least Sandpiper | LESA | F<>S | 210 | 2/8/2024 | 13<>16 |
| Least Tern*♦(WL) | LETE | B + S<>F | 187 | 6/24/2024 | 2<>5,12<>16 |
| Lesser Black-backed Gull | LBBG | F<>S | 81 | 12/15/2024 | 2<>6, 12<>14 |
| Little Blue Heron*(WL) | LBHE | Rare | 1 | 11/16/2023 | 13<>16 |
| Marbled Godwit♦(WL) | MAGO | Rare | 1 | 9/13/2024 | 13<>14 |
| Osprey* | OSPR | R | 10 | 9/13/2024 | 2<>16 |
| Pectoral Sandpiper♦(WL) | PESA | Rare | 2 | 9/22/2024 | 13<>16 |
| Northern Gannet | NOGA | W | 1 | 3/14/2024 | 5<>12 |
| Piping Plover*†♦ (WL) | PIPL | F<>S | 11 | 8/30/2024 | 6,11<>16 |
| Red Knot (Rufa)*†♦ | REKN | M | 146 | 4/20/24 | 6, 11<>13 |
| Reddish Egret*♦(WL) | REEG | S<>F | 3 | 9/27/2023 | 12<>15 |
| Ring-Billed Gull | RBGU | R | 22 | 11/30/2023 | 2<>15 |
| Royal Tern | ROYT | B + R | 4582 | 6/27/2024 | 2<>13 |
| Ruddy Turnstone | RUTU | R | 68 | 4/11/2024 | 2<>15 |
| Sanderling | SAND | R | 94 | 4/11/2024 | 2<>15 |
| Sandwich Tern | SATE | B + R | 375 | 7/27/2023 | 5,11<>14 |
| Semipalmated Plover | SEPL | R | 326 | 9/27/2023 | 6<>7, 12<>16 |
| Semipalmated Sandpiper (WL) | SESA | M | 75 | 5/27/2023 | 13<>15 |
| Short-billed Dowitcher♦(WL) | SBDO | F<>S | 68 | 2/8/2024 | 13<>14 |
| Western Sandpiper | WESA | F<>S | 79 | 8/30/2024 | 13<>15 |
| Whimbrel | WHIM | F<>S | 3 | 5/10/2024 | 13<>15 |
| Willet♦(WL) | WILL | B + R | 33 | 4/13/2023 | 2<>16 |
| Wilson's Plover♦ | WIPL | B + R | 50 | 6/18/2024 | 13<>15 |
| Wood Stork*†(WL) | WOST | F<>S | 6 | 10/14/2023 | 12<>16 |

*State-listed species
† Federally-listed species
♦ Birds of Conservation Concern 2021

**Seasonal Occurrence at Huguenot:**

**Rare –** Documented, but rare
**B –** Breeding, nesting species
**R** – year round resident
**S<>F** – present spring through fall
**F<>S** – present fall through spring
**M** – Spring & Fall migration
**W –** present during winter

**2016 State of North America's Birds:**
https://www.stateofthebirds.org/2016/resources/species-assessments/

(WL)– Included on the Watch List based on score of 14 or higher, or with a concern score of 13 and a steeply declining population trend—these are the species most at risk of extinction without significant conservation actions to reverse declines and reduce threats.

**(Red) High Conservation Concern 14-20**–species in this category are declining rapidly, have very small populations or limited ranges, and face major conservation threats.

**(Orange) Moderate Conservation Concern 9-13** – this category includes those species that are also declining but at a slower rate than those in the red category.

* See adaptive management and temporary closure procedures section for nesting and migratory shorebirds.
† See species of focus section.

***Huguenot Migratory Species of Focus*** *

*Red Knot (Calidris canutus rufa)*

Although most shorebird species are in serious population declines, the Red knot is at the forefront with as little as 17,000 remaining of the subspecies once thought to have a sustaining population of over 150,000 (Niles, et al. 2007). Red knots are currently a candidate to be federally listed as an endangered species (Figure 6) and are well known for their lengthy 30,000km annual migration trek.

The Red knot, like many other species, depends on a series of strategic locales or coastal staging areas for rest and resources during migration (Harrington 1996). In the case of the subspecies, *Calidris canutus rufa*, the entire population visits the staging area in Delaware Bay, MD, to refuel, rest, and store energy for the next leg of the journey. They were listed as Threatened under the ESA in 2015.

Huguenot and the Ft. George Inlet, is not as well-known as regions like Delaware Bay. However, the region is well-documented as a strategic stopover site along migration routes for species like the threatened/declining population of Red knots.

* Emphasis is placed on endangered or threatened species, endemic species, species that are restricted to certain habitats, and species that congregate in large numbers, such as nesting shorebirds.

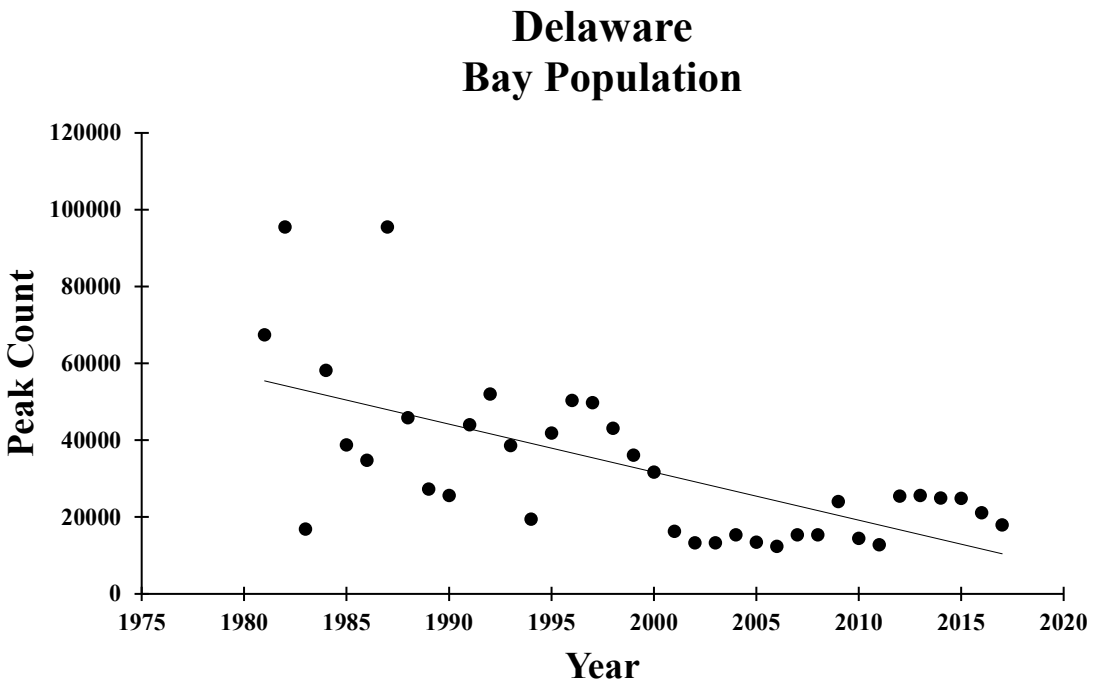


**Figure 6.** Peak Population counts of the Western Hemisphere Red Knot *Calidris canutus rufa* from aerial and ground surveys in Delaware Bay from spring 1981-2017. Count data taken from USFW 2019.

https://ecos.fws.gov/docs/recovery_plan/20190409%20Red%20Knot%20Recovery%20Outline%20final%20signed.pdf

Two Red knot wintering populations migrate through the Ft. George Inlet/Huguenot region each year. One is a lesser known population that winters along the west Gulf coast of Florida, and the other a well-known group of South American wintering populations (Figures 6 and 7). In more recent years, a possible third population has been documented (500+) to be seemingly wintering within the very Northeast Florida region (Niles 2008, personal communication).

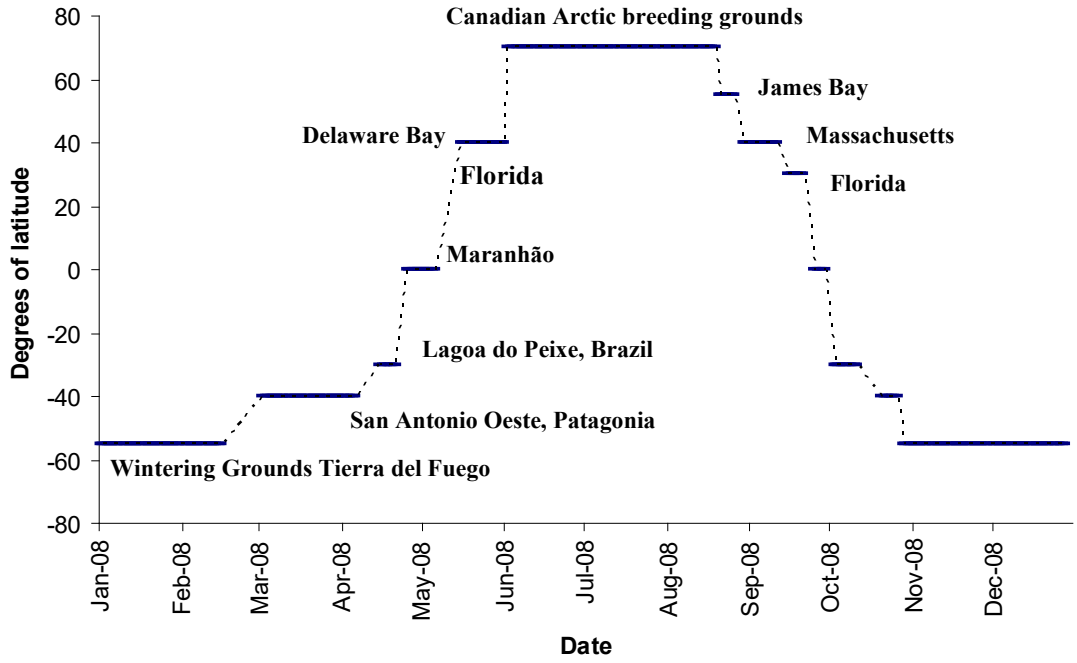


**Figure 7.** The annual migration tract of the Western Hemisphere Red knot (*Calidris canutus rufa*). Solid lines indicate time spent in a specific staging, breeding, or wintering areas. Dotted lines represent migrational periods between largely used sites. It is important to note that during migrational periods smaller but important staging areas are in use, areas like Huguenot. Adapted from Niles et al 2007.

Sightings indicate that most, if not all, of the entire Gulf coast population migrates through Huguenot and the Ft. George Inlet each year. Analysis further indicates that Huguenot and the Ft. George Inlet are among the first land falls available for the South American population, including those that might be forced out of flight during inclement weather along the route to Delaware Bay (Niles 2008, personal communication).

Generally, at the onset of ebb tide, Red knots will begin to forage at the first exposed intertidal areas in zone 12. At Huguenot, they are in search of large deposits of *Donax variabilis*, a small bivalve often referred to as 'Florida Coquina,' common in areas of the park and shoals where they forage (P. Leary, 2006 personal communication). As the tide continues to fall, the flock will exploit this area further and further out until the shoals in the adjacent inlet become exposed. During the 2007 survey, a small group (< 50) was observed frequently foraging in zone 6 near the St. Johns River jetty at the onset of ebb tide and later joining groups at larger exposed areas northward in the Ft. George Inlet.

*Piping Plover (Charadrius melodus)*

Winter use of the region's shoals and islands, Little Talbot Island, and Huguenot by the federally threatened Piping plover has been well-documented. The 2007 Preliminary estimate for the Atlantic coast population is just under 2000 individuals (Figure 8). Banded Piping plovers that over-winter in the region originate primarily from breeding populations in the Great Lakes and Canadian Maritime Provinces (Amelia Island SMP).

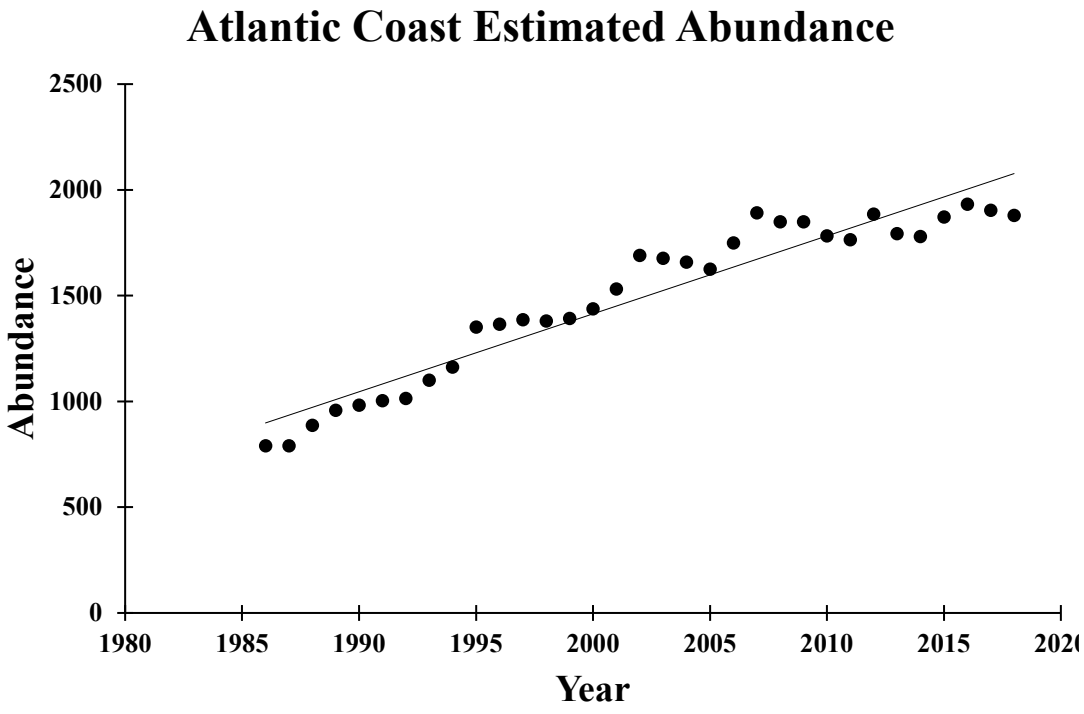


**Figure 8.** Atlantic coast population abundance of the federally listed Threatened Piping plover (*Charadrius melodus*) from 1986 to 2018. The trendline depicts a slight increase in population over a few years; the current goal is modestly set at 2000 individuals. Population recovery is heavily dependent on public awareness, habitat conservation, and resources protection. Huguenot is designated Piping plover habitat with several sightings each winter. Count data taken from USWF 1986-2018.

https://www.fws.gov/sites/default/files/documents/news-attached-files/Abundance-Productivity-2018-Update_final-with-tables.pdf

The preferred, most frequented habitats at Huguenot for over-wintering and migratory Piping plovers are the back beach regions, especially those areas where the intertidal flats converge with the Ft. George Inlet. These plovers routinely begin foraging in portions of zone 12 at the start of ebb tide, then work the intertidal flats/coastlines from zone 12 to 16

as the tide continues fall out (P. Leary, personal communication and 2007 Huguenot SB Survey).

Huguenot SMP affected areas are of a federally designated unit (FL-35) for critical wintering habitat for the Piping plover (Amelia Isl.-Nassau Sound SMP 2003). This includes the Nassau Sound region southward to the St. Johns River, encompassing all intertidal regions, coastlines, and all areas used by the Piping plover (US Fish and Wildlife Service 2001). The designation recognizes the significance of these areas to over wintering populations of this endangered shorebird, and provides for review of any actions that may affect these areas, and are authorized, funded, or carried out by a Federal Agency (U.S. Fish and Wildlife Service 2001).

## *Adaptive Management Goals and Strategies*

*(Non- ranking order)*

1) **Goal**: Protect nesting birds in the dune center of the park from disturbance.
   **Strategies**:
   - This CWA area is currently closed to the public.
     - COJ has realigned this boundary. They have included additional signage and roping off the remaining Atlantic dune line, pursuant of obtaining permission or required permits.
     - The permanent bollards will be posted with DNE signage year round. Additional CWA specific signage will be added when the CWA is active during the nesting season, currently May 1st-August 31st. https://myfwc.com/conservation/terrestrial/cwa/fort-george/
     - Violators of the CWA are ejected from the park and reported to FWC LE.
   - COJ Management and Biological Staff work with local user groups (no longer active) to promote user awareness.
     - Local bird steward organization volunteers are regularly scheduled to provide education to park users during nesting season along with COJ Biological staff and interns.
   - Manage vegetation growing in the historical colony nesting site for Terns, zone 12.
     - Work with FWC and Florida Forest Service to conduct prescribed burns to remove unwanted vegetation that impedes nesting Terns.
     - Apply herbicide to invasive vegetation throughout CWA nesting sites.
     - Pursue additional measures to enhance sandy/shelly nesting habitat preferred by nesting Terns such as but not limited to, Sea Oat planting, dune fencing and renourishment efforts along with necessary permits.
   - Work with FWC to decrease disturbance to low lying nesting areas (Black skimmer nesting colonies, zone 12)
     - Options may include, but not limited to:

- Dune re-nourishment, pursuant of permission and or permit. Dune re-nourishment shall be limited only to those areas that will not adversely affect other nesting or potentially nesting shorebird species..

- Permitted on-beach events near nesting habitat are coordinated through park management and biological staff. Events are limited to non-nesting seasons or areas away from nesting CWA areas as determined to be potential disturbance threats.

2) **Goal**: Provide a beachfront area where young flightless birds will be safe from vehicular traffic and human disturbance.
**Strategies:**
   - Temporary close areas as needed when flightless juveniles are observed adjacent to driving areas.
   - COJ, State, and Federal agencies are to determine a minimum threshold of young flightless birds in adjacent nesting areas to warrant a closure.
   - Expand temporary closure areas should young flightless birds inundate areas outside of the closure or suspected to do so.
   - COJ will establish dates of temporary closures and adjust as needed.
   - Other strategies for sharing the shoreline through educational means may be applied as agreed upon by the agencies listed above.
     - In 2024 the "share the shoreline" initiative took place with educating the public of flightless juveniles in common areas.
     - Outreach through signage at the entrance
     - Park Rangers talking to each customer entering the park to educate.
     - A coned off area of 1736 linear feet in zones nine through ten with stewards, park staff and volunteers educating.
     - A speed awareness sign at the only entry point to the oceanfront.
     - Aggressive enforcement of the speed limits by JSO and FWC officers.

3) **Goal**: Eliminate disturbance of wintering and migratory birds on bayside mudflats and destruction of mudflat habitat by vehicles.
**Strategy:**
   - A bollard system has been implemented around the inlet from zone 15 (family beach) to the southwest end of zone 12 to restrict driving.
   - Zones 13 & 14 were both closed to vehicle traffic after dune shifts caused by Hurricanes Matthew and Irma on 11/2017. Bollards and signs were installed to prevent vehicles from entering these areas.
   - Bollard placement will be coordinated by COJ biological staff, State, and Federal resource protection agencies.
     - Alternative methods may be implemented in the future to protect these areas following success assessment of the bollards.

- Kite surfing zones could be established by biological staff, local user groups, and park management to minimize disturbance to sensitive foraging and roosting sites.
- Bollard system using PVC, rope and signs were installed in 2009
- Bollard system with PVC is a natural predator perch, preventing predator invitation to already sensitive areas.

4) **Goal:** Protect nesting, roosting, and foraging birds from disturbance due to presence of dogs.
   **Strategy:**
   - Dogs are restricted to the campground area.
   - Campers are notified at check-in and signage is posted at entry points to the shoreline and park rules literature is available upon request. Penalties may include fines and or park expulsion. An additional charge for camping pets was implemented in 2010 when dog access to the park took place.

5) **Goal:** Create undisturbed areas for wintering/migrating birds to forage and/or loaf on the sandy beach.
   **Strategy:** (Options)
   - Cones are placed in areas to notify a temporary tidal closure in areas sustaining foraging by migrational species (i.e., Red knots).
     - If implemented, cones with signage is placed at the onset of an out going tide and then broken down before and incoming tide.
     - Placement of signage and outreach is conducted by park staff.
     - For wintering species such as the Piping plover signage can be posted on inlet bollards.
   - Alternatively, a more permanent multifunction sign system could be implemented to reduce labor requirements (Figure 9).


**Figure 9.** Rotation-multifunctional sign to post changing/seasonal information. Custom signage such as this is useful in notifying park visitors of seasonal occurrences such as, migrating shorebirds, marine turtle season, driving regulations, tidal/swimming conditions, etc.

6) **Goal:** Allow migrating birds on inlet shoals to forage undisturbed
**Strategy:**
   - Eliminate access to shoals by enforcing no swimming/wading policy, employing sandwich boards and/or rotation-multifunction signage system when Red knots are present.
   - Increased law enforcement, resource enforcement, staff presence, and bird steward volunteers conducting educational outreach.
   - Periodic local resource protection presence is also necessary. Select dates will be coordinated.
   - Permitted on-beach events should not coincide with Red knot migration time frames, or should be planned in areas away from Red knot foraging sites.

7) **Goal:** Ensuring protections are sufficient on busy, warm-weather holiday weekends.
**Strategy:**
   - Increased law enforcement and staff presence, bird steward volunteers conducting educational outreach inside and outside of the park.

8) **Goal:** Measure and observe success of strategies and continue shorebird monitoring.
**Strategy:**
   - COJ biological staff conduct surveys weekly to COJ shorebird survey standards (protocols and forms, see appendix).
   - COJ biological staff update database and files as surveys come in.
   - Work with local bird steward organization to organize volunteers and provide training to new volunteers.
   - COJ biological staff will project quarterly trends quarterly to assess success.

9) **Goal:** Provide funding for outreach materials, sustainable signage, in park educational kiosks, outreach events, and additional moneys for bollard system.
**Strategy:**
   - COJ will work with Audubon, non-profits, and other bird steward organizations for funding resources.
   - Work with COJ planners and COJ grant coordinators to find grant programs and apply where applicable.
   - Work with COJ Park's Partners to find and/or seek funding for shorebirds or a potential regional shorebird partnership.

10) **Goal:** Provide community outreach.
**Strategy:**
   - COJ will work with Audubon to provide public outreach inside and outside the park.
   - COJ Park's Naturalists will continue to provide monthly programs that include shorebird awareness.

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# Appendix

***Protocols for temporary closures due to nesting shorebirds***

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. That will require COJ to establish temporary zones where certain beach activities will be prohibited.

Process for establishing the restricted zones for nesting species:

1. Each year COJ will establish a Shorebird Management Team, which will consist of biologists from COJ, FWC, USF&W, Little Talbot Island State Park, Audubon and the park manager.

2. The management team will at meet at Huguenot or virtually via video conference once the weekly shorebird monitoring team has detected that species have arrived and are nesting.

3. COJ will monitor the nesting sites daily to detect the presence of flightless juveniles.

4. The management team will then discuss measures to protect the flightless birds to include establishing a temporary zone where beach driving will be restricted or an educational component "share the shoreline" initiative is agreed upon.

5. COJ staff will monitor the zone to document any fatalities within the zone and for evidence that the juvenile birds are able to fly.

6. The management team will then meet on site again to determine if it is safe for wildlife to remove the restrictions.

7. Seasonal and annual evaluation and review of management strategies.

**Protocols for temporary closures due to imperiled shorebird and seabird species:**

1. Each year COJ will establish a Shorebird Management Team, which will consist of biologists from COJ, FWC, USF&W, Little Talbot Island State Park and the park manager.

2. Once the shorebird monitoring team has determined that foraging 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 or virtually via video conference to establish temporarily restricted areas. Coordination through FWC without a shorebird meeting may also be used to determine protection measures.

3. Once the zones have been established, COJ staff will use cones or sandwich boards or other measures (public notices, hand-out notices) to alert patrons that those areas are temporarily restricted from swimming, wading and kite surfing.

4. These restricted zones only occur during low tides when the sandy shoals are exposed and are being used by shorebirds for foraging.

5. 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.

6. The management team will reconvene once the shorebird monitors have reported that the migratory birds have departed Huguenot. Or the park biological staff and manager will meet with FWC to report.

7. Seasonal and annual evaluation and review of management strategies.
8. Annual report of REKN movements, populations, frequency of visitation (by habitat).

***Huguenot Shorebird Surveys***

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.

The State Park's staff has diligently documented several years of nesting activities and cooperatively managed their nesting areas with FWC.

Through their efforts they have compiled enough data to locate the specific critical wildlife areas (CWA) that nesting colonial shorebirds use every nesting season down to the exact position. Nesting shorebirds are generally observed in exact locations as in previous recorded years.

Their efforts, methods, and survey protocols are considered the leading example for the Florida State Park System. The FPS is now working with the Florida Fish and Wildlife Conservation Commission to create a new statewide initiative to identify these specific seasonal locations and to create a Florida informational data base for the State of Florida. The database is accessible through the FWC website, and will be used to analyze their data. Huguenot Memorial Park is a crucial shorebird piece to the Northeast Florida region of Florida, and will continue to benefit the work and efforts of the neighboring State Parks as Huguenot participates in an annual survey. Preservation Parks Jacksonville

will adapt to survey methods, protocols, and data collections used by Talbot Islands and Amelia State Parks, and FWC to aide in goals of officially determining, the regions true role in migratory shorebird activity. Both of which based their protocols from the ISS guidelines, to standardize data collected from Florida. The Huguenot Memorial Park Shorebird Survey Plan will be implemented to aid the State, Federal, and International efforts to survey, monitor, and protect the declining numbers of shorebird species.

The Manomet Center for Conservation Sciences acknowledges the problem of not only habitat depletion, but through surveys has documented the decline of various species of shorebirds. They have created volunteer programs that span the globe to protect, conserve, and monitor many coastal migratory species of shorebird. Brian Harrington created the International Shorebird Survey (ISS) in 1979 and a newer initiative called the Program for Regional and International Shorebird Monitoring (PRISM). Each program depends on networks of volunteers to survey and monitor beaches for species of shorebirds, and submit data sheets to be entered into a data base for statistical analysis. The ISS guidelines for shorebird monitoring are considered the "standard" to which most survey protocols are derived from. Information about Huguenot Memorial Park's shorebird activities and habitat has been submitted to the ISS in the past by local shorebird enthusiasts, and the ISS recognizes the Park as critical habitat for many species. Volunteers in the past have worked under ISS on their own, to survey the park, however historically there has never been a permanent survey in place to assess the trends and numbers of species that depend on habitat in and around the park until a Park's Naturalist Specialist was hired as COJ Biological staff to monitor park wildlife in 2010. Confirm year?

The FPS uses a successful volunteer program to collect the necessary field data, and enters the data onto the FWC online data base. Volunteers survey the beaches for non-breeding shorebirds once a week to record the number of birds (direct count or estimate), species, locations, time and date, weather and tidal conditions, and the activity (feeding, loafing, etc) all year round, except for the months of March and September, which are considered survey origination months (minimum shorebird activity, allowing survey coordinators to organize all the data collected). The year is broken up into two seasons "non-breeding" (winter) and "breeding" (summer) seasons, though the "non-breeders are still counted during breeding season and may not be breeding in the specific park, but maybe breeding within another park in the region. Researchers at Talbot Island State Park believe different species often nest a HMP but are recorded displaying non-breeding behaviors (feeding, loafing, etc) at Little Talbot Island and is true for this to be observed in an opposite fashion, making it extremely important that HMP be surveyed for shorebird activity to confirm situations existing within the region.

Huguenot participates in the Timucuan Shorebird Partnership which meets twice annually for a pre-season and a post season wrap-up. It is comprised of all the local State Parks. Huguenot follows their survey methods.

***Nesting Surveys***

During the "breeding" season (March 1 through September 1), the second half of the survey is vamped up to monitor and count solitary and colonial shorebird nesting/ breeding activities. Colony nesting shorebirds gather together in small or large groups to breed and nest, different groups of species have been known to mingle together for the safety within numbers and can be usually found near or in the same location each year. Solitary nesting shorebirds pair in partnership and nest separately from their own species, but can be found nesting within colonies. Their nests vary in location from year to year and often difficult to survey. All nesting activity will be tracked by volunteers COJ biological staff and FWC using a survey grade global positioning system, which will enable accurate data to be entered into GIS software for future studies. FWC recognizes 20 different species that nest in Florida and only 6 of them are considered solitary nesting species.

Huguenot nesting surveys will not enter the CWA, unless specific biological staff is properly permitted, however the overall goal is to continue passive management of this area during nesting season.
The nesting survey will be to monitor and record information on the nesting and breeding shorebirds once every week following a set route, where biological staff will stay out of the posted nesting signs and record the necessary data, unless specific biological staff is properly permitted, (again following the rules and guidelines written by the FWC for nesting shorebirds). FWC prefers that the surveys of nesting and breeding shorebird to be held in the cooler morning hours, so if the nesting adults feel disturbed and leave the nest, any eggs or chicks will not be exposed to temperatures that are potentially too hot for survival. FWC also posts a set of rules and protocols for surveying breeding/nesting shorebird online under the Breeding Bird Protocol, which is attached to this plan.
Park officials will post nesting signs around all nesting areas that are officially identified by surveyors, following FWC guidelines for posting Shorebird and Seabird sites in Florida (guidelines attached). Participants will then enter the collected data into the FWC online database, The Florida Shorebird Database. Nesting survey data has been entered every season since 2011 into FSD, in partnership with the Florida Shorebird Alliance. FWC offers yearly training to anyone interested in entering data into the system and should be contacted if there are any questions This portion of the survey will give a chance to accurately GPS the nesting areas, aid in their protection, and support the statewide efforts to count and monitor nesting activity.

Park Boundaries run from the Park entrance located along Heckscher Dr. (AIA) to the west, throughout the entire peninsula to the east bordered by Atlantic Ocean and from the southern St. Johns River/ Inlet to the northern Ft. George Inlet. The survey will cover these boundaries along a set route identified on FSD for Huguenot Memorial Park.

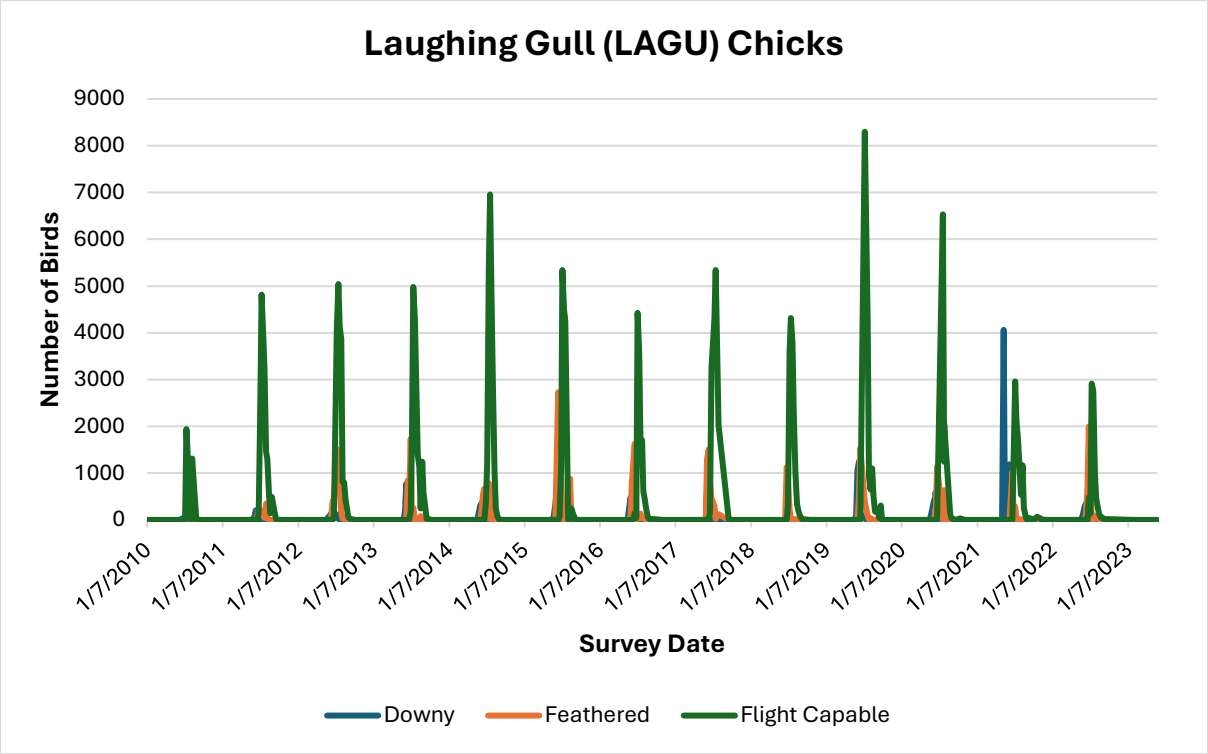
***Non Nesting Surveys***

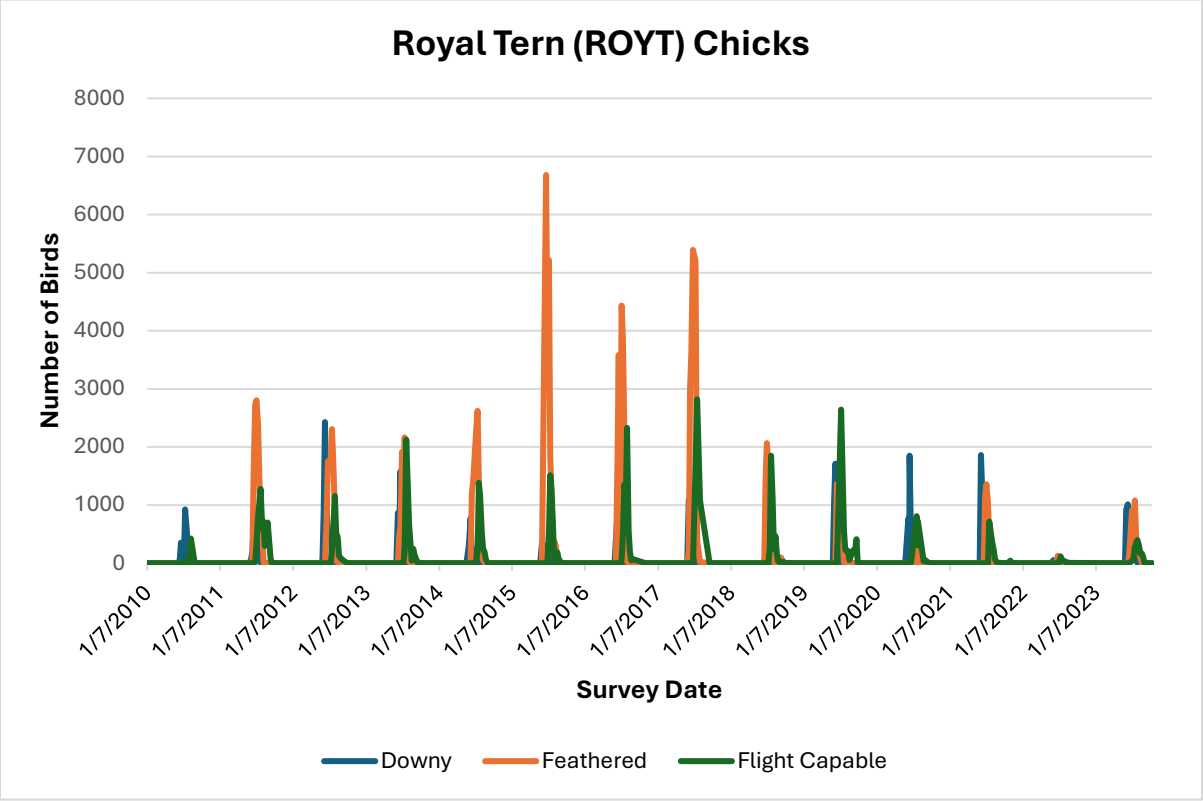
The idea is to minimize any disturbance or stress to migrating and resident shorebirds, seabirds and wading birds. Surveys are conducted every other week between the hours of 9am to 4pm careful to record the site, survey method, species, number of adults, activity, time and date, weather and tidal conditions, and whether or not the counts are direct or estimated depictions. (Refer to the data form attached for an example)

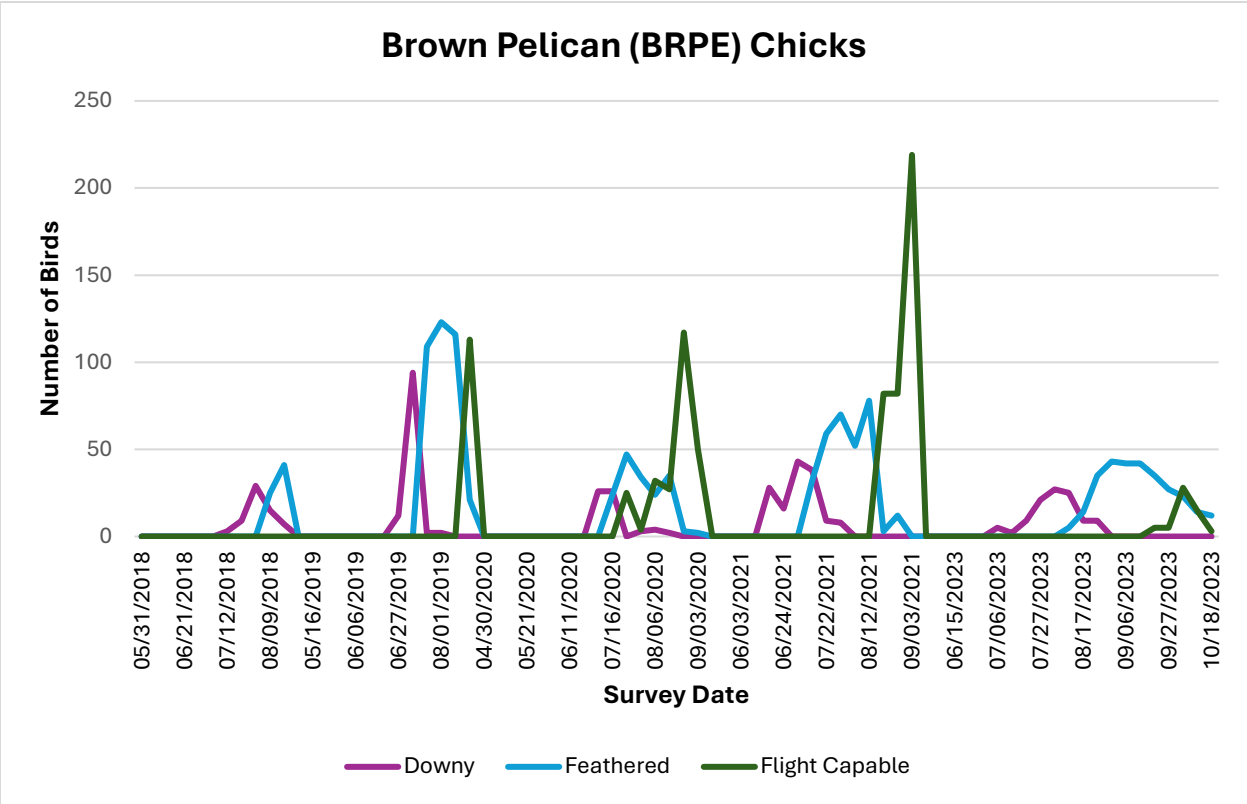
The HMP will follow FPS data collection methods and following FWC and ISS guidelines for both portions of the survey. The ISS has a written plan for surveying and monitoring shorebirds during non-breeding season at HMP (Oct 1-Feb 28/29), which will be the basis for this portion of the survey (Starr Nicely Version *.* available through ISS web site under FL region - BCR 27). It is of suggestion to survey the entire perimeter of HMP for this type of survey, at a falling tide where birds are likely to be further down the beach feeding (less likely to be disturbed), with a four-wheel drive vehicle to cover ground in a timely manner. The surface of the beach is also much more solid and passable at a good low tide, HMP is described as having two types of habitat for non-nesting shorebirds, type 1 habitat along the back side of the park (zones 13 through 16 and the southern end along the St. Johns River (zones 2 through 5 referred to as "Wards Landing"), and a type 2 habitat which is the beach that runs along the Atlantic ocean (zone 6 through 12). ISS considers type 1 habitat, to be areas that are used frequently by shorebirds and are areas that need to be sampled (surveyed) in a well defined plan. A plan which will need to ensure a thorough survey is done every year in these areas. Type 2 habitat are, areas that are used, but used less frequent by shorebird species, often areas that are used for recreational activities (these areas should and will be included within the survey area). Once a week COJ biological staff will drive around the entire perimeter at low tide, paying close attention to the known "hot spots" and keeping at least 100 yards from any shorebirds, any areas where birds may feel threatened from vehicles the surveyor will continue on foot to count and record each species. Again, in areas that shorebirds may be disrupted by a surveyor on foot, surveyors will relocate to a further distance and record observations with binoculars. All data collected at HMP will be entered into the FWC database for 'non-breeding' shorebirds and all data will be submitted to eBird for further analysis.

# Appendix K. Shorebird Nesting Data

## Exhibit K – Nesting Bird Data




Brown Pelican (BRPE) Chicks
Number of Birds
250
200
150
100
50
0
05/31/2018
06/21/2018
07/12/2018
08/09/2018
05/16/2019
06/06/2019
06/27/2019
08/01/2019
04/30/2020
05/21/2020
06/11/2020
07/16/2020
08/06/2020
09/03/2020
06/03/2021
06/24/2021
07/22/2021
08/12/2021
09/03/2021
06/15/2023
07/06/2023
07/27/2023
08/17/2023
09/06/2023
09/27/2023
10/18/2023
Survey Date
Downy
Feathered
Flight Capable

# Appendix L. Sea Turtle Management Plan

**Huguenot Memorial Park**

**2024 Marine Turtle Nesting Survey Plan**

The purpose of this program is to perform a daily morning survey of the beaches at Huguenot Memorial Park, which will ensure all marine turtle nesting sites are recorded, marked, identified, counted, and protected during the dates of nesting season in Duval County. Preservation Project Jacksonville acknowledges that beach driving is allowed through-out the park and poses a threat to any un-marked nesting sites. Any nest sites discovered will be marked so that no nests are disturbed and that all traffic may pass safely at all incoming tides (including extreme high tide occurrences- "spring tides"). Female marine turtles usually "crawl" ashore during the night to nest. night-beach driving is not allowed, to avoid disturbing any possible nesting females.

The State of Florida has an intricate network of monitoring programs in place throughout the entire coastline, regulated by the Florida Fish and Wildlife Conservation Commission. It is imperative that Huguenot Memorial Park join up with one or more of these programs to ensure the safety of all species found nesting here, and to help provide more accurate data of nesting activity along the northeast coast of Florida. Both neighboring parks (to the north: Talbot and Amelia Islands State Parks and to the south: Kathryn Abbey Hanna Park/ Mayport) have programs intact, reporting several nests each season, every year.

All species of marine turtles that nest on Florida beaches are considered endangered or threatened species. The three most common species found on Duval beaches are the Loggerhead sea turtle (*Caretta caretta*; most common), the Green sea turtle (*Chelonia mydas*; second most common), and the Leatherback sea turtle (*Dermochelys coriaces*; known to emerge on Duval beaches; however they are not very common). Studies have shown that the Loggerhead turtles that nest along Northeast Florida are a different strain (slightly genetically different) of Loggerhead compared to the ones found nesting along South Florida beaches. NE Florida Loggerheads are considered part of a different nesting colony, found nesting from North Carolina to NE Florida. The separation line is believed to run between Cape Canaveral and Jacksonville, making it extremely important that every nest in North Florida be counted and protected (see attached Scientific Journal). Common or not each species is very important to protect to ensure their future survival. Each species of marine turtle leaves a distinct crawl pattern, as well as other emergence characteristics that each person participating will be trained to identify. This program will benefit the State and Federal conservation efforts.

The two programs established in the State of Florida are the: SNBS (Statewide Nesting Beach Survey Program), and INBS (Index Nesting Beach Survey Program), both work together but in the end have different goals. The SNBS program is a broad program designed to collect data from beaches throughout the State and is used to show statewide information about each nesting species found in Florida. This program is the most widely used, and FWC recognizes that every

beach in Florida is different from the next creating a variance in the way that everyone surveys their beaches. Each survey system (written protocol) may be tailored to fit each region, as far as staffing, training, volunteers, and data collection, and even how nests are marked/ protected, and where each survey system must adhere to FWC marine turtle nesting guidelines. The INBS programs have a strict identical protocol set forth by FWC to assess nests in a way that data is very detailed, and every survey system collects the data exactly the same, regardless of the character of each beach. FWC uses this program to create consistency in all data collected, which assists in viewing trends that happen over time, within all indexed beach zones at each sanctioned beach. To qualify for an indexed beach program, the program often must be in place for 10 consecutive years.

The Florida Fish and Wildlife Conservation Commission will assist with how Huguenots' program should be enacted. HMP marine turtle program is currently authorized to survey for nests, outfit nests with self-releasing screen, maintain and display preserved specimens, conduct nest success evaluations, conduct stranding/salvage activities, and collect Loggerhead egg samples on behalf of collaborators under MTP-24-183. Huguenot Memorial Park will be responsible to conduct marine turtle stranding and salvage should an injured, sick, or deceased turtle make its way onto its' beaches. FWC has specific procedures in place should an incident of standing and salvage situation occur and HMP will have to adhere to these procedures.

The Florida Fish and Wildlife Conservation Commission (FWC) lists in their Marine Turtle Conservation Handbook that Nassau County through Flagler County minimum start/stop dates for SNBS as 15$^{th}$ of April- 30$^{th}$ of September. Surveys should start shortly after sunrise and no earlier than a half-hour before sunrise, as they begin it is best to walk along the most resent high tide line. Walking is preferred; however other parks and programs do use trucks and 4-wheelers to cover more ground in a short amount of time. If there is enough room to drive the beach on the morning of each survey then a vehicle can be used, however if the tide is too high, then walking the survey may be necessary. This will be the call of the supervisor on sight. Starting after first light ensures that any remaining nesting females are not disturbed and that any "crawl" marks are not missed or wrongly identified. These discovered "crawls" come in two different categories; a nesting emergence and a non- nesting emergence ("false crawl"), surveyors will be trained to identify these visually and will use these patterns to identify the species of the marine turtle. After studying the crawl, it is recommended that it is marked by crossing the crawl out, so it will not be recorded twice. Refer to the FWC guidelines manual for any questions and or good descriptions and visuals.

The supervisor of this program must obtain or poses a permit for performing marine turtle nesting surveys from the FWC. The FWC prefers that the person pursuing a permit have at least two years of experience performing nest surveys. This permit entitles the issued to perform duties listed within the permit and does not allow the individual to act as an FWC officer. Every permit regulates the boundaries of the survey, Huguenots boundaries are constantly changing; any desired change in boundary (any expansion) must be submitted to the FWC, Bureau of

Protected Species Management. The boundaries are very specific, and GPS is highly preferred, as well as landmarks (state roads, county lines, etc.).

The nesting permit for HMP will enable whoever listed within the permit to survey for nests, outfit nests with self-releasing screen, maintain and display preserved specimens, conduct nest success evaluations, conduct stranding/salvage activities, and collect Loggerhead egg samples on behalf of collaborators. The permit holder is expected to be proficient in all duties listed with in the permit and is responsible for all staff being properly trained for nest surveying. Each participant who will be participating in any activities listed within the permit will be required to be listed on the supervisor's permit. FWC permits for nesting surveys can have up to 25 names listed with-in each, to ensure that each program can obtain enough work force to get the job done. Each nest found will be marked according to the FWC regulations and only marked by personnel whose names fall within the permit. The tidal levels will be evaluated (through predicted tidal charts, looking for any extreme high tide occurrences, i.e. spring tides) for the calculated gestation period of the nest (generally 55 days, depending on the species), to ensure the safety of each nest and to all park patrons driving past. This may also be a good opportunity to evaluate tidal levels throughout an entire year, storm events and spring high tides included, to help with any effort to evaluate dangers to patrons driving on the beach safely.

Marine turtle nests have been known to exist within the boundaries of Huguenot Memorial Park, and are less common when compared to the rest of Florida, however because Loggerheads of North Florida are slightly different each nest needs to be recorded and protected. Female marine turtles are known and are often expected to return to the same beaches which they have been to in the past, and it is more than likely that nesting will occur within Huguenot boundaries', considering nesting has occurred in the past. The State and Federal government has strict laws to protect all marine turtles (specifically nests), if nests at Huguenot are not protected properly, damage could occur where steep penalties could be applied. Any neglect of marine turtle nests leaves a park open to many liabilities, especially those where beach driving is permitted. If all nesting activities, including false "crawls", are recorded at Huguenot; the data for the entire region will portray a more accurate number of marine turtle nesting activities, beneficial to the entire State.

Preservation Project Jacksonville acknowledges that nests found will be in no specified location, other than the upper portion of the beach, and each marked location may or may not pose threat to vehicular patrons at high tide. Particularly the areas in the past, where traffic was forced to drive very close to the dune line to avoid the incoming tides. Zones 9 and 10 (refer to the Huguenot Zoning Plan attached) have been described as problematic areas for vehicles at an unexpected extreme high tide. These zones will need to be monitored even closer should a nesting emergence occur in or near them. If any nest is considered to be in a "problematic safety zone" for a specific day or days where a extreme high tide may occur, park officials should plan to divert traffic to the other safe passages and areas of the beach during these suspected times. Astronomical tidal predictions for the area, show peaks of possible future spring tides, and may

assist with prediction of a possible safety issue. HMP will be responsible to closely monitor and if deemed necessary secure the area in front a nest found, around the time that the calculated hatching will occur. It is best to ribbon off a 10-foot area expanding out from the front posts expanding seaward. This is a necessary precaution and will be designated to keep vehicles from driving in this area. It may prove beneficial to position staff or volunteers near this area and times if during a busy weekend. Hatchling emergence generally occur during nighttime hours, however taping off the area may still necessary.

During nesting season, marine turtle nest awareness information should be offered to patrons entering the park. This should include helpful information and penalties for disturbing marine turtle nests. Information packets, signs, and even bumper stickers are available from the FWC. Park staff will monitor any marked nest during the nesting season and must report any vandalism or tampering of nesting sites and caution any patrons in the proximity of the nest.

The surveyors will be of volunteer origin, supervised and hand-picked by a person with a strong background and training in this field. The best system will be to have one supervisor to oversee operations (handle all data entry and turn all data in a timely manner) and coordinate a team of volunteers for monitoring the beaches.

Each day the beach will be surveyed by one person, who may walk several days in a row, depending on everyone’s availability. There will be plenty of back-up personnel, pre-ordained, to cover any vacation time or call outs. The supervisor may use as many volunteers as needed, as long as he or she follows the FWC guidelines and works under the parameters of a marine turtle survey permit. Surveyors will record all necessary data when any emergence is discovered and will proceed to mark the nest as trained. The nests will be marked for protection from vehicular traffic in accordance with FWC guidelines.

The permit holder will be in charge of scheduling all volunteers and will have staff to fill any day that cannot be covered by a volunteer. The approach will be to work under one of the park's neighboring permit holders, Kathryn Abby Hanna Park or Talbot Islands State Park, until qualified for our own permit. Hanna Park across the inlet (to the south), is managed by the City of Jacksonville also, and works with Art Burt, the Mayport Naval Station Wildlife Officer (area permit holder), to mark and monitor any discovered nests. Art Burt has agreed to oversee nesting survey operations at Huguenot and to carry the permit for the 2006 and 2007 season. He holds an INBS permit for his beaches and will apply for the same type of permit HMP. Art will help train Christopher, and volunteers to perform all duties of the permit holder and has agreed to assist Huguenot personnel if any questions arise. This will only be a temporary arrangement for the 2006 and 2007 nesting season and Huguenot Memorial Park will need to apply for a separate permit for the 2008 nesting season. Art has also requested that PPJ assume responsibility to survey and monitor nesting along Hanna Park after the 2007 nesting season. Art Burt, warrant officer with Mayport Naval Station retired in 2012 and Shelley Beville was granted approval to take the permit for both Huguenot Memorial and Kathryn Abbey Hanna Parks, Permit # MTP-

YY-185 & MTP-YY-183. Jolie Friedrich took over the permit from Shelley Beville after the 2017 season. Stephen Klem took Hanna Park Permit #MTP-185 mid-season of 2019. Patricia Haas took over the permit from Jolie Friedrich after the 2023 season and is the current permit holder for MTP-24-183.

It is required every other year that anyone who will be participating in this program attend one or more workshops provided each year by the FWC. The workshops provide information that is needed to participate in this program. FWC will have final say on which permit Huguenot can work under and who will be issued a permit.

## FWC FISH AND WILDLIFE RESEARCH INSTITUTE
## STATEWIDE NESTING BEACH SURVEY (SNBS) PROTOCOL

1. **Survey Period:** Ideally, SNBS nest surveys should capture all nesting activity on a particular beach. Suggested minimum start/stop dates are as follows:

| County Range | Suggested Latest Daily Nesting Survey Start Date | Suggested Earliest Daily Nesting Survey End Date |
|---|---|---|
| **Nassau County through Flagler County** | 15 April | 30 September |
| **Volusia County through Miami-Dade County** | 1 March | 31 October |
| **Monroe County** | 15 April | 31 August (30 September in portions of the county where green turtles nest) |
| **Collier County through Pinellas County** | 15 April | 30 September |
| **Franklin County through Escambia County** | 1 May | 31 August |

2. **Survey Time:** Surveys must be conducted in the early morning hours, preferably beginning at dawn, in order to optimize crawl interpretation.

3. **Survey Frequency:** Most Statewide nesting beach surveys are conducted seven days a week, but some beaches, particularly remote ones, are surveyed on a less frequent basis. Ideally, survey frequency should remain constant. All crawls should be marked or "erased" daily to avoid duplicate counts on subsequent survey days. If surveys are not conducted seven days/wk, the strategy for counting tracks when the survey resumes (count all vs count only the new tracks) should remain the same throughout the season.

4. **Survey Boundaries:** Survey boundaries should remain the same from year to year. If changes are necessary, please contact FWC/FWRI well before the nesting season begins. Boundaries should be permanent physical features.

5. **Crawl Identification:** All fresh crawls (above and below the recent high tide) are identified to species and as either nests or false crawls based on visible crawl characteristics.

6. **Data Reporting:** Data are reported on annual report forms supplied by FWC/FWRI. The deadline for filing this report is 30 November. **Please submit annual SNBS report directly to FWRI, do not upload them to the FWC online permit system.**

7. **Significant Events:** If significant events occur that may affect turtles or their nests, please let FWC/FWRI know about them. Significant events include habitat alterations such as beach nourishment, the placement of armoring or beach-access ramps, or erosion due to storms. Indicate date(s) and type of event in the comments section of the data form.

8. **Assistance:** Should questions arise or problems occur, contact Beth Brost at 727-502-4738, Beth.Brost@MyFWC.com; Simona Ceriani at 727-892-4119, Simona.Ceriani@MyFWC.com; or Anne Meylan at 727-502-4740, Anne.Meylan@MyFWC.com.

**YOUR EFFORTS ARE GREATLY APPRECIATED!**

Revised: 9Feb2015

# Sea Turtle Nesting Survey Protocol

The park opens to the public at 6am, please arrive to the park prior to the gates opening and sign-in. Retrieve the Nesting Data Sheet Binder from the front office, here you will find blank sheets for new crawls and existing data on past crawls and current nests. Optional, also pick up the 5-gallon Sea Turtle bucket with mallet, staple gun, flagging tape, DNA vial, sharpie, gloves, etc. **Please remember that all nesting data is not to be shared with the public. We do not share hatch dates under any circumstances. If you post educational photos on social media, you must include 'all activity covered under MTP-183'.**

- Proceed to the beach. Exit the flats and begin by driving down to the most recent high tide line and drive below it (ocean side, not in the wrack line) to the right and check for crawls in zone 6 then travel north all the way up to zone 12. Occasionally turtles will come up in zone 5, so this area should be checked as well just in case, but this can be done last. During the bird closure at 'The Point', only marked city vehicles should drive through this area. Volunteers can walk or leave this area for the opening ranger to check, just be sure to communicate with them.
- Once a crawl has been located, exit your vehicle to inspect the crawl. At minimum (4) photos should be taken if it is a nest. (1) towards the apex of the crawl from the shoreline, including the end of the entrance and exit tracks; (1) from the apex of the crawl beach facing the ocean; (1) close up of the crawl; (1) of the nest cavity itself. If the crawl is a false crawl that does not possess any potential nest characteristics, the last photo may not apply.
- Determine if the crawl is a nest or false crawl based on characteristics. If it is determined that the crawl is a nest, please gently locate the clutch and wear gloves to remove 1 egg from the nest as a DNA sample for Dr. Shamblin's research. It is important that we do not touch the egg with bare skin. If you know how to process the egg for preservation, please do so, otherwise leave the egg at the front office to be processed later. Cover with sand and pat down the area where the clutch was located, and egg

removed. If you are not able to locate the clutch quickly or are waiting for a second opinion, please place cones around the nest cavity and proceed with the nesting survey, returning to this crawl after the beach has been checked. Remember, incorrectly labeled false crawls can be changed to nests if they later hatch but if the nest is not behind the dune postings, we should be sure it is not a nest.

- Enter the relevant information into a new data sheet for nests AND false crawls; **Every single crawl MUST be recorded**. Photos can be emailed or texted to Patty at Phaas@coj.net. All current nests should be inspected closely, and any activity recorded. Crawl ID's will be generated following a specific method; False Crawl or Nest, the scientific name of the species, and the number in which it was observed. For instance, our first Loggerhead nest will be NCC1. Numbers for nests and false crawls will be independent, so will have N—1 and a FC—1, etc.
- If the clutch was located, place cones around the nest cavity centered around the clutch to prevent driving over the nest and mark an X in the sand over the clutch. Continue surveying the remainder of the beach.
- Inspect any existing nests and check for signs of emergence around the hatch window. If there are signs of tampering with the nest by humans or animals, take clear photos to send and record in the data sheets. Our most common predator is ghost crab, if a burrow is found near the nest fill it in. If eggs have been removed from the nest and predated, record and remove the eggs burying them far from the nest elsewhere on the beach. If protection has been washed out, record and repair as needed. If a nest has emerged and hatchlings show signs of disorientation take clear photos and try to locate the light source. Follow the disoriented tracks a try to locate any potential live hatchlings. Volunteers **SHOULD NEVER** walk through the dunes into the CWA or any posted beach nesting bird area, if the tracks go over the primary dune take photos and let Patty know.
- Once the nesting survey has been completed, proceed with placing protection around the nest. If you are unable to stay to place protection, please meet with park staff before leaving to pass on any relevant

information. All protection materials can be found outside of the Sea Turtle Shed in the maintenance yard and 5-gallon bucket in the office. For all nests behind the DNE Dune signs and rope you will need (3) plain stakes and (1) with metal DND sign for a total of (4), (1) 3x3 metal grate and approximately (12ft) of orange mesh. Those nests outside of the dune protection will need an additional barrier placed to prevent disturbance by vehicles. (4) additional PVC or wooden posts with rope should be installed surrounding the nest with a buffer of approximately 5ft. The nest ID # should be written in sharpie on a piece of flagging tape around the back left post. The DND yellow sign should be installed on the front left or right post.

- When finished, please be sure to return all materials and double check all relevant information has been entered into the nesting data sheets and photos have sent.

**Important Contact Info**

Huguenot Front Office 904-255-4255 ext. 0 & Email HuguenotPark@coj.net

Patty Cell: 772-985-9816 & Email: PHaas@coj.net

Normal days off are Monday & Tuesday

# HUGUENOT MEMORIAL PARK SEA TURTLE CRAWL DATA SHEET

**Crawl ID/Nest #: _____ Observers: _____ Date located: _____**

| CRAWL INFORMATION | |
|---|---|
| **Survey Date:** _____ | **Day 55 & 70:** _____ |
| **Type of Crawl:** ☐ Nest ☐ False Crawl | **Latitude:** _____ **Longitude:** _____ |
| **Species:**<br>☐ Loggerhead (CC) ☐ Kemp's Ridley (LK)<br>☐ Green (CM) ☐ Leatherback (DC) | **Most Recent High Tide Line:**<br>☐ Above ☐ Below |
| **Photos:** (1) Apex of crawl towards water; (1) Waterline towards apex of crawl; (1) Area of digging; (1) Crawl pattern | **Location Description:** Zone #, distance from dune, distance from tide line, vegetation, etc.<br>_____<br>_____ |
| **Send Photos to Patty <u>Email Preferred</u>**<br>**Phaas@coj.net** & 772-985-9816 | **Obstacles Encountered**<br>_____ |

**NEST INCUBATION ACTIVITY**

| Date | **Type of Impact** (Predation, wash over, accretion | **Eggs/Hatchlings** (Removed/Damaged) |
|---|---|---|
| | | |
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**NOTES:**

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# HUGUENOT MEMORIAL PARK SEA TURTLE CRAWL DATA SHEET

**Crawl ID/Nest #: _____ Observers: _____ Date located: _____**

| NEST EMERGENCE ACTIVITY | | | |
|---|---|---|---|
| **Event #** | **Date** | **Tracks present?** | **Disorientation?** |
| 1st Emergence | | ☐ Yes ☐ No | |
| 2nd Emergence | | ☐ Yes ☐ No | |

| NEST SUCCESS EVALUATION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Date & Inventory Participant Names** | | | | | | | | |
| **Hatched in Nest** | **Live in Nest** | **Dead in Nest** | **Unhatched Eggs** | | | | **# of Hatchlings Emerged** | **Total # of Eggs** |
| | | | **Live Pipped** | **Dead Pipped** | **Whole** | **Damaged** | | |
| | | | | | | | | |

**NOTES:**

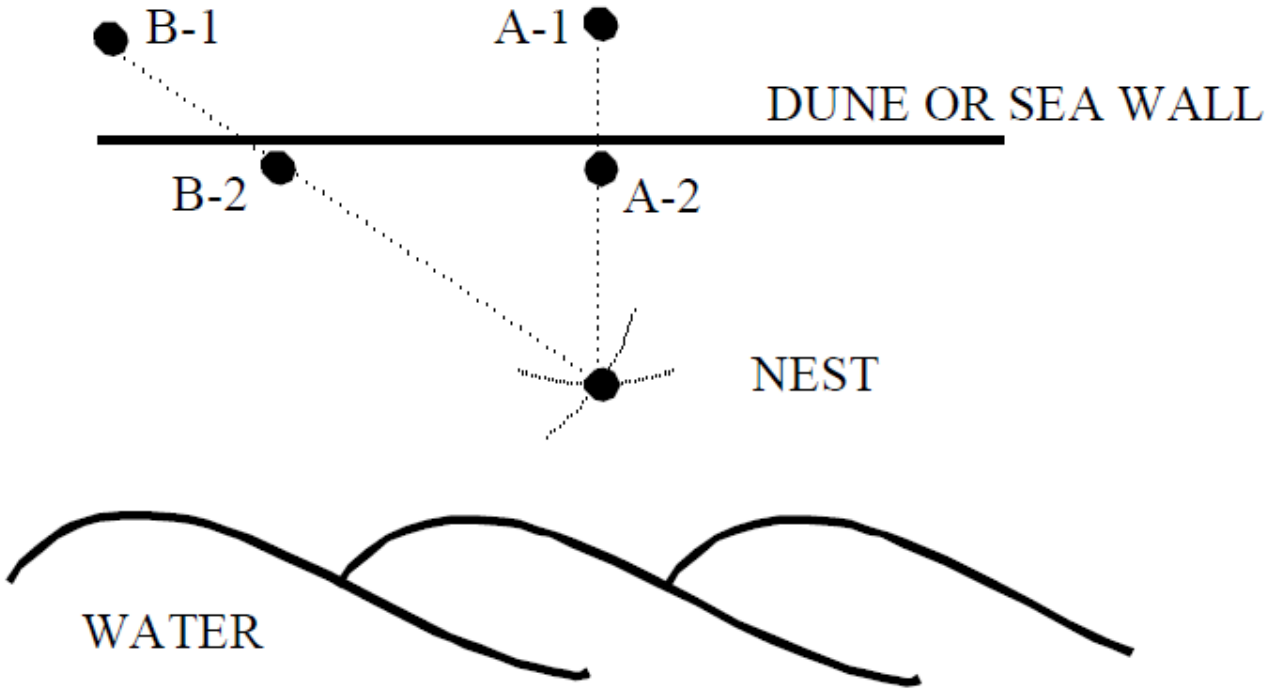
_____

_____

_____

_____

| DUNE MARKERS | | | | |
|---|---|---|---|---|
| Use only when a storm or other lunar event may cause posted protection to wash out. Sharpie nest ID on stakes. | | | | |
| **Coordinates** | A1: | A2: | B1: | B2: |



**Florida Fish and Wildlife Conservation Commission**
**Fish and Wildlife Research Institute**
**Guidelines for Marine Turtle Permit Holders**

**Nesting Beach Surveys**
**TOPIC: CRAWL IDENTIFICATION**

GLOSSARY OF TERMS:

**Crawl** -- Tracks and other sign left on a beach by a sea turtle.

**False crawl** -- A crawl resulting from an abandoned nesting attempt (a non-nesting crawl).

**Nest** -- A crawl resulting from a nesting attempt in which eggs were deposited.

**Egg chamber** -- The cavity excavated by the rear flippers of a nesting turtle into which the turtle deposits a clutch of eggs.

**Primary body pit** -- The excavation made by a turtle on the beach just prior to digging the egg chamber.

**Backstop** -- An approximately 45° incline made in the sand as sand is pushed back with the rear flippers during the excavation of the primary body pit. Such a steeply inclined backstop is not present in the secondary body pit.

**Secondary body pit** -- An excavation made by a nesting turtle using the front flippers following the deposition of eggs. The spoil from the secondary body pit covers the primary body pit and the egg chamber with sand.

**Escarpment** -- The perimeter of the secondary body pit where the front flippers have cut away a small cliff into the surrounding sand.

CRAWL IDENTIFICATION:

I. **What species made the crawl?**

A. Track appearance as in Figure 1, loggerhead track: tracks from a sea turtle with alternating limb movement, no tail drag mark, and track width approximately 25 inches: **loggerhead turtle** (*Caretta caretta*).

B. Track appearance as in Figure 1, green turtle track: tracks from a sea turtle with simultaneous limb movement, a center drag mark from the tail, and track width approximately 35 inches: **green turtle** (*Chelonia mydas*).

C. Track appearance as in Figure 1, leatherback track: tracks from a sea turtle with simultaneous limb movement, a center drag mark from the tail, and track width approximately 45 inches or more; track path often circling or sinusoidal (S-shaped): **leatherback turtle** (*Dermochelys coriacea*).

**Note**: Flipper injuries to turtles may influence track sign. Characteristics of the nest (given below) should be used in conjunction with track characteristics to identify species.

II. **If the crawl is from a loggerhead, is it a nest or a false crawl?**

A. Identify emerging and returning tracks by their direction (Figure 1). As a loggerhead crawls, it will push sand backward with each flipper stroke.

B. Follow the path taken by the turtle and look for the following attributes.

1. Evidence of front flipper covering (Figure 2). If present, the crawl is a **NEST**.

   a. Secondary body pit and/or escarpment.

   b. Sand "misted" or "thrown" over the emerging track.

2. Evidence of an abandoned nesting attempt (Figure 2). If present, the crawl is a **FALSE CRAWL**.

   a. Very little or no sand disturbed other than tracks.

   b. Back stop with sand pushed back (not thrown) over emerging crawl, typically between two ridges of sand piled by the front flippers during construction of the primary body pit.

   c. Considerable sand disturbed from a digging effort, but with the crawl exiting the disturbed area and continuing toward the dune before turning toward the ocean.

   d. Considerable sand disturbed from a digging effort, but with a smooth-walled or collapsing egg chamber (8-10 inches in diameter) in the center of a pit within the disturbed area.

III. **If the crawl is from a green turtle, is it a nest or a false crawl?**

A. Identify emerging and returning tracks by their direction (Figure 1). As a green turtle crawls, it will push sand backward with each flipper stroke.

B. Follow the path taken by the turtle and look for the following attributes.

1. Evidence of front flipper covering (Figure 3). If present, the crawl is a **NEST**.

a. Sand thrown into a mound that is more than twice as long as the visible body pit or a deep (1-2 foot) secondary body pit with an escarpment (Figure 3).

2. Evidence of an abandoned nesting attempt. If present, the crawl is a **FALSE CRAWL**.

a. Very little or no sand disturbed other than tracks.

b. Less sand thrown over the emerging track and a shallower body pit than in 1a above (Figure 3).

IV. **If the crawl is from a leatherback turtle, is it a nest or a false crawl?**

A. If the crawl consists of a large expanse of beach (10x15 feet to 15x25 feet, sometimes greater) having extensive sand thrown and often in multiple directions, the crawl is a **NEST**.

B. If the crawl is less extensive than in A and has little evidence of thrown sand, the crawl is a **FALSE CRAWL**.

**Note**: The extent of the excavations described for all species above will be influenced by sand type, vegetation, and other objects encountered by turtles while digging.

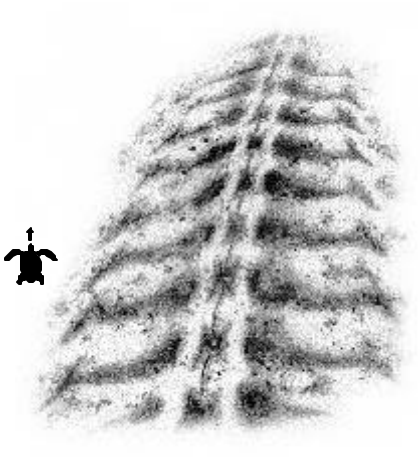
Figure 1. Characteristics of sea turtle tracks found on Florida beaches.

## LOGGERHEAD

A. Alternating comma-shaped flipper marks

B. Wavy and smoothed track center with no thin, straight, and well-defined tail-drag mark

C. No regular marking from front flippers at the margins of the track

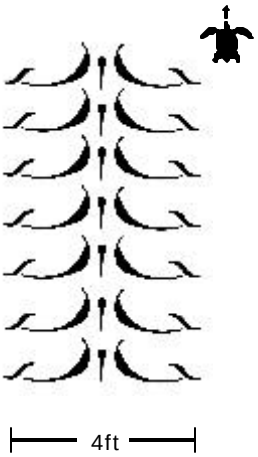



## GREENTURTLETRACK

A. Parallel flipper marks as from a "butterfly-stroke" crawling pattern

B. Ridged track center with a thin, straight, and well-defined tail-drag mark that is punctuated by tail-point marks

C. Regular marking from front flippers at the margins of the track




## LEATHERBACK

A. Parallel flipper marks as from a "butterfly-stroke" crawling pattern

B. Ridged track center with a thin, straight, and well-defined tail-drag mark that is punctuated by tail-point marks

C. Extensive marking from front flippers at the margins of the track And extending the total track width to 6 - 7 feet

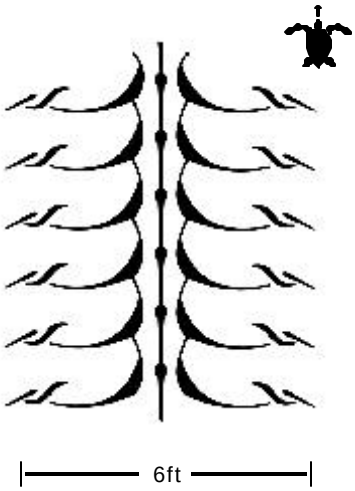
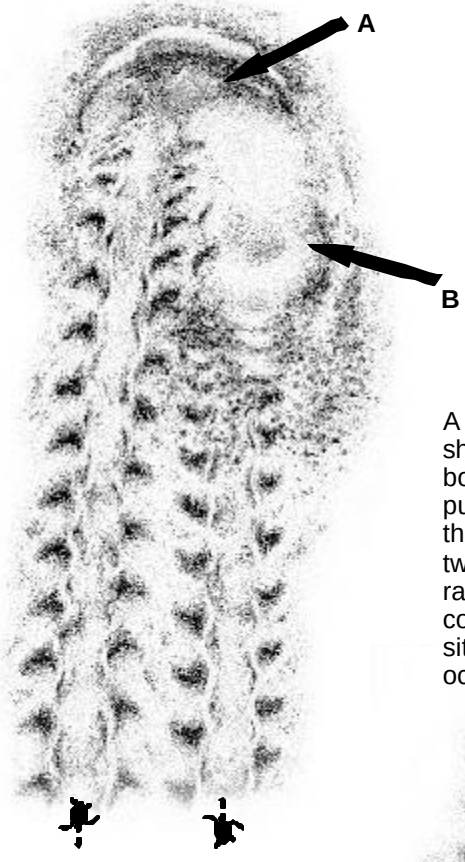


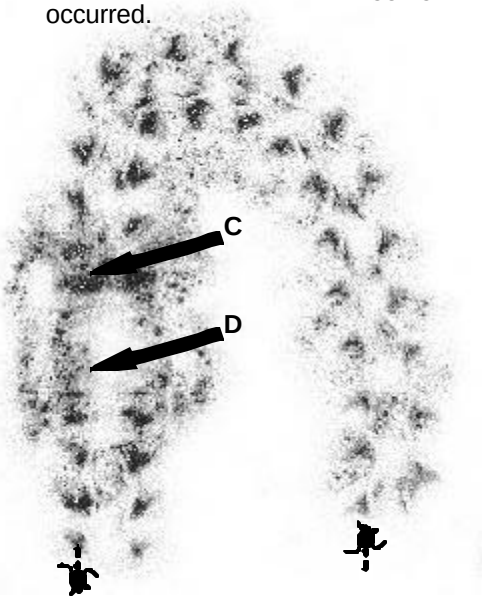
Figure 2. Characteristics of **loggerhead crawls** indicating either that the turtle had previously nested (left a nest) or had abandoned its nesting attempt (left a "false crawl").

A **loggerhead nest** site showing a secondary body pit (**A**) and a mound of thrown sand ( **B**) that is wider than the track.

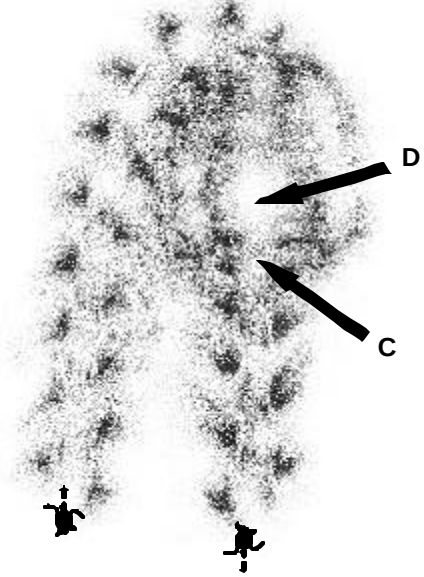



A **loggerhead false crawl** showing no evidence of disturbed sand other than the track.

A **loggerhead false crawl** showing an abandoned primary body pit (**C**) and a mound of pushed sand (**D**) no wider than the track and lying between two conspicuous ridges. As is rarely found in nests, a track continues up the beach from the site where the turtle's last digging occurred.




A **loggerhead false crawl** showing a small abandoned primary body pit (**C**) and a mound of pushed sand (**D**) no wider than the track and lying between two conspicuous ridges.




A **loggerhead false crawl** showing a primary body pit with an abandoned egg cavity ( **E**).

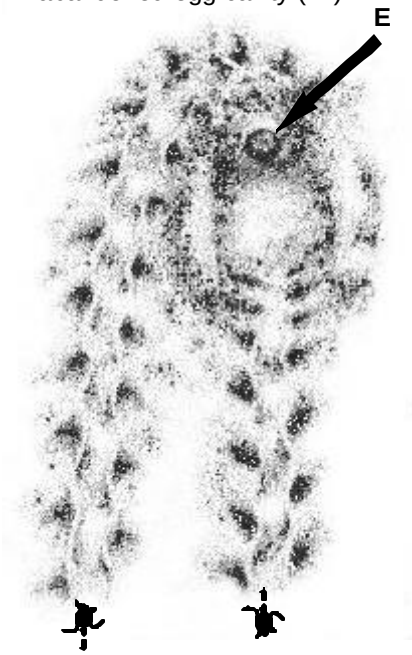
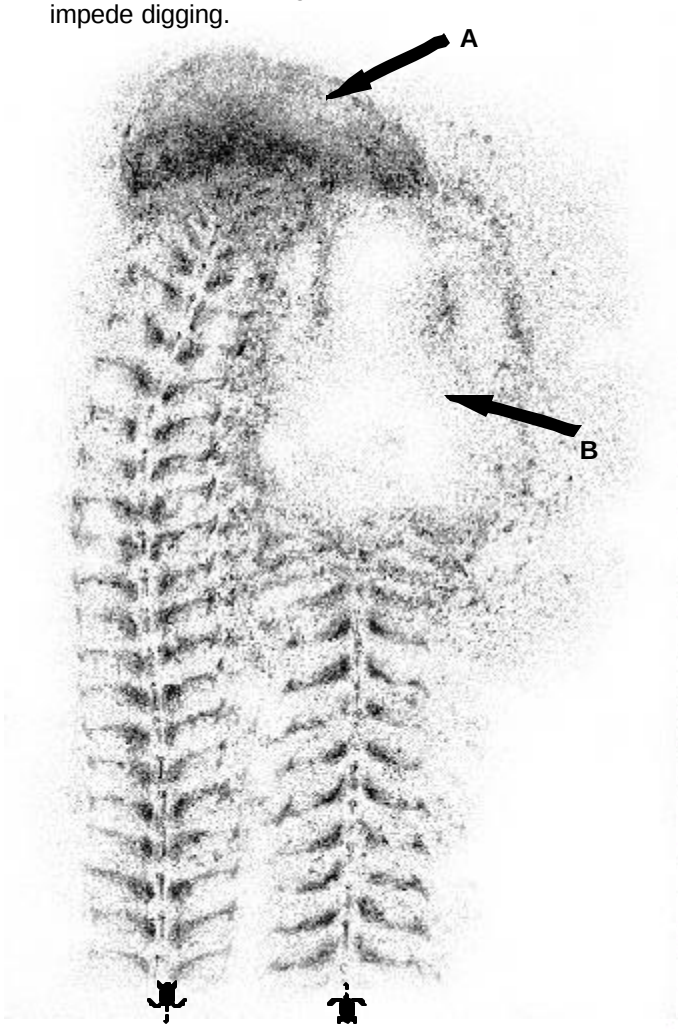
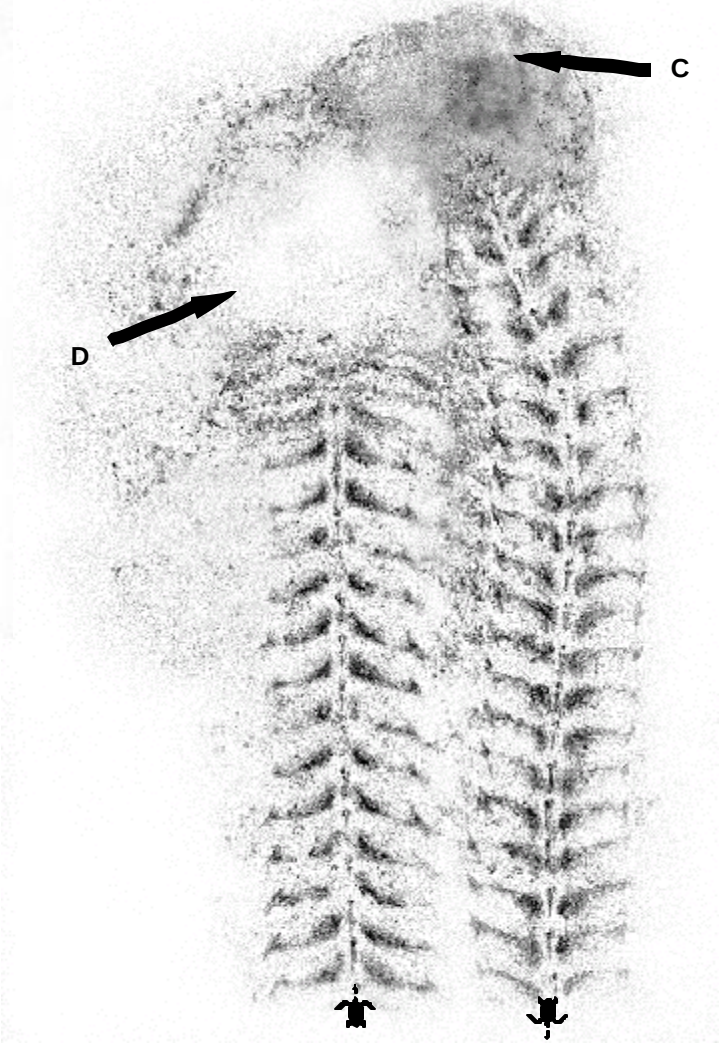


Figure 3. Characteristics of **green turtle crawls** indicating either that the turtle had previously nested (left a nest) or had abandoned its nesting attempt (left a “false crawl”).

A **green turtle nest** site on an open beach showing a secondary body pit (**A**) and a mound of thrown sand (**B**) that is greater than twice as long as the visible secondary body pit. Note that smaller nest mounds are expected when obstacles or vegetation impede digging.




A **green turtle false crawl** on an open beach showing an abandoned primary body pit ( **C**) and a mound of thrown sand ( **D**) that is smaller than twice as long as the visible primary body pit. Note that many green turtle nests may have body pits and nest mounds that look similar to this.



# Sea Turtle Nest Protection Installation Guide

**Supplies needed:** 3 plain wooden stakes, 1 wooden stake w/ DND ST nest sign, roll of ~ 12ft orange mesh, 3x3 metal grate, mallet, staple gun & staples. All wooden stakes, metal grates, and orange mesh is stored outside the Sea Turtle Shed. All installation supplies can be found in the 5-gallon Sea Turtle Bucket in the office.

**Step one:** Locate the clutch (this should have already been done by the morning Sea Turtle Surveyor) and will be designated by a cone or an 'X' drawn in the sand. Place the metal grate so that the clutch is in the center. The rectangles of the grate should be installed so that the widest section is facing the ocean.

Like this:  Not this: 

**Step two:** Using the mallet, install the wooden posts in each corner of the metal grate. Hammer down the posts approximately 1-2ft into the sand. The wooden post with the sign should be installed as one of the front posts. (Not pictured: tie flagging tape with the nest name written in sharpie to the back post)

**Step three:** Unroll orange mesh and beginning at one wooden post, use staple gun to attach mesh to wooden post. One staple at the top and one at the bottom is usually enough, a third can be used in the middle if necessary. Continue all the way around the exterior of the posts until complete. Return supplies, cleaned, and put away where they were found.


STEP - 1
STEP - 2
STEP - 3

# Viable Egg Collection Protocol
# Loggerhead Nest ONLY

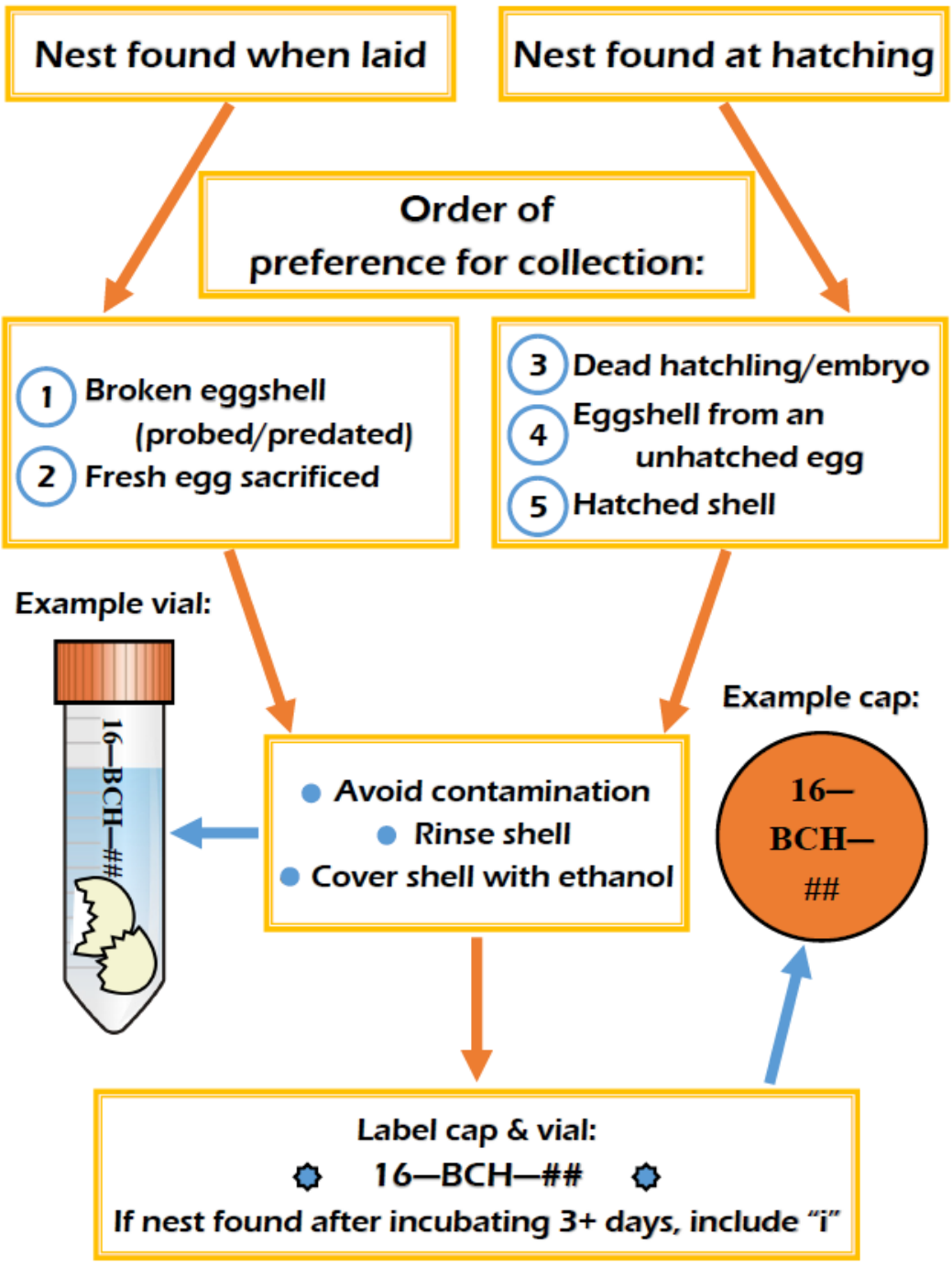
1) Pull a single egg from each nest- ideally when the nest chamber is validated. (If nest is more than 5 days old, please note this on the vial).
2) Open the egg and discard its contents. (The goal is to try to keep the yolk and associated embryonic disc and membranes OFF the eggshell to the extent possible. We are trying to avoid having the embryonic DNA contaminate the maternal DNA) Pinching a spot on the shell and opening the egg wide open like a bag of chips is the best way to avoid contamination. The egg contents should be discarded well away from the nest, ideally buried into wet sand. Eggs broken by predators (found the morning after oviposition), the nesting female, or beach monitors will work, but please rinse these in the ocean if any yolk is present.
3) Place the entire shell in a 50 ml conical tube containing 95% ethanol. (Tubes are flammable, so keep away from heat sources!)
4) Write the nest ID on the orange cap of the vial with a Sharpie.
5) While on the beach, try to keep the sample out of direct sunlight if possible.
6) Store the samples in a cool (room temperature is fine), dark place.

The goal is to collect a freshly laid (< 48 hours old ideally) eggshell from every nest on your beach. We need some sort of genetic sample from every nest laid- if a fresh egg wasn't collected because the nest was originally called a false crawl- then we can use a dead hatchling or embryo flipper collected at inventory. Each and every nest needs to be represented, with the order of preference being:

1) freshly laid egg
2) depredated eggshell (if available from ghost crab depredation, etc. and only if fresh egg wasn't taken)
3) dead hatchling tissue at inventory (fresher the better, only if fresh egg fails or wasn't collected)
4) shell from undeveloped egg at inventory (in addition to dead hatchling, ideally. This gives us two shots at getting a match.)

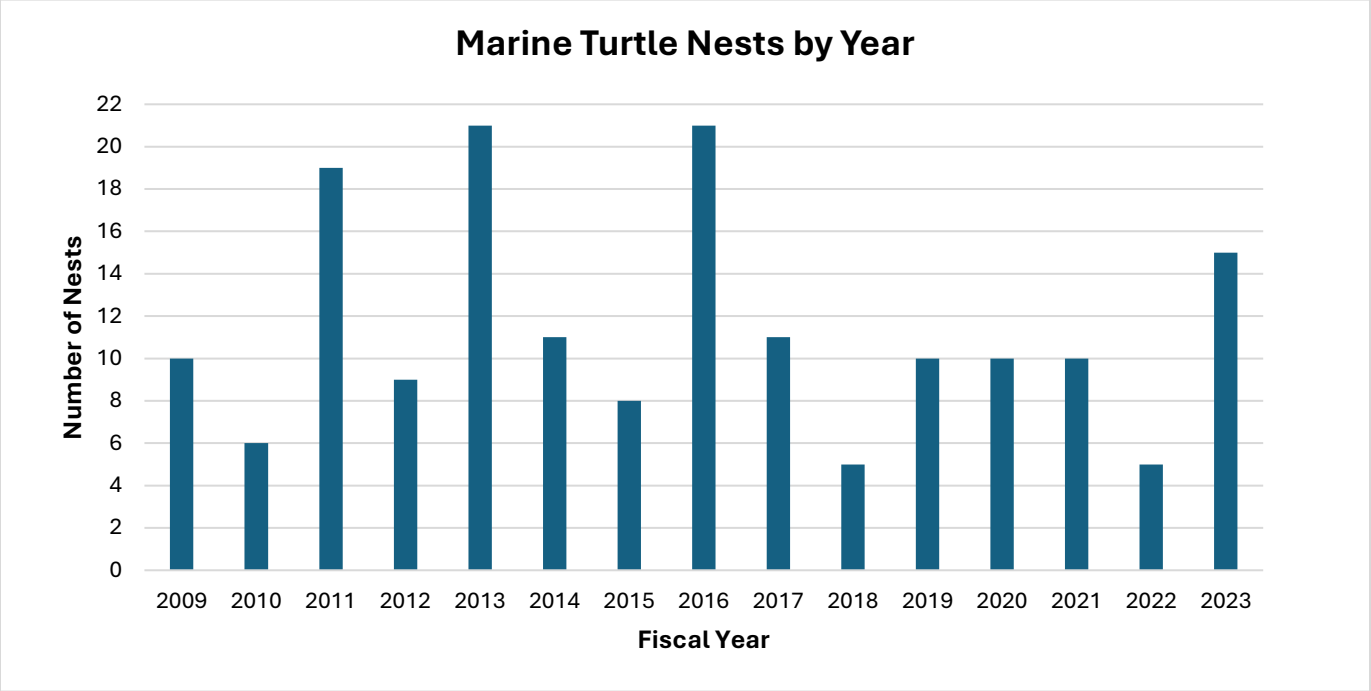
Fresh eggs contain by far the best DNA compared to eggshells from various stages of incubation, so please make every effort to get a fresh egg from each and every Loggerhead nest.

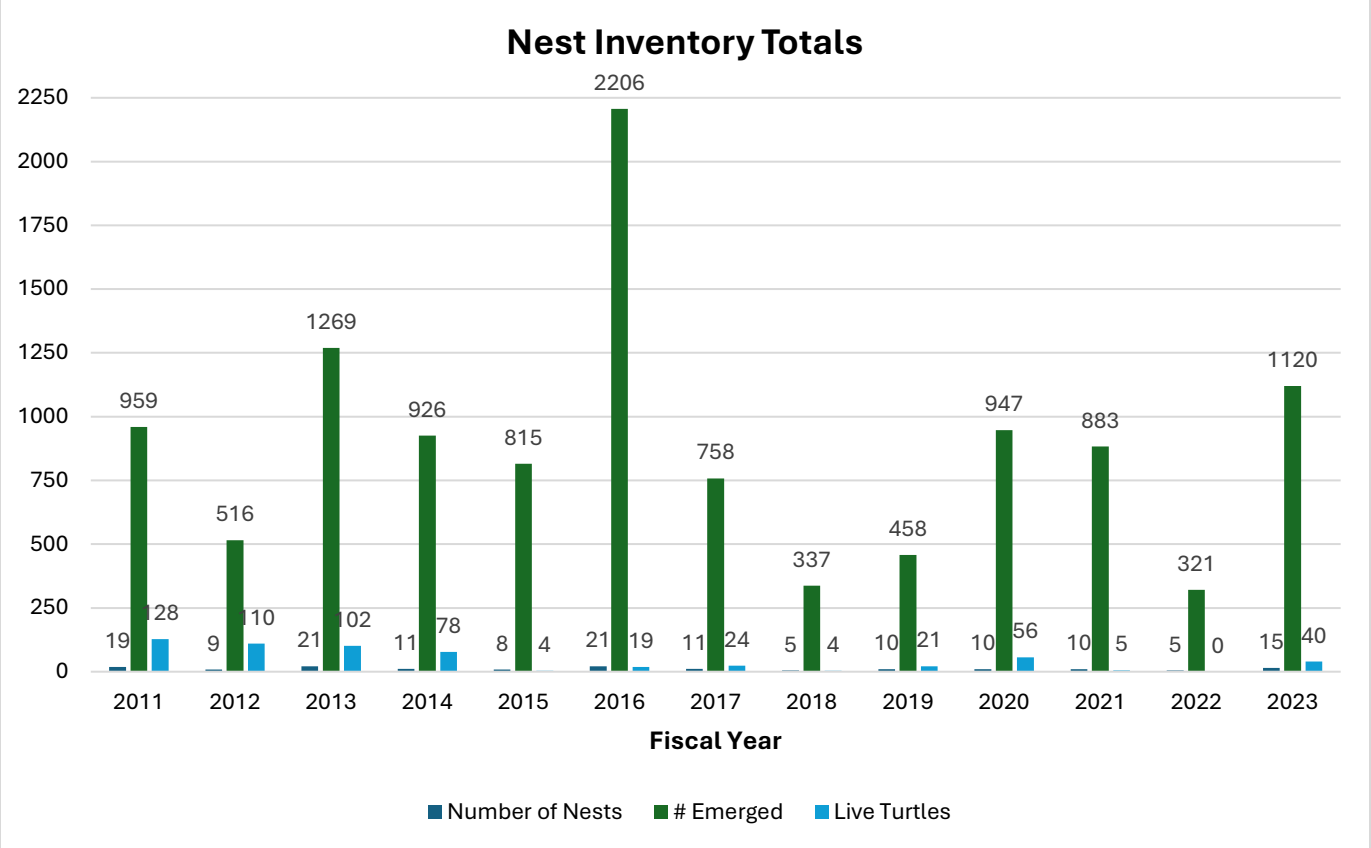
**Example for our vials:** Year-HUG-Nest ID

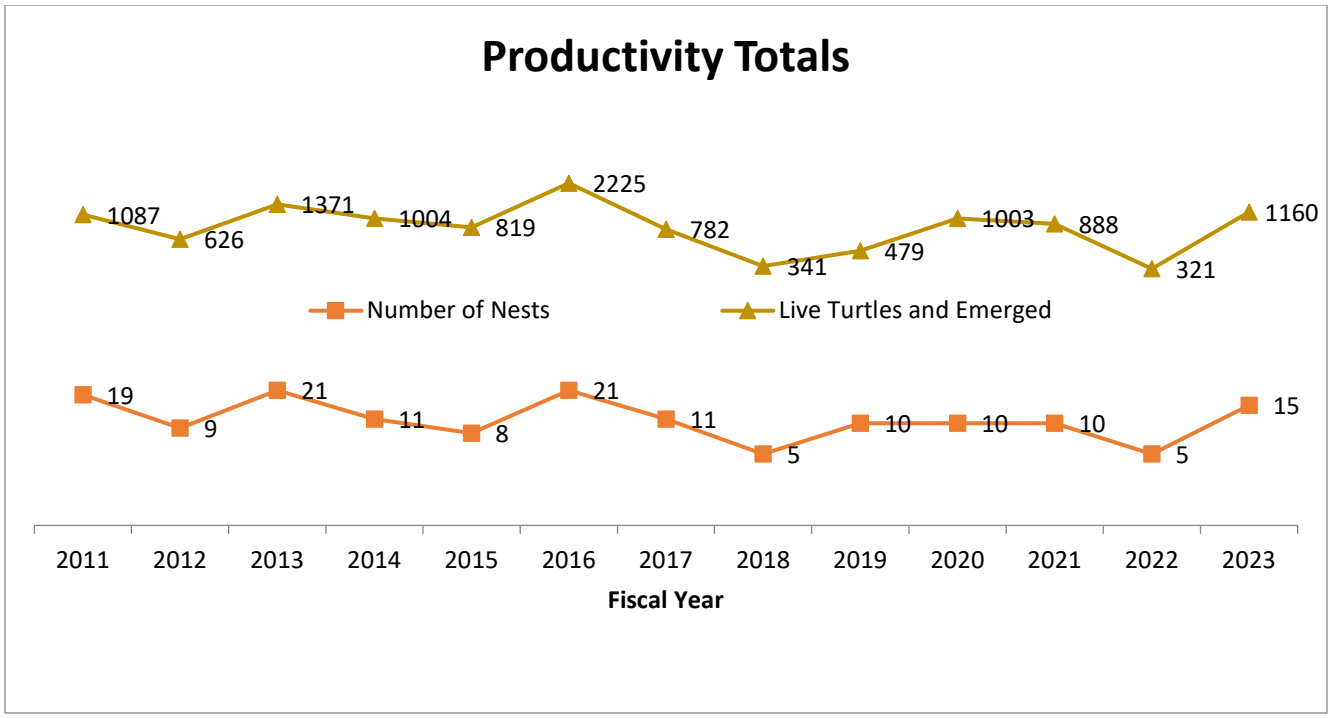


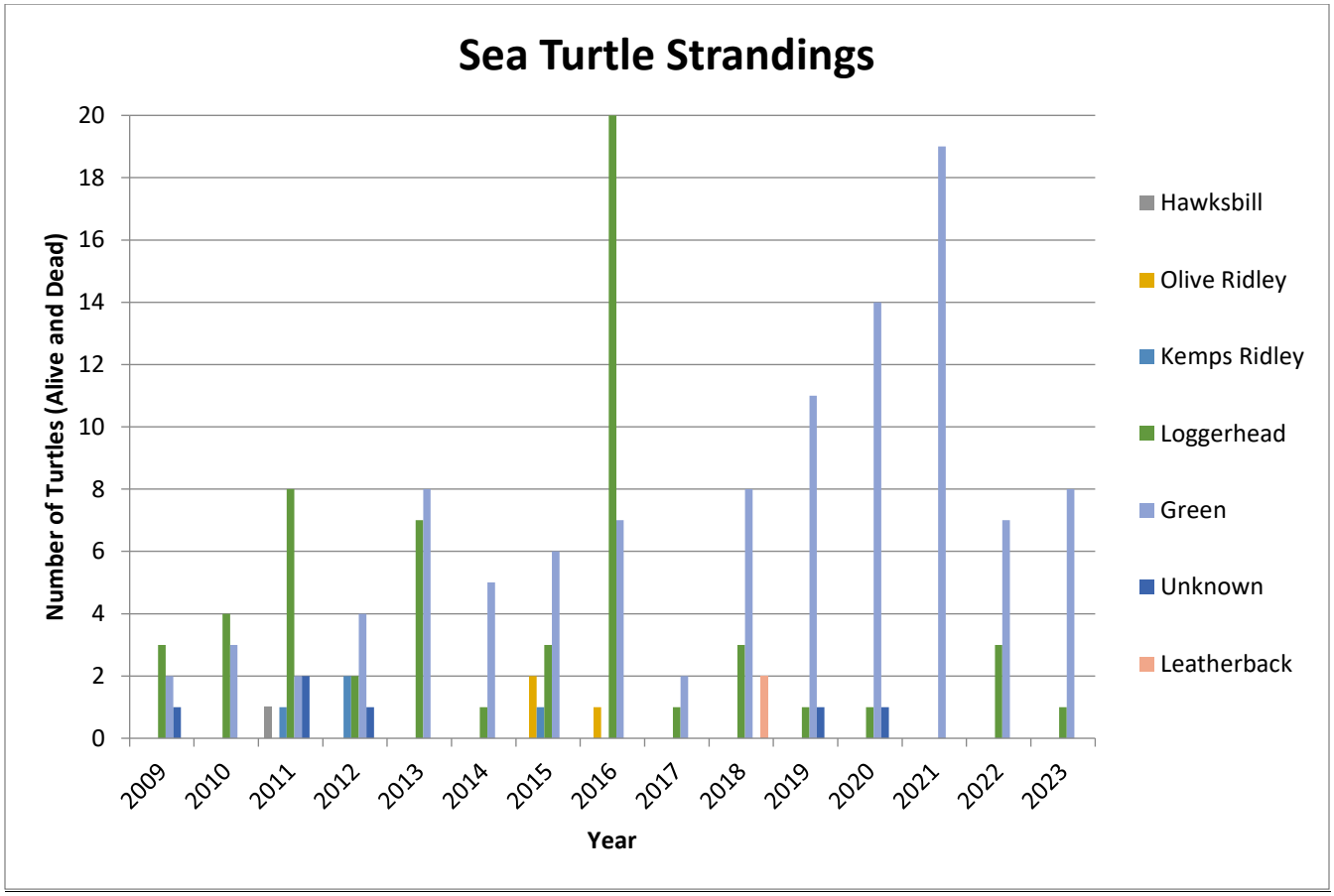
# Appendix M. Sea Turtle Nesting Data

## Exhibit M – Marine Turtle Report




Productivity Totals
1087
626
1371
1004
819
2225
782
341
479
1003
888
321
1160
Number of Nests
Live Turtles and Emerged
19
9
21
11
8
21
11
5
10
10
10
5
15
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Fiscal Year


Sea Turtle Strandings
Number of Turtles (Alive and Dead)
0
2
4
6
8
10
12
14
16
18
20
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Hawksbill
Olive Ridley
Kemps Ridley
Loggerhead
Green
Unknown
Leatherback

# Appendix N. Management Procedures of Archaeological and Historical Sites on State-owned or Controlled Lands and Florida Master Site Information

# APPENDIX K – MANAGEMENT PROCEDURES OF ARCHAEOLOGICAL AND HISTORICAL SITES ON STATE-OWNED OR CONTROLLED LANDS

**Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties**
(revised March 2013)

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

A. General Discussion

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

B. Agency Responsibilities

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

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

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

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

C. Statutory Authority

Statutory Authority and more in depth information can be found at:

http://www.flheritage.com/preservation/compliance/guidelines.cfm

D. Management Implementation

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

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

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

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

E. Minimum Review Documentation Requirements

In order to have a proposed project reviewed by the Division, certain information must be submitted for comments and recommendations. The minimum review documentation requirements can be found at: http://www.flheritage.com/preservation/compliance/docs/minimum_review_documentation_requirements.pdf .

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

Deena S. Woodward
Division of Historical Resources
Bureau of Historic Preservation
Compliance and Review Section
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Phone: (850) 245-6425
Toll Free: (800) 847-7278
Fax: (850) 245-6435

# Appendix O. Local Government Letters of Compliance