

South Prong of the St. Mary's River
Baker County

Florida Forever Project Evaluation Report

Prepared by:
Division of State Lands
Office of Environmental Services

Submitted to the Acquisition and Restoration Council
April 8, 2022



Acquisition Type: Less-than-Fee
Acres: 1,146
Just Value: \$1,149,000
Application Date: October 31, 2021
Project Sponsor: North Florida Land Trust

Executive Summary

The proposed South Prong of the St. Mary's River Florida Forever project contains three parcels totaling approximately 1,146 acres in Baker County. The project is located south of Interstate 10 (I-10), immediately west of County Road (CR) 229 and north of John Mann Road. Cities nearby include Sanderson and Lake Butler. According to the property tax appraiser's evaluations, the project area has a total tax assessed value of \$1,149,000. The South Prong of the St. Mary's River project is proposed as a less-than-fee acquisition.

South Prong is a mixture of actively managed pine forest and wetland habitat. It is an excellent example of a well-managed forest. The property is characterized by planted pine flatwoods and basin swamp. It contains the forested headwaters for the South Prong, one of the largest tributaries of the St. Mary's River, a regionally significant hydrologic system. The current landowner manages the property for high-quality wildlife habitat, private recreation and timber production.

The property is within Priority 1 of the Florida Ecological Greenways Network (FEGN), and is part of the larger Ocala to Osceola (O2O) Wildlife Corridor project, which links the Ocala National Forest to the Osceola National Forest. Rare species documented or reported within the proposed project area include the hooded pitcherplant (*Sarracenia minor*), Catesby's lily (*Lilium catesbaei*), Florida black bear (*Ursus americanus floridanus*), gopher tortoise (*Gopherus polyphemus*), red-cockaded woodpecker (*Leuconotopictus borealis*), and southeastern fox squirrel (*Sciurus niger niger*). The property does not contain any known archaeological or historical structures or artifacts. However, the project lies within a five-mile radius of 40 historical structures, 58 archaeological sites, and two resource groups.

If approved for addition to the 2023 Florida Forever Priority List, this project should be incorporated into the Raiford to Osceola Greenway Florida Forever project. The 1,146 acres proposed for acquisition are considered essential due to the resources documented on the property (see Appendix C). An interagency team conducted a site visit to the project site on January 25, 2022. Information included in this project evaluation report is a result of this site visit.

PURPOSE FOR ACQUISITION

Acquisition of the South Prong of the St. Mary's River project would conserve valuable forest resources contribute to the protection of valuable habitat corridor for the Florida black bear and the protection and maintenance of a large population of the rare and endangered Chapman's fringed orchid (*Platanthera chapmannii*). The project protects the forested headwaters of the South Prong, a tributary of the St. Mary's River; and will help to ensure the water quality and hydrology of the Saint Mary's River and the estuaries at its mouth.

Acquisition of this project would serve to:

- Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- Protect, restore, and maintain the quality and natural functions of land, water and wetland systems of the state.
- Increase the amount of forestland available for sustainable management of natural resources.
- Conserve and protect a portion of Florida's rural landscape in order to provide and enhance wildlife corridors for rare and imperiled species.

LOCATION AND PROXIMITY TO OTHER MANAGED AREAS

The South Prong of the St. Mary's River proposal includes 1,146 acres (1,147 GIS acres) in Baker County. The property consists of a single contiguous block of land located in southern Baker County approximately five miles south of Sanderson and 3.5 miles south of I-10. It also has 1-mile of frontage

along the eastern boundary of CR 229. The closest managed area is Osceola National Forest, approximately four miles to the northwest. There are no other managed areas within a 10-mile radius. The property is in a predominantly rural landscape and lies within the Florida Wildlife Corridor, potentially contributing to a connection between Camp Blanding Military Reservation and the Osceola National Forest. The Raiford to Osceola Greenway Florida Forever project lies one mile to the west and less than one mile to the south. The Camp Blanding to Raiford Greenway Florida Forever project is located approximately eight miles east.

The property lies in the upper portion of the South Prong of the Saint Marys River watershed, one of the four principal streams that form the upper Saint Marys River. While the watersheds of the North and Middle Prongs of the Saint Marys River have extensive areas of protected land, there are no managed lands within the watersheds of the South Prong or the adjacent Cedar Creek. The Saint Marys River flows northward around the Trail Ridge before turning east and flowing to the Atlantic along the Florida/Georgia border. Acquisition of conservation easements in the watershed of the South Prong of the Saint Marys River would help protect the water quality and hydrology of the Saint Marys River and the estuaries at its mouth.

RESOURCE DESCRIPTION

Florida Natural Areas Inventory (FNAI)

This evaluation is based on information gathered from the proposal, Florida Natural Areas Inventory (FNAI) database, aerial photography from 1994-2021, U.S. Geologic Survey (USGS) 7.5' topographic maps, and Cooperative Land Cover data (FNAI, Florida Cooperative Land Cover Map, version 3.4). A field visit was conducted on January 25, 2022, by FNAI biologists Geoffrey Parks and Geena Hill with the Acquisition and Restoration Council (ARC) liaison staff.

The South Prong of the St. Mary's River proposal property is situated on the High Flatwoods subdivision of the Sea Island District, a generally undissected terrace with sluggish surface drainage. Soils are mostly poorly drained sands from the Pelham and Pelham-Olustee series and very poorly drained Pantego-Pamlico muck. The entirety of the property is relatively level, with elevations varying only slightly from approximately 135 feet at various locations in the property's uplands to approximately 130 feet at the property's northwestern boundary. The main hydrological feature is a basin swamp that extends northwest from the parcel's southeast corner; this swamp drains across the property to the northwest, and with other smaller basin swamps on the property, connects to a larger headwaters area adjoining the property's northwest corner, which gives rise to the South Prong of the Saint Marys River.

Basin swamps make up the predominant natural community on the property, encompassing approximately 20% of the total acreage, in four main areas dispersed across the project. Canopy trees in the basin swamps include red maple (*Acer rubrum*), black gum (*Nyssa biflora*), slash pine (*Pinus elliottii*), and cypress (*Taxodium sp.*). The midstory is generally dense and includes a variety of hydrophytic trees including myrtle-leaved holly (*Ilex cassine var. myrtifolia*), dahoon (*Ilex cassine*), sweetbay magnolia (*Magnolia virginiana*, often reaching nearly into the canopy), and smaller shrubs such as large sweet gallberry (*Ilex coriacea*) and fetterbush (*Lyonia lucida*). Basin swamps on this property have a large component of slash pine in the canopy, and some areas may initially have been wet flatwoods that in previous decades became more swamp-like in the absence of fire.

In addition to large areas of basin swamp, isolated dome swamps are scattered throughout the remainder of the property. These areas have a tree canopy of black gum and/or pond cypress (*Taxodium ascendens*), and an open to dense midstory of shrubs such as myrtle-leaved holly and fetterbush, often draped with various greenbriar species (*Smilax bona-nox*, *S. glauca*, and/or *S. laurifolia*). Groundcover consists most commonly of scattered ferns such as cinnamon fern (*Osmundastrum cinnamomeum*) and Virginia chain fern (*Woodwardia virginica*), predominantly near the swamp's outer perimeter and in small slightly elevated areas.

Wet flatwoods are found in several areas, mostly in narrow bands between pine plantations and swamps. These are dominated by slash pine and overlap significantly in species composition with the adjacent swamps, but have a more open midstory and more herbaceous species, such as blue maidencane (*Amphicarpum muhlenbergianum*), purple bluestem (*Andropogon glomeratus var. glaucopsis*), hooded pitcherplant, sundews (*Drosera spp.*), and wiregrass (*Aristida stricta*).

The landowner reports that few stands of naturally-regenerated pine remained on the site when the property was purchased; these areas and a few areas at the intergrade between pine plantation and basin swamp are best characterized as mesic flatwoods. These have a canopy of mature slash pine, an open midstory, and groundcover consisting of native shrubs including saw palmetto (*Serenoa repens*), fetterbush, gallberry (*Ilex glabra*), and shiny blueberry (*Vaccinium myrsinites*), with scattered grasses and sedges including *Andropogon spp.*, *Scleria spp.*, and Curtiss' dropseed (*Sporobolis curtisii*). Wiregrass was seen at one location, but was not common.

One baygall occurs along the south boundary of the property, with a canopy of sweetbay magnolia and a dense midstory of fetterbush. This swamp was observed from a distance, not closely inspected during the site visit.

The predominant land cover on the South Prong of the St. Mary's River project area (59% of the property) is pine plantation managed for a mix of wildlife benefits and timber production. Older stands on the site are mostly mature, generally widely-spaced slash or loblolly pine (*Pinus taeda*) which the landowner intends to replace with longleaf as they are harvested. More recently-planted stands are bedded but are nearly entirely longleaf pine (*Pinus palustris*), with a variety of native ruderal species including broomsedge (*Andropogon virginicus*), sand blackberry (*Rubus cuneifolius*), and yellow-eyed grass (*Xyris spp.*).

The landowner reports that he plants wiregrass and other native groundcover species between tree rows when possible. Nearly all pine stands show evidence of frequent fire, and most older stands are structurally similar to mesic flatwoods, lacking a midstory and with a dense cover of herbaceous plants, including yellow-eyed grass, bluestem grasses, foxtail clubmoss (*Lycopodiella alopecuroides*), pink sundew (*Drosera capillaris*), flat-topped goldenrod (*Euthamia caroliniana*), beaksedges (*Rhynchospora spp.*), and whitehead bogbutton (*Lachnocaulon anceps*), intermixed with low-statured shrubs such as gallberry. Although lacking much of the diversity of native flatwoods, they nonetheless are likely to be suitable habitat for many species of wildlife typical of flatwoods; a probable Bachman's sparrow was observed in one such stand during the site visit.

Clearings where food plots have been planted are spread throughout the property, totaling about six acres, or 1% of the site. These plots are part of a year-round feeding regimen for game species.

The near-absence of invasive plants on the property is noteworthy, especially with the site's history of silviculture; the lack of development in the surrounding landscape and the frequent use of prescribed fire on the property may have contributed to the lack of colonization of the site by non-native plants. Table 1 provides a list of the landcover types identified on the proposal and their approximate acreages.

Table 1. Natural communities and landcover types within Florida Forever proposal

Community or Landcover	Acres	Percent of Proposal
basin swamp	229	20%
wet flatwoods	150	13%
dome swamp	23	2%
mesic flatwoods	20	2%
baygall	8	1%
depression marsh	<1	<1%

Community or Landcover	Acres	Percent of Proposal
pine plantation	679	59%
road	31	3%
clearing/regeneration	6	1%
developed	<1	<1%
Totals	1146	100%

Florida Fish and Wildlife Conservation Commission (FWC)

The property is owned by Doug Moore and is bordered on the north and west by the Weyerhaeuser Company and other silviculture-oriented landowners. The east boundary is CR 229 and several rural residential and agricultural properties. The south boundary is timberlands owned by Rayonier Forest Resources, Limited Partnership. Important established conservation areas nearby include the Osceola National Forest to the northwest and Raiford Wildlife Management Area to the southeast.

The South Prong property was acquired in May 2002 from International Paper Company and Plum Creek Timberlands. Both companies managed the property for pine production. Since acquisition, the current landowner has managed the uplands for pine production, but with an emphasis on accommodating wildlife needs. The current management program includes thinning and prescribed burning over longer rotations in order to benefit wildlife while producing income from timber.

Approximately 50% of the property is comprised of pine plantations, 3% in roads and utility rights-of-way, and the balance in various wetland communities including cypress domes, hardwood swamps, and other forested wetlands. Due to a long history of intensive silviculture, the pine flatwoods communities are altered, but are being restored with timber thinning and the use of fire and are in good condition. A review of historic aerial photography shows a history of intensive silviculture since the 1960s. During the field review, all pine stands visited had been bedded and planted at commercial production densities by the previous landowners. Due to extensive mechanical and chemical site preparation, the planted pine stands lacked the diverse herbaceous groundcover that is characteristic of the natural pine flatwoods. With thinning and the use of prescribed fire, the groundcover is improving, and the coverage of saw palmetto and woody shrubs is being reduced. The property supports a large population of the Chapman’s fringed orchid (*Platanthera chapmannii*), which is state listed as Endangered and the presence of this species is an indication that the current management is improving the herbaceous community. The dome swamps have not been harvested extensively and are in very good condition. The ecotones and transition zones between upland and wetland communities are improving as prescribed fire burns into the edges of the swamps.

The hardwood swamp associated with the South Prong of the St. Mary’s River on the west side of the property is in very good condition and has not been subject to timber harvest in recent years. The South Prong is a significant tributary to the St. Mary’s River and a valuable landscape feature for both water resources and wetland dependent wildlife species. The extensive dome swamps and freshwater wetlands are also in very good condition and provide a valuable resource for wetland dependent wildlife species as well.

There is potential habitat for listed plant and animal species that depend on fire-maintained pine forests with healthy herbaceous ground cover. Habitat for game species, such as white-tailed deer (*Odocoileus virginianus*) and wild turkey (*Meleagris gallopavo osceola*), and common non-game species is excellent. During the site visit, a tree was observed that had been heavily marked by a Florida black bear.

The FWC Florida Landscape Assessment Model (FLAM) is a GIS model that determines the landscape value based on natural resources and fish and wildlife habitat. The FLAM ranks habitat from a 0-10; a rank of 10 being of greatest value. The mean FLAM score for this property is 7.0. All (100%) is

identified as Priority 1 (of 5) for the Critical Lands and Waters Identification Project. All the area is within Priority 1 (of 5) of the FEGN. The National Wetlands Inventory (NWI) data shows 32% classified as wetlands. Approximately 96% of the property lies within a designated FWC Strategic Habitat Conservation Area (SHCA) for species including the American swallow-tailed kite (*Elanoides forficatus*) and Florida black bear.

The South Prong property in its current condition will provide good value as a less-than-fee acquisition for the State of Florida. The benefits provided by this acquisition include the ability to maintain and improve upland wildlife habitat, protection of the wetlands, and providing water quality and quantity benefits. Additionally, the property is in the corridor between Osceola National Forest and Raiford Wildlife Management Area, which is part of the larger Ocala to Osceola (O2O) Wildlife Corridor project, linking the Ocala National Forest to the Osceola National Forest.

GOALS, MEASURES AND CRITERIA

GOAL A:

ENHANCE THE COORDINATION AND COMPLETION OF LAND ACQUISITION PROJECTS

Measure A1:

The number of acres acquired through the state's land acquisition programs that contribute to the enhancement of essential natural resources, ecosystem service parcels, and connecting linkage corridors as identified and developed by the best available scientific data.

If interest is acquired, 1,146 acres would contribute to the enhancement of essential natural resources, ecosystem service parcels, and connecting linkage corridors.

Measure A2:

The number of acres protected through the use of alternatives to fee simple acquisition.

If interest is acquired, 1,146 acres would be protected through the use of alternatives to fee simple acquisition.

GOAL B:

INCREASE THE PROTECTION OF FLORIDA'S BIODIVERSITY AT THE SPECIES, NATURAL COMMUNITY, AND LANDSCAPE LEVELS

Measure B1:

The number of acres acquired of significant Strategic Habitat Conservation Areas.

The SHCA Florida Forever Conservation Needs layer identifies important remaining habitat conservation needs for 33 wildlife species on private lands. Priority 1 and 2 represent habitat for species considered imperiled or critically imperiled in Florida. The Florida Forever Measure Evaluation (FFME) (Appendix A) reports the site contains approximately 1,109 acres (97% of site) of Strategic Habitat Conservation Areas. This is mostly within Priority 3 (64% of site) and Priority 2 (31% of site), with the remainder in Priority 5 (2%).

Measure B2:

The number of acres acquired of highest priority conservation areas for Florida's rarest species.

Habitat conservation priorities for 281 of Florida's rarest species were mapped and divided into six priority classes. The FFME reports the proposed project contains approximately 1,147 acres (100% of site) of rare species habitat. The habitat is mostly divided between Priority 5 (50% of site) and Priority 6 (42% of site), with the remainder in Priority 4 (7% of site).

Table 2 lists the acres of habitat for each species that may be found on the site, based on the FNAI Habitat Conservation Priorities. Please note that habitats for these species overlap, so that the sum total of habitat for all species is more than the total acreage of the priority conservation areas.

Table 2. Rare species habitat based on FNAI Habitat Conservation Priorities*

Scientific Name	Common Name	Global Rank	Acres
<i>Mycteria americana</i>	wood stork	G4	196
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	1,147

*For 281 species with the greatest conservation need.

Measure B3:

The number of acres acquired of significant landscapes, landscape linkages, and conservation corridors, giving priority to completing linkages.

The FFME reports approximately 1,147 acres (100%) of the proposed project contributes to protection of Priority 1 ecological greenways. Prioritization is based on such factors as importance for wide-ranging species like Florida panther and Florida black bear, importance for maintaining a connected reserve network, and riparian corridors.

Measure B4:

The number of acres acquired of under-represented native ecosystems.

The Florida Forever natural community analysis includes only those communities that are under-represented on existing conservation lands. This analysis provides a conservative estimate of the extent of these communities, because it identifies only relatively undisturbed portions of these communities that occur within their historic range. The FFME lists the acreages of under-represented natural communities found on the site. Based on this analysis, the South Prong of the St. Mary’s River proposal contains 170 acres of mesic/wet flatwoods (15% of site).

Measure B5:

The number of landscape-sized protection areas of at least 50,000 acres that exhibit a mosaic of predominantly intact or restorable natural communities established through new acquisition projects, or augmentations to previous projects.

The South Prong of the St. Mary’s River proposal is disjunct from other conservation lands and would not contribute to a contiguous landscape-sized protection area of >50,000 acres. A landscape-sized protected area that includes Osceola National Forest (U.S. Dept. of Agriculture) is within four miles of the proposal.

Measure B6:

The percentage increase in the number of occurrences of imperiled species on publicly managed conservation areas.

This site supports habitat for several rare species of conservation concern. The site lies within an area where Florida black bear is classified as Abundant by FWC, and the landowner has observed and photographed this species on the property. The application also reports that Southeastern fox squirrel occurs regularly and that red-cockaded woodpeckers (presumably from the nearby population at Osceola National Forest) have been sighted. In addition to the species documented below, FNAI staff also documented a probable Bachman’s sparrow (*Peucaea aestivalis*) during the site visit, although this could not be confirmed.

Hooded pitcherplant was observed during the site visit at the edges of basin swamps and Chapman’s fringed orchid has been reported within the proposal area by FWC. Catesby’s lily, reported as occurring

on site, is also documented in similar habitats nearby. Additional plant species of concern may be present and could be revealed by additional surveys.

The FFME lists the number of Element Occurrences by Global Rank (G-rank) that are found on the proposal. Note that the number of occurrences does not necessarily match the number of species in the following table because a) some species may have more than one occurrence on the proposal site, or b) some species observed on site do not meet the criteria for addition to the FNAI database at this time. Table 3 below contains species falling into any of these observational categories, as well as species gleaned from other sources (e.g., Florida Breeding Bird Atlas) with different degrees of locational precision. Rarity rankings are listed in the following order: FNAI global (G, T) and state (S) ranks, federal status, state status. Species ranks and conservation status are described in Appendix D.

Table 3. Rare plants and animals document or reported to occur within the proposed project

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status
Rare plants documented or reported on site					
<i>Sarracenia minor</i>	hooded pitcherplant	G4*	S4	N	T
<i>Platanthera chapmanii</i>	Chapman's fringed orchid	G2	S2	N	E
Additional rare plants reported on site by applicant					
<i>Lilium catesbaei</i>	Catesby's lily	G4	S4	N	T
Rare animals documented on site					
<i>Ursus americanus floridanus</i>	Florida black bear	G5T4	S4	N	N
Additional rare animals reported on site by applicant					
<i>Gopherus polyphemus</i>	gopher tortoise	G3	S3	C	T
<i>Leuconotopictus borealis</i>	red-cockaded woodpecker	G3	S2	E, PT	FE
<i>Sciurus niger niger</i>	southeastern fox squirrel	G5T5	S3	N	N

GOAL C:

PROTECT, RESTORE AND MAINTAIN THE QUALITY OF NATURAL FUNCTIONS OF LAND, WATER, AND WETLAND SYSTEMS OF THE STATE

Measure C1:

The number of acres of publicly-owned land identified as needing restoration; enhancement, and management, acres undergoing restoration or enhancement; acres with restoration activities completed, and acres managed to maintain such restored or enhanced conditions; the number of acres which represent actual or potential imperiled species habitat; the number of acres which are available pursuant to a management plan to restore, enhance, repopulate, and manage imperiled species habitat; and the number of acres of imperiled species habitat managed, restored, and enhanced, repopulated, or acquired.

The property is offered for less-than-fee acquisition, intended to be utilized in a manner consistent with existing uses. While full restoration of flatwoods communities is likely beyond the scope of options for less-than-fee acquisition, the current landowner has undertaken an intensive wildlife-centered approach to improving the pinelands over their previous industrial silvicultural condition; the pine plantations on the site have been undergoing a long-term process of conversion from loblolly and slash pine to longleaf, and are generally managed with a fire regime appropriate for native flatwoods. While bedding of longleaf pine is likely to hinder the recovery of a diverse assemblage of groundcover species, the

structure of the pine stands as a result of the current management should continue to be beneficial to a suite of increasingly imperiled wildlife species typically found in flatwoods.

Ecotones between plantation and wetlands on this site provide a niche for several rare and/or listed plant species. This would be expected to continue under current management, which appears to have kept feral hog impacts minimal and allows frequent fire to influence wetland ecotones.

Invasive exotic plant control needs of the property are currently minimal. A baseline assessment to determine the full extent of any invasive plant infestations is warranted if acquisition of the easement occurs. Continuation of the current prescribed fire regime should slow the establishment of many invasive plants that could otherwise colonize the site.

Measure C3:

The percentage completion of targeted capital improvements in surface water improvement and management plans created under s. 373.453 (2), regional or master stormwater management system plans, or other adopted restoration plans.

There is no BMAP for the St. Mary's River. The St. Johns River Water Management District (SJRWMD) currently has no management or restoration plans for this drainage.

Measure C4:

The number of acres acquired that protect natural floodplain functions.

The FFME reports approximately 688 acres (60%) of the proposed project may contribute to the protection of natural floodplain function. This area is mostly divided between Priority 3 (37% of site) and Priority 4 (20% of site), with the remainder in Priority 2 (2% of site). Priority 1 areas are the most natural with the lowest intensity land uses.

Measure C5:

The number of acres acquired that protect surface waters of the State.

The FFME reports approximately 1,119 acres (98%) of the proposed project could provide protection for those surface waters of the State that currently remain in good condition. This area is divided between Priority 6 (67% of site), Priority 5 (25% of site), and Priority 4 (5% of site). These areas represent acreage that contributes to the protection of state-designated Outstanding Florida Waters, springs, rare fish habitat, or other surface waters.

Measure C7:

The number of acres acquired that protect fragile coastal resources.

The FFME reports that the proposed project does not include fragile coastal resources like coastal wetlands, imperiled coastal lakes, and fragile coastal uplands.

Measure C8:

The number of acres of functional wetland systems protected.

The FFME reports approximately 451 acres (39%) of the proposed project would provide protection for functional wetland systems. This area is divided between Priority 3 (28% of site), Priority 4 (9% of site), and Priority 2 (2% of site). Priority 1 areas are the most natural with the lowest intensity land uses.

Measure C11:

The number of acres of public conservation lands in which upland invasive, exotic plants are under maintenance control.

The 1,146 acres of the project is under maintenance through prescribe burns and/or herbicide treatments. The landowner indicated the presence of cogongrass (*Imperata cylindrica*), Chinese tallow (*Triadica sebifera*), and Japanese climbing fern (*Lygodium japonicum*) and has been treating areas when noticed.

GOAL D:

ENSURE THAT SUFFICIENT QUANTITIES OF WATER ARE AVAILABLE TO MEET THE CURRENT AND FUTURE NEEDS OF NATURAL SYSTEMS AND THE CITIZENS OF THE STATE

Measure D1:

The number of acres acquired which provide retention and storage of surface water in naturally occurring storage areas, such as lakes and wetlands, consistent with the maintenance of water resources or water supplies and consistent with district water supply plans

The SJRWMD concurs with the application’s calculation of 367 acres of natural occurring wetlands. The District has no water supply plans affected by this project.

Measure D2:

The quantity of water made available through the water resource development component of a district water supply plan for which a water management district is responsible.

Currently, the District has no planned water resource development projects at or near the project property.

Measure D3:

The number of acres acquired of groundwater recharge areas critical to springs, sinks, aquifers, other natural systems, or water supply.

The property is not in a restoration plan area, but the property would provide surface and ground water protection.

Table 4. Spatial Analysis for Potential Water Quality Benefits of South Prong

Categories	Scoring Criteria	Project Score
DEP High Profile Springs (In 1,2,3 or > spring sheds)	12, 24, 36	0
DEP Select Agricultural Land Use (0-30%, >30-65%, >65%)	4,8,12	4
DEP Florida Aquifer Vulnerability (FAVA)	4,7,10	7
DEP Special Nutrient Impaired WBIDs	9	0
DEP Distance to Major Lakes (100, 500, 1000 meters)	8,7,6	0
DEP Springsheds or within 5 miles	10, 7	0
DEP BMAPs	10	0
DEP Distance to Major Rivers (100, 500, 1000 meters)	6,5,4	4
Total Possible	101	15

GIS Evaluation score is converted to a 1 to 5 value (low to high)

FINAL DEAR SCORE = 2 – Medium low water quality protection benefits.

GOAL E:

INCREASE NATURAL RESOURCE-BASED PUBLIC RECREATIONAL AND EDUCATIONAL OPPORTUNITIES

Measure E1-E3

The South Prong project is proposed for less-than-fee acquisition with no public access.

The current landowner shares his enthusiasm for the outdoors by using the property for educational purposes and regularly opens the property to FWC Youth Hunts, Boy Scout troops and 4-H Clubs for camping and educational trips, as well as to students at University of Florida's School of Forest Resources and Conservation for training. The landowner has hosted a number of University of Florida IFAS, FFS, and FWC property tours. Facilities have been developed onsite for these purposes and include a restroom, gun range, and indoor and outdoor meeting areas.

GOAL F:**PRESERVE SIGNIFICANT ARCHAEOLOGICAL OR HISTORIC SITES**

At this time, all acres are being managed for sustainable multiple resource management such as timber production, wildlife habitat, soil and water, and recreation.

Measure F1:

The increase in the number of and percentage of historic and archaeological properties listed in the Florida Master Site File or National Register of Historic Places which are protected or preserved for public use.

The South Prong of the St. Mary's River Florida Forever project would not meet Measure F1 as project contains no archaeological sites recorded or known to exist.

Measure F2:

The increase in the number and percentage of historic and archaeological properties that are in state ownership.

The South Prong of the St. Mary's River Florida Forever project would not meet Measure F2 as project contains no archaeological sites recorded or known to exist.

CULTURAL RESOURCES:

There are no cultural resources recorded or known to exist on this Florida Forever project. To date, no portion of this property has been professionally surveyed for archaeological and/or historical sites. The site file shows 40 historic structures, 58 archaeological sites, and two resource groups as being located within a five-mile radius of this property.

FIELD OBSERVATIONS:

There were no archaeological or historical resources observed on the project and the landowners are unaware of any unrecorded resources known to exist on the South Prong of the St. Mary's River Florida Forever project. There is potential for sites to exist; however, given that the much of the uplands have been subject to intensive silvicultural practices, any unrecorded sites that may exist could potentially be damaged.

The dangers to all archaeological resources on the project come in the form of ground disturbance from silvicultural practices. Should this project be acquired as less-than-fee, it is recommended that all known unrecorded cultural resources are recorded in the Florida Master Site File noting their current condition and for conservation easement land owners to be made aware of their responsibility to not willingly disturb or destroy any newly discovered cultural resources protected on their property. Should any artifacts be discovered on the project in the future, the Division of Historical Resources (DHR) recommends leaving them in place and contacting a DHR archaeologists.

GOAL G:**INCREASE THE AMOUNT OF FORESTLAND AVAILABLE FOR SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES**

Measure G1:

The number of acres acquired that are available for sustainable forest management.

The FFME reports approximately 784 acres (68% of site) could be available for sustainable forest management, divided between Priority 1 (580 acres), Priority 2 (155), Priority 3 (22 acres), and Priority 5 (26 acres). Prioritization is based on 4 criteria set by the FFS: whether trees are natural or planted, size of tract, distance to market, and hydrology. Priority 5 areas are considered “potential” pinelands; agricultural areas that could be restored to pineland.

Measure G3:

The number of acres of forestland acquired that will serve to maintain natural groundwater recharge functions.

The FFME reports approximately 317 acres (28%) would provide forestland to maintain natural groundwater recharge functions.

Measure G4:

The percentage and number of acres identified for restoration actually restored by reforestation.

No acreage was observed that needed restoration. The landowner is slowly converting slash pine stands into longleaf pine stands in areas that have suitable soil.

FLORIDA FORVER CRITERIA

The proposed project meets the following Florida Forever criteria (section 259.105, F.S.)

- The project meets multiple goals described in subsection (4).
- The project may be acquired, in whole or in part, using alternatives to fee simple, including but not limited to, tax incentives, mitigation funds, or other revenues, the purchase of development rights, hunting rights, agricultural or silvicultural rights, or mineral rights or obtaining conservation easements or flowage easements.

The Acquisition and Restoration Council shall give increased priority to:

- Projects that can be acquired in less than fee ownership, such as a permanent conservation easement.
- Projects that contribute to improving the quality and quantity of surface water and groundwater.

MANAGEMENT

If acquired as a perpetual conservation easement, primary management responsibility would remain with the landowner. Periodic monitoring of the site’s management would occur to confirm continued compliance with the conditions of the easement. Monitoring would be coordinated by the Florida Department of Environmental Protection (DEP), Division of State Lands (DSL), Office of Environmental Services (OES).

FUNDING SOURCES

Florida Forever.

OWNERSHIP PATTERN AND ACQUISITION PLANNING

Title and Legal Access, Jurisdictional and Sovereignty Lands, Legal Issues

The property is accessible from a public road. Record of title, a designation of jurisdictional and sovereignty Lands and any other legal Issues will be determined at the time of acquisition and are not known at this time.

Known Encumbrances (easement, long-term leases, restrictive covenants, etc.)

The easements and encumbrances of record would be determined during the appraisal mapping. A current title insurance commitment would be obtained, or the owner's title insurance policy would be reviewed if the policy is available. The easements and encumbrances would be depicted or noted on the appraisal map.

Description and location of hazardous waste sites, dumps, borrow pits

There are no apparent contamination sites within the project based on the application.

Estimated Cost of Appraisal and Mapping

DEP Bureau of Appraisal estimates \$10,000 to \$20,000 in appraisal fees.

Acquisition Phases

Subject to funding, the South Prong of the St. Mary's River Florida Forever project will be phased based upon price.

GOVERNMENT PLANNING AND DEVELOPMENT**Contribution to Recreation and Open Space Needs**

The 1,146-acre South Prong site consists almost entirely of pine flatwoods, cypress swamps, and hydric hammock. It is home to a diverse list of wildlife. The site has multiple uses including an active wildlife habitat, recreational hunting site, and living classroom.

Potential for Losing Significant Natural Attributes or Recreational Open Spaces

The property has significant natural attributes, it is located at the headwaters of the South Prong of the St. Marys River, additionally the site contains over 600-acres of managed pine forest including loblolly, slash, and longleaf pine, and a natural forest consisting of mixed hardwoods, pine flatwoods, and cypress swamps. The property has supported multiple black bears both local and migrating, as well as Red Cockaded Woodpeckers and Gopher Tortoises. Additionally, Hooded Pitcher Plants and the State endangered Chapman's Fringed Orchid are documented on the property. The headwater swamp for the South Prong protects the waters of the St. Marys River, a regionally significant hydrologic system.

Low to Medium Potential: While this site and the surrounding area are primarily rural agricultural land in nature, portions of Baker County have started to develop and be considered as bedroom communities for the City of Jacksonville. A planned East-West corridor has been proposed by the County and would run along 1-10 a mile north of the site. Current land use designations surrounding the site include primarily Agriculture A (1 DU/10-acres) and Agriculture B (1 DU/7.5-acres) as well as some Very Low Density Residential (1 DU/7.5-acres). A mile to the north along 1-10 Industrial, Commercial, and Medium Density Residential uses are found. The property owner, Mr. Moore intends to continue his stewardship and does not plan to develop any portion of the property and would like development by future owners to be limited.

Potential for Being Subdivided

Low Potential: The site consists of land designated Agriculture A (1 DU/10-acres) and Agriculture B (1 DU/7.5-acres) which would not allow for residential scale development. Additionally, the property is located within Tier 1 of the Florida Wildlife Corridor and could provide an important link between the Osceola National Forest, Olustee State Park, and the Raiford to Osceola Greenway Florida Forever project area.

Zoning and Densities within the Project Boundaries

The site is zoned almost entirely AG 10 with small portions zoned as AG 7.5. Densities allowed for residential development within these districts are 1 DU/10 acres and 1 DU/7.5 acres respectively.

Existing Land Uses and Future Land Use Designations

The property is currently utilized as a timber and wildlife management operation including a managed pine forest and hunting, fishing, and outdoor recreation areas. The site is designated Agriculture A and Agriculture B on the Future Land Use Map.

Development Potential

Low Potential: The site consists of almost entirely of the Agriculture A land use category which limits development to 1 DU/10 acres. Considering the 1,146 acres included in the application, the site has the maximum development potential of approximately 114 dwelling units.

Transportation Planning Issues

The proposed project is located in the Florida Department of Transportation's (FDOT) District 2 (Baker County). FDOT finds no adverse impacts from this proposal.

ACKNOWLEDGEMENTS

Staff in DSL and the FNAI determined the final project recommendations. Sine Murray and Hannah Turbiville in OES were responsible for the overall coordination of this report, with contributions from the following:

- Florida Department of State, Division of Historical Resources – Joshua Goodwin
- Florida Forest Service – Cat Ingram & Holly Tucker
- Department of Economic Opportunity – Ben Naselius & Barbara Powell
- DEP Division of State Lands, Bureau of Appraisal – Jay Scott & Amy Phillips
- Florida Fish and Wildlife Conservation Commission – Laramie Ferry, Scotland Talley, & Matthew Pollock
- Florida Natural Areas Inventory – Geoffrey Parks, Geena Hill & Nathan Pasco
- DEP Division of Environmental Assessment and Restoration – Kevin Coyne
- Florida Department of Transportation – Jennifer Carver
- St. Johns River Water Management District – Brian Emmanuel

APPENDICES

Appendix A:

Final FF measures table: Report requirement 259.105 (15)d, prepared by FNAI

South Prong of St. Mary's River: Florida Forever Measure Evaluation 20220225

GIS ACRES = 1,147

MEASURES	Resource Acres ¹	% of project
B1: Strategic Habitat Conservation Areas		
Priority 1	0	0%
Priority 2	352	31%
Priority 3	729	64%
Priority 4	0	0%
Priority 5	28	2%
Total Acres	1,109	97%
B2: FNAI Habitat Conservation Priorities		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	85	7%
Priority 5	579	50%
Priority 6	484	42%
Total Acres	1,147	100%
B3: Ecological Greenways		
Priority 1	1,147	100%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	0	0%
Priority 5	0	0%
Total Acres	1,147	100%
B4: Under-represented Natural Communities		
Upland Glade (G1)	0	0%
Pine Rockland (G1)	0	0%
Scrub and Scrubby Flatwoods (G2)	0	0%
Rockland Hammock (G2)	0	0%
Dry Prairie (G2)	0	0%
Seepage Slope (G2)	0	0%
Sandhill (G3)	0	0%
Sandhill Upland Lake (G3)	0	0%
Upland Pine (G3)	0	0%
Mesic/Wet Flatwoods (G4)	170	15%
Upland Hardwood Forest (G5)	0	0%
Total Acres	170	15%
B6: Occurrences of FNAI Tracked Species		
G1	0	
G2	1	
G3	0	
G4	1	
G5	0	
Total	2	
C4: Natural Floodplain Function		
Priority 1	0	0%
Priority 2	25	2%
Priority 3	430	37%
Priority 4	233	20%
Priority 5	0	< 1%
Priority 6	0	0%
Total Acres	688	60%

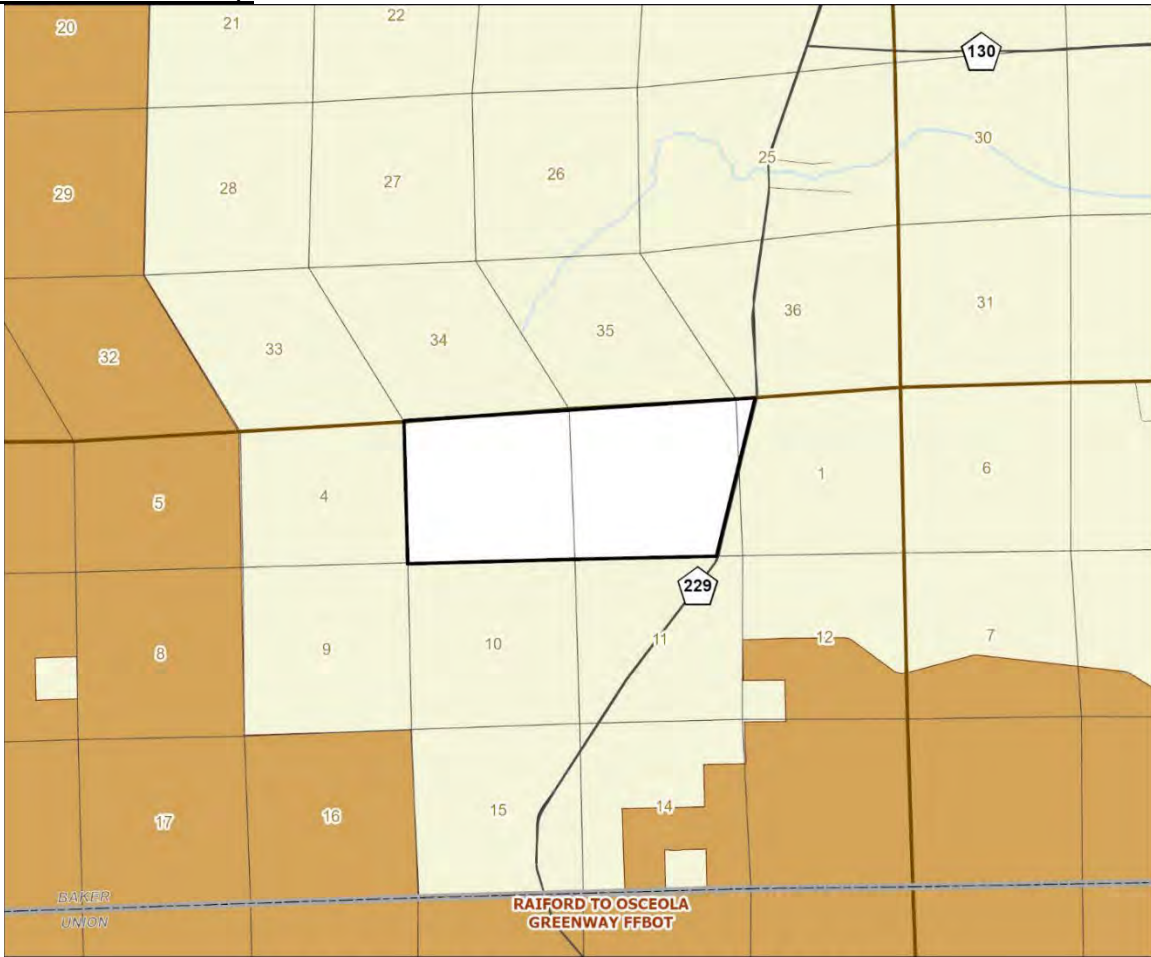
MEASURES (continued)	Resource Acres ¹	% of project
C5: Surface Water Protection		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	0	0%
Priority 4	60	5%
Priority 5	292	25%
Priority 6	767	67%
Priority 7	0	0%
Total Acres	1,119	98%
C7: Fragile Coastal Resources		
Fragile Coastal Uplands	0	0%
Imperiled Coastal Lakes	0	0%
Coastal Wetlands	0	0%
Total Acres	0	0%
C8: Functional Wetlands		
Priority 1	0	0%
Priority 2	25	2%
Priority 3	323	28%
Priority 4	104	9%
Priority 5	0	0%
Priority 6	0	0%
Total Acres	451	39%
D3: Aquifer Recharge		
Priority 1	0	0%
Priority 2	0	0%
Priority 3	388	34%
Priority 4	759	66%
Priority 5	1	< 1%
Priority 6	0	0%
Total Acres	1,147	100%
E2: Recreational Trails (miles)		
<small>(prioritized trail opportunities from Office of Streamways and Trails & UIC - Florida)</small>		
Land Trail Priorities	0.0	
Land Trail Opportunities	0.0	
Total Miles	0.0	
F2: Arch. & Historical Sites (number)		
	0	0 sites
G1: Sustainable Forestry		
Priority 1	580	51%
Priority 2	155	13%
Priority 3	22	2%
Priority 4	0	0%
Priority 5 - Potential Pinelands	26	2%
Total Acres	784	68%
G3: Forestland for Recharge		
	317	28%

¹Acres of each resource in the project and percentage of project represented by each resource are listed except where noted. This analysis converts site boundary into pixels, which causes slight differences from GIS acres; this effect is most noticeable on small sites.

Appendix B:



Final FF proposal boundary maps: Report requirement 259.105 (15)k, prepared by FNAI

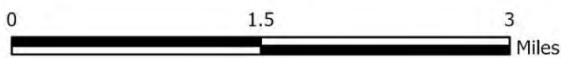
B1: Florida Forever map



**SOUTH PRONG OF THE ST. MARY'S RIVER
FLORIDA FOREVER PROPOSAL**

BAKER COUNTY

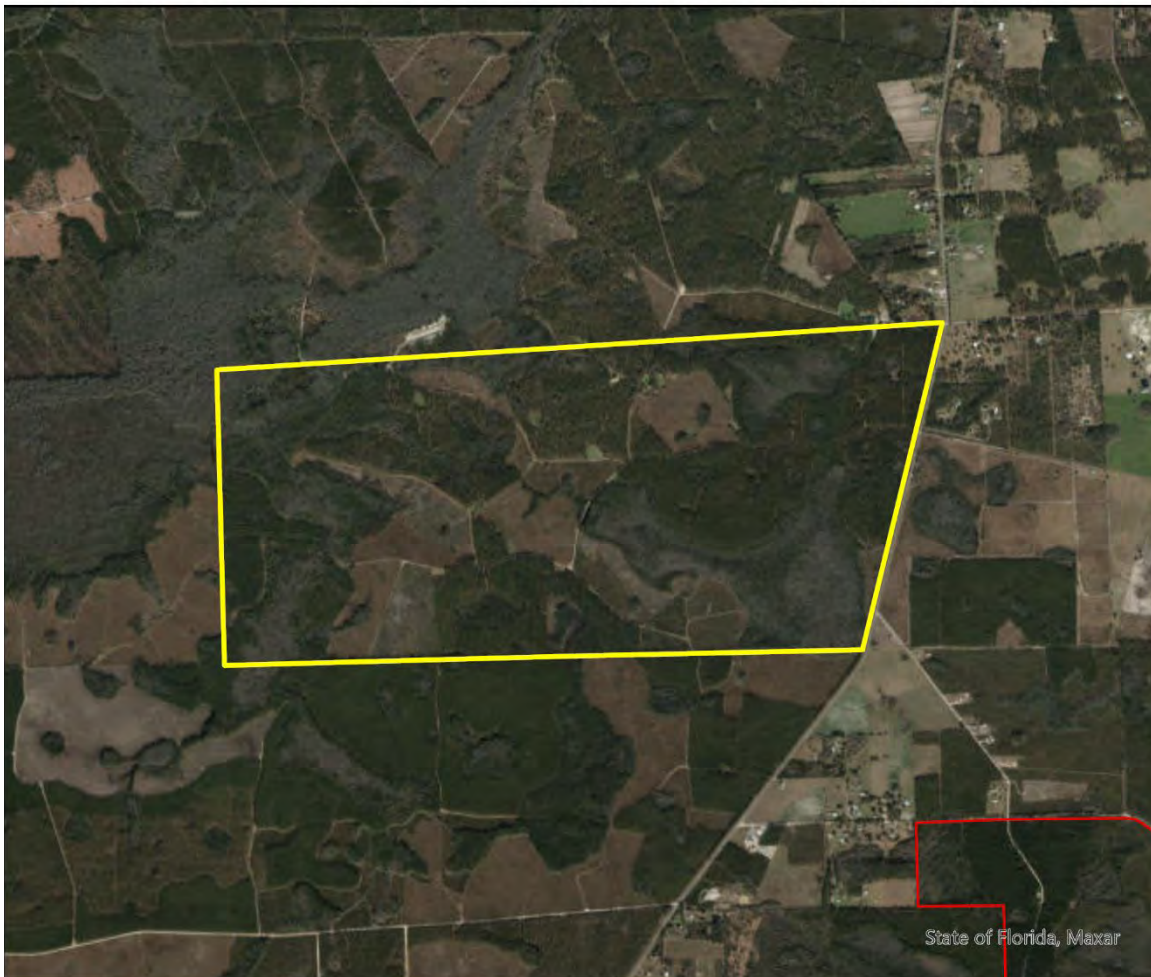
-  Proposed Florida Forever BOT Project
-  Florida Forever BOT Projects



B2: Aerial map

South Prong of the St. Mary's River Florida Forever Proposal

FLORIDA FOREVER BOARD OF TRUSTEES PROPOSED PROJECT BOUNDARY AS OF FEBRUARY 2022



State of Florida, Maxar

Map Produced by: N. Pasco, February 2022

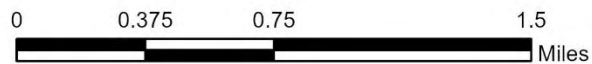
Background: World Imagery Resolution = 0.3 meter



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	Florida Forever Proposal Boundary
	Florida Forever BOT Projects



Appendix C:

PROPERTY ID #'S FOR FINAL RECOMMENDED BOUNDARY

BAKER COUNTY

COUNTY	PARCEL ID	OWNER	ACRES PER TAX CARD	JUST VALUE	ASSESSED VALUE	PARCEL DESIGNATION
Baker	03-4S-20-0000-0000-0010	M&M Dairy Inc	578	\$536,000.00	\$157,110.00	Essential
Baker	02-4S-20-0000-0000-0010	M&M Dairy Inc	553	\$553,000.00	\$159,025.00	Essential
Baker	01-4S-20-0000-0000-0050	M&M Dairy Inc	15	\$60,000.00	\$6,375.00	Essential
TOTALS			1,146	\$1,149,000.00		

Appendix D:**Imperiled Species FNAI Ranking Definitions**

FNAI
Definitions of imperiled species ranks and conservation 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

2019-04-19

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FNAI
Definitions of imperiled species ranks and conservation status

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 = Partial status: some but not all of the species' infraspecific taxa have federal
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.

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(SIA) = 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 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: <<http://www.doacs.state.fl.us/pi/>>.

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.
N = Not currently listed, nor currently being considered for listing.

Appendix E:

Site Visit Photos



1. Pine plantation



2. Recently planted longleaf pine



3. Former pine plantation returning to mesic flatwoods



5. Ecotone between basin swamp and pine plantation



6. Hooded pitcherplant (*Sarracenia minor*)



7. Spoon-leaved sundew (*Drosera intermedia*)