

TWELVE MILE SWAMP CONSERVATION AREA

LAND MANAGEMENT PLAN

ST. JOHNS COUNTY, FLORIDA



ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

ACQUISITION AND RESTORATION COUNCIL

XXXXXX

GOVERNING BOARD

XXXXXX

ACQUISITION AND RESTORATION COUNCIL DRAFT XXXXXXXXXX



EXECUTIVE SUMMARY

LEAD AGENCY: St. Johns River Water Management District (District)

COMMON NAME OF THE PROPERTY: Twelve Mile Swamp Conservation Area (TMSCA or the Property)

LOCATION: St. Johns County

ACREAGE TOTAL: 21,161

ACREAGE BREAKDOWN:

Natural Community	Acres	Natural Community	Acres
Basin swamp	3,085	Restoration wet prairie	507
Baygall	167	Scrub	2
Bottomland forest	165	Scrubby flatwoods	50
Depression marsh	63	Successional hardwood forest	109
Dome swamp	653	Wet flatwoods	6
Hydric hammock	7,099	Xeric hammock	10
Mesic flatwoods	88	Altered Land	Acres
Restoration mesic flatwoods	5,106	Artificial pond	60
Restoration scrub	1	Borrow area	3
Restoration scrubby flatwoods	924	Utility corridor	26
Restoration wet flatwoods	3,037		

LEASE/MANAGEMENT AGREEMENT NO.: 4400

USE: Single:

Multiple: X

Management Responsibilities:

Agency

District

Responsibilities

Lead Manager

Florida Department of Environmental Protection (DEP), Board of Trustees of the Internal Improvement Trust Fund (TIITF)

Lessor

DESIGNATED LAND USE: Conservation

SUBLEASES: None

ENCUMBRANCES: Two access easements; one utility easement

TYPES OF ACQUISITION: Fee simple conversion from conservation easement purchased using funding from Florida Department of Transportation (FDOT) Mitigation, mitigation donations, Preservation 2000 (P2000), and TIITF.

UNIQUE FEATURES: Protection of Twelve Mile Swamp, which is the headwaters for many tributaries in the region.

CULTURAL AND HISTORICAL RESOURCES: Seven documented cultural sites are found on the Property.

MANAGEMENT NEEDS: Habitat restoration and enhancement, forest resource management, invasive species management, and recreation management.

ACQUISITION NEEDS/ACREAGE: An optimal boundary has been developed.

SURPLUS LANDS/ACREAGE: No parcels are identified for surplus though a state road right-of-way could be constructed within the scope of this plan. This potential state road was planned before the acquisition of the Property.

PUBLIC INVOLVEMENT: Management Advisory Group meeting and public hearing.

DO NOT WRITE BELOW THIS LINE (FOR DIVISION OF STATE LANDS USE ONLY)

ARC Approval Date: _____

TIITF Approval Date: _____

Comments:

Land Management Plan Compliance Checklist

Section A: Acquisition Information Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
1	The common name of the property.	18-2.018 and 18-2.021	
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 and 18-2.021	
3	Degree of title interest held by the TIITF, including reservations and encumbrances such as leases.	18-2.021	
4	The legal description and acreage of the property.	18-2.018 and 18-2.021	
5	A map showing the approximate location and boundaries of the property, and the location of any structures or improvements to the property.	18-2.018 and 18-2.021	
6	An assessment as to whether the property, or any portion, should be declared surplus. <i>Provide information regarding assessment and analysis in the plan and provide corresponding map.</i>	18-2.021	
7	Identification of other parcels of land within or immediately adjacent to the property that should be purchased because they are essential to management of the property. <i>Please clearly indicate parcels on a map.</i>	18-2.021	
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	
9	A statement of the purpose for which the lands were acquired, the projected use or uses as defined in 253.034 and the statutory authority for such use or uses.	259.032	
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	

Section B: Use Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
11	The designated single use or multiple use management for the property, including use by other managing entities.	18-2.018 and 18-2.021	
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 and 18-2.021	
13	A description of alternative or multiple uses of the property considered by the lessee and a statement detailing why such uses were not adopted.	18-2.018	
14	A description of the management responsibilities of each entity involved in the property's management and how such responsibilities will be coordinated.	18-2.018	
15	Include a provision that requires that the managing agency consult with the Division of Historical Resources, Department of State before taking actions that may adversely affect archeological or historical resources.	18-2.021	
16	Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.	18-2.021	

17	A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	259.032	
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.	18-2.021	
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	
20	An assessment of the impact of planned uses on the renewable and non-renewable resources of the property, including soil and water resources, and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to compensate/mitigate damage caused by such uses, including a description of how the manager plans to control and prevent soil erosion and soil or water contamination.	18-2.018 and 18-2.021	
21	*For managed areas larger than 1,000 acres, an analysis of the multiple-use potential of the property which shall include the potential of the property to generate revenues to enhance the management of the property provided that no lease, easement, or license for such revenue-generating use shall be entered into if the granting of such lease, easement or license would adversely affect the tax exemption of the interest on any revenue bonds issued to fund the acquisition of the affected lands from gross income for federal income tax purposes, pursuant to Internal Revenue Service regulations.	253.036 and 18-2.021	
22	If the lead managing agency determines that timber resource management is not in conflict with the primary management objectives of the managed area, a component or section, prepared by a qualified professional forester, that assesses the feasibility of managing timber resources pursuant to section 253.036, F.S.	18-021	
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	

Section C: Public Involvement Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	
25	The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.	259.032	
26	LMPs and LMP updates for parcels over 160 acres shall be developed with input from an advisory group who must conduct at least one public hearing within the county in which the parcel or project is located. <i>Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.</i>	259.032	
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	
28	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. <i>Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.</i>	253.034 and 259.032	

29	The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. <i>Include manager's replies to the team's findings and recommendations.</i>	259.036	
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	
31	If manager is not in agreement with the management review team's findings and recommendations in finalizing the required 10-year update of its management plan, the managing agency should explain why they disagree with the findings or recommendations.	259.036	

Section D: Natural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
32	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding soil types. <i>Use brief descriptions and include USDA maps when available.</i>	18-2.021	
33	Insert FNAI based natural community maps when available.	ARC consensus	
34	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding outstanding native landscapes containing relatively unaltered flora, fauna and geological conditions.	18-2.021	
35	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding unique natural features and/or resources including but not limited to virgin timber stands, scenic vistas, natural rivers and streams, coral reefs, natural springs, caverns and large sinkholes.	18-2.018 and 18-2.021	
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	
37	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding mineral resources, such as oil, gas and phosphate, etc.	18-2.018 and 18-2.021	
38	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding fish and wildlife, both game and non-game, and their habitat.	18-2.018 and 18-2.021	
39	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding State and Federally listed endangered or threatened species and their habitat.	18-2.021	
40	The identification or resources on the property that are listed in the Natural Areas Inventory. <i>Include letter from FNAI or consultant where appropriate.</i>	18-2.021	
41	Specific description of how the managing agency plans to identify, locate, protect and preserve or otherwise use fragile, nonrenewable natural and cultural resources.	259.032	
42	Habitat Restoration and Improvement.	259.032 and 253.034	
42-A.	Describe management needs, problems and a desired outcome and the key management activities necessary to achieve the enhancement, protection and preservation of restored habitats and enhance the natural, historical and archeological resources and their values for which the lands were acquired.	↓	
42-B.	Provide a detailed description of both short (2-year planning period) and long-term (10-year planning period) management goals, and a priority schedule based on the purposes for which the lands were acquired and include a timeline for completion.		

42-C.	The associated measurable objectives to achieve the goals.		
42-D.	The related activities that are to be performed to meet the land management objectives and their associated measures. <i>Include fire management plans - they can be in plan body or an appendix.</i>		
42-E.	A detailed expense and manpower budget in order to provide a management tool that facilitates development of performance measures, including recommendations for cost-effective methods of accomplishing those activities.		
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. <i>See footnote.</i>	253.034	
44	Sustainable Forest Management, including implementation of prescribed fire management.	253.034, 259.032 and 18-2.021,	
44-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
44-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		
44-C.	Measurable objectives (see requirement for #42-C).		
44-D.	Related activities (see requirement for #42-D).		
44-E.	Budgets (see requirement for #42-E).		
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration.	259.032 and 253.034	
45-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
45-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		
45-C.	Measurable objectives (see requirement for #42-C).		
45-D.	Related activities (see requirement for #42-D).		
45-E.	Budgets (see requirement for #42-E).		
45-F	Assess the feasibility of managing the lands > 40 contiguous acres as a recipient site for gopher tortoises consistent with rules of the Fish and Wildlife Conservation Commission, as prepared by the agency or cooperatively with a Fish and Wildlife Conservation Commission wildlife biologist.	259.105	
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	
46	***Quantitative data description of the land regarding an inventory of invasive plants and associated acreage. <i>See footnote.</i>	253.034	
47	Place the Arthropod Control Plan in an appendix. If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the management unit.	BOT requirement via lease language	
48	Invasive species maintenance and control.	259.032 and 253.034	
48-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
48-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		

48-C.	Measurable objectives (see requirement for #42-C).		
48-D.	Related activities (see requirement for #42-D).		
48-E.	Budgets (see requirement for #42-E).		
Section E: Water Resources			
Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
49	A statement as to whether the property is within and/or adjacent to an aquatic preserve or a designated area of critical state concern or an area under study for such designation. <i>If yes, provide a list of the appropriate managing agencies that have been notified of the proposed plan.</i>	18-2.018 and 18-2.021	
50	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding water resources, including water classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Water under Rule 62-302.700, F.A.C.	18-2.021	
51	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding swamps, marshes and other wetlands.	18-2.021	
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034	
53	Hydrological Preservation and Restoration.	259.032 and 253.034	
53-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
53-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		
53-C.	Measurable objectives (see requirement for #42-C).		
53-D.	Related activities (see requirement for #42-D).		
53-E.	Budgets (see requirement for #42-E).		

Section F: Historical, Archeological and Cultural Resources			
Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
54	**Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding archeological and historical resources. <i>Include maps of all cultural resources except Native American sites, unless such sites are major points of interest that are open to public visitation.</i>	18-2.018, 18-2.021 and per the Division of Historical Resources request	
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	
56	A description of actions the agency plans to take to locate and identify unknown resources such as surveys of unknown archeological and historical resources.	18-2.021	
57	Cultural and Historical Resources.	259.032 and 253.034	
57-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
57-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		

57-C.	Measurable objectives (see requirement for #42-C).		
57-D.	Related activities (see requirement for #42-D).		
57-E.	Budgets (see requirement for #42-E).		

**While maps of Native American sites should not be included in the body of the management plan, the DSL urges each managing agency to provide such information to the Division of Historical Resources for inclusion in their proprietary database. This information should be available for access to new managers to assist them in developing, implementing and coordinating their management activities.

Section G: Facilities (Infrastructure, Access, Recreation)

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
58	***Quantitative data description of the land regarding an inventory of infrastructure and associated acreage. <i>See footnote.</i>	253.034	
59	Capital Facilities and Infrastructure	259.032 and 253.034	
59-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
59-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		
59-C.	Measurable objectives (see requirement for #42-C).		
59-D.	Related activities (see requirement for #42-D).		
59-E.	Budgets (see requirement for #42-E).		
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	
61	Public Access and Recreational Opportunities	259.032 and 253.034	
61-A.	Management needs, problems and a desired outcome (see requirement for #42-A).	↓	
61-B.	Detailed description of both short and long-term management goals (see requirement for #42-B).		
61-C.	Measurable objectives (see requirement for #42-C).		
61-D.	Related activities (see requirement for #42-D).		
61-E.	Budgets (see requirement for #42-E).		

Section H: Other/ Managing Agency Tools

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
62	Place this LMP Compliance Checklist at the front of the plan.	ARC and managing agency consensus	
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	
64	If this LMP is a 10-year update, note the accomplishments since the drafting of the last LMP set forth in an organized (categories or bullets) format.	ARC consensus	
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	

66	Summary budget for the scheduled land management activities of the LMP including any potential fees anticipated from public or private entities for projects to offset adverse impacts to imperiled species or such habitat, which fees shall be used to restore, manage, enhance, repopulate, or acquire imperiled species habitat for lands that have or are anticipated to have imperiled species or such habitat onsite. The summary budget shall be prepared in such a manner that it facilitates computing an aggregate of land management costs for all state-managed lands using the categories described in s. 259.037(3) which are resource management, administration, support, capital improvements, recreation visitor services, law enforcement activities.	253.034	
67	Cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired, include recommendations for cost-effective methods in accomplishing those activities.	259.032	
68	A statement of gross income generated, net income, and expenses.	18-2.018	

*** = The referenced inventories shall be of such detail that objective measures and benchmarks can be established for each tract of land and monitored during the lifetime of the plan. All quantitative data collected shall be aggregated, standardized, collected, and presented in an electronic format to allow for uniform management reporting and analysis. The information collected by the DEP pursuant to s. 253.0325(2) shall be available to the land manager and his or her assignee.

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1. Introduction and General Information

The Twelve Mile Swamp Conservation Area (TMSCA or Property) comprises approximately 21,161 acres in St. Johns County. Many natural communities can be found on the TMSCA, with a majority of the Property consisting of hydric hammock and flatwoods. These natural areas provide valuable ecosystem services and form the wetlands of Twelve Mile Swamp. Recreational opportunities include hiking, bicycling, horseback riding, photography, and wildlife viewing. Hunting is a proposed recreational opportunity.

The Property is managed by the St. Johns River Water Management District (District) for the conservation and protection of natural and cultural resources as well as nature-based public outdoor recreation. A wide range of resource management actions will be conducted on the TMSCA each year including prescribed burning or fire surrogate treatments, habitat restoration and enhancement, invasive species maintenance and control, recreation management, and cultural resources monitoring and protection.

This document provides guidelines for land management activities to be implemented at the Property over the next 10 years.

1.1 Location

The Property lies within several sections of Townships 5 and 6 South, Range 28 East and Townships 6 and 7 South, Range 29 East. The Property is located within the Lower St. Johns River Basin and lies within St. Johns County.

The Property is located approximately 4 four miles northwest of St. Augustine. It is situated west of U.S Highway 1, north of State Road (S.R.) 16, and east of Interstate 95 (I-95). (Figure 1).

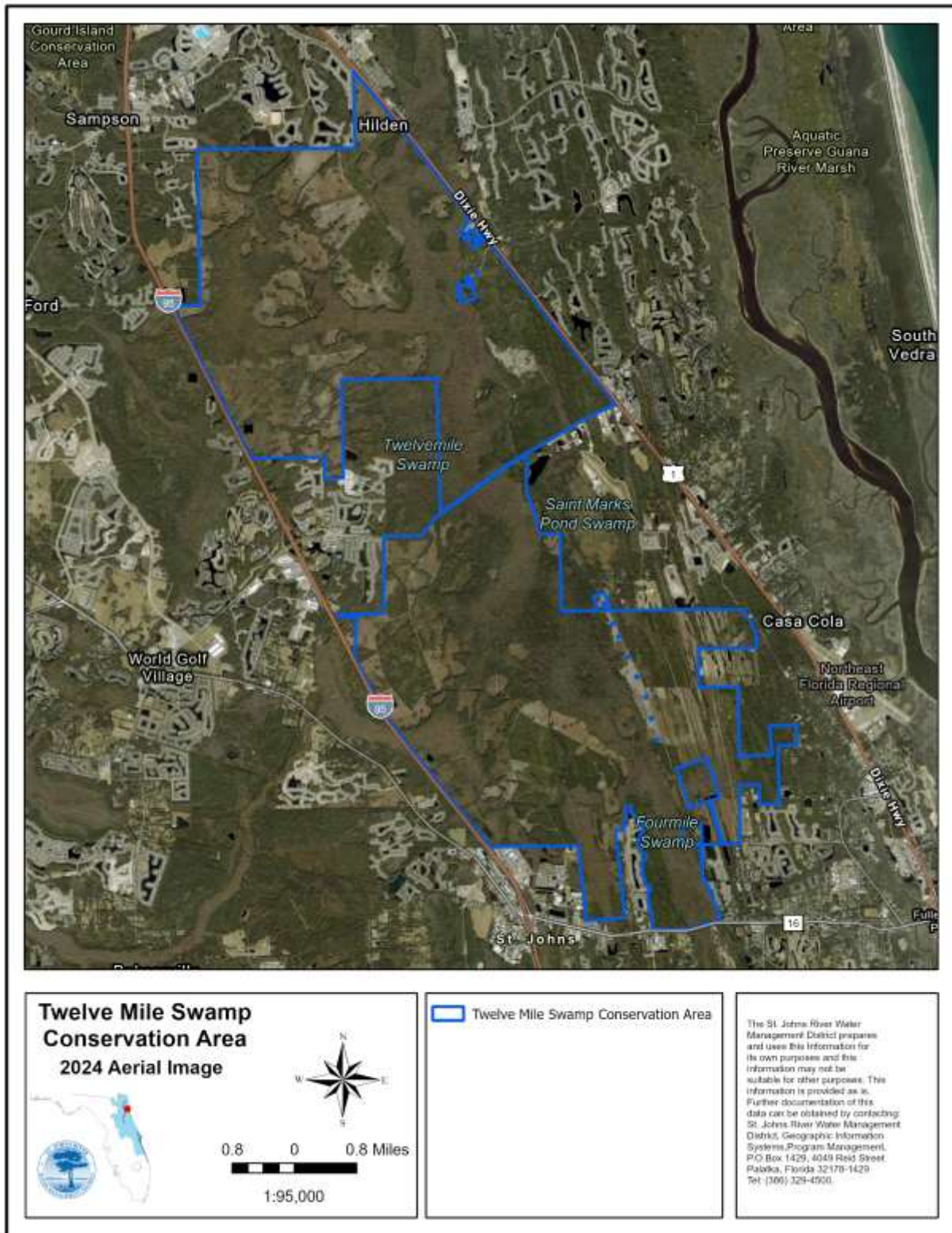


Figure 1. Twelve Mile Swamp Conservation Area Aerial Imagery

1.2 Acquisition

Acquisition of the TMSCA began in 2001 and currently consists of five parcels totaling 21,161 deeded acres (Figure 2). All acreage in this section is derived from deed and parcel information. There are three deeded access easements and one deeded utility easement.

The five parcels that currently comprise the Property are listed below.

Cummer Twelve Mile A B and G – 1997-003-P1 (20,351 acres)

This parcel was purchased jointly by the District and TIITF on February 20, 2001, using TIITF and Preservation 2000 (P2000) bond funds. The TIITF and the District each hold 50% undivided interest in this parcel. The total acquisition cost for this parcel is \$23,334,041.52

In April 2004, a property exchange occurred between the District, TIITF, and Sylvan West Partnership, Ltd. (Sylvan). The District and TIITF both conveyed to Sylvan their fee interest in a 1,189-acre parcel on the west side of I-95 (Parcel C), which was separated from the parent tract. In exchange, TIITF received full-fee ownership on an approximately 228-acre parcel adjacent to Faver-Dykes State Park and the District retained a conservation easement over 1,023 acres of the 1,189-acre Parcel C, and received a cash equity boot of \$169,000. In 2007, the District conveyed parcels D, E, and F (a total of 358 acres), all also isolated from the parent tract by I-95, to Freedom Commerce Centre after having the title conveyed from the TIITF. In exchange, the District received full fee ownership of 92.92 acres, encumbered by a regulatory conservation easement, and located approximately 10 miles northwest of the TMSCA. This site is within the same regulatory basin as the TMSCA.

West Augustine Land Company – 2009-022-P1 (569 acres)

This parcel was purchased by the District on July 30, 2010, utilizing Florida Department of Transportation (FDOT) funds for a total cost of \$3,000,000.

Twelve Mile Swamp St. Johns County Donation – 2011-004-P1 (80 acres)

This parcel was donated to the District by St. Johns County on May 26, 2011. This parcel is encumbered by a regulatory conservation easement held by the District.

FDG Cordova Palms LLC – 2016-016-P1 (141 acres)

This parcel was donated to the District by FDOT on August 8, 2018, in exchange for easement interest on 128 acres of Cummer Twelve Mile A B and G parcel (1997-003-P1) for the construction, operation, maintenance, and improvement of future S.R. 313, a planned limited access road bypassing the west side of St. Augustine. The location of the road has been established since 1996 (Figure 3), prior to the purchase of the TMSCA, and no construction has occurred at the time of this writing.

A&S Land Development Company – 2025-019-P1 (20 acres)

This parcel was donated to the District by the grantor on April 28, 2026, in exchange for a partial release of a nearby regulatory conservation easement. No cost was incurred by the District in relation to this donation.

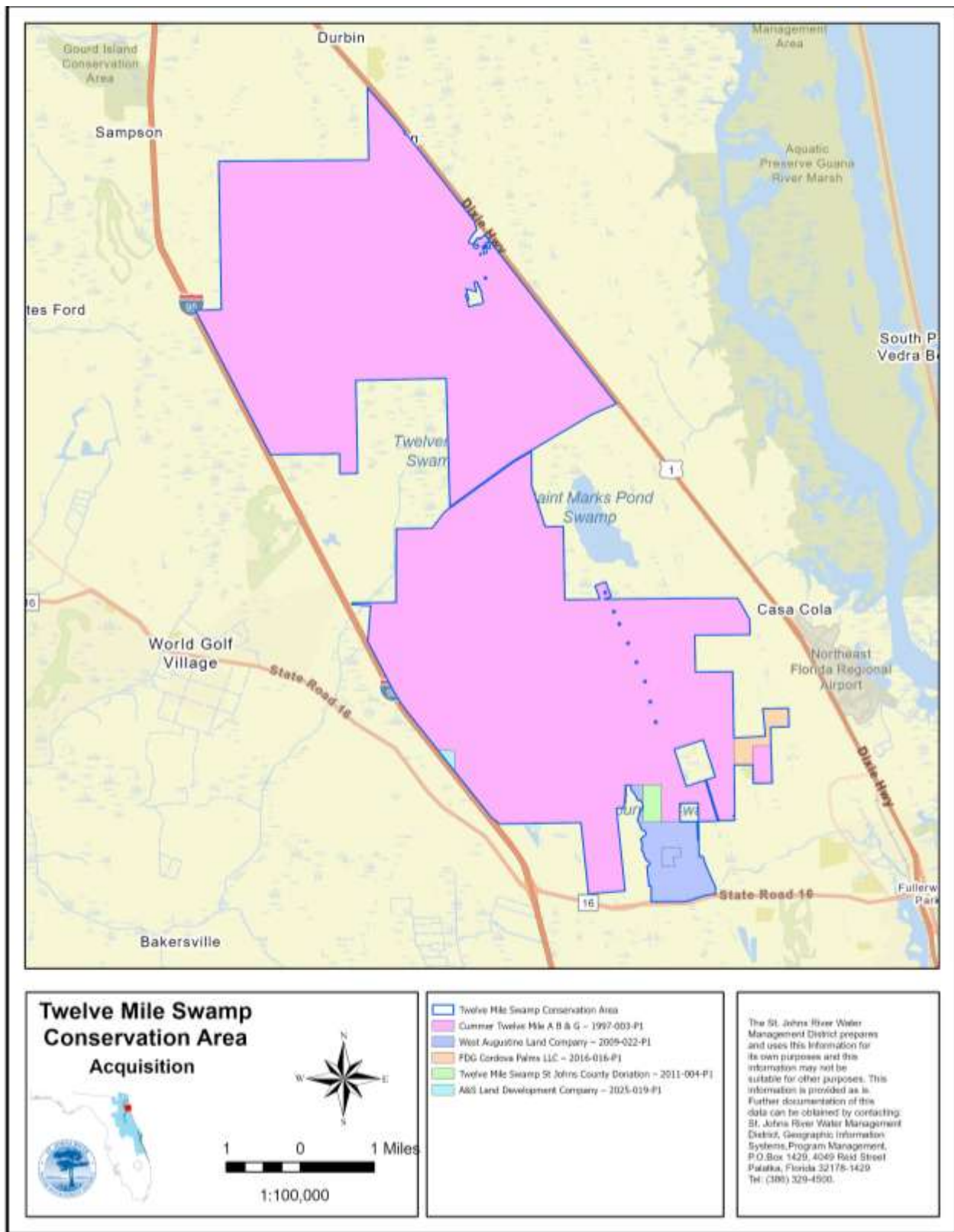


Figure 2. Twelve Mile Swamp Conservation Area Acquisition History

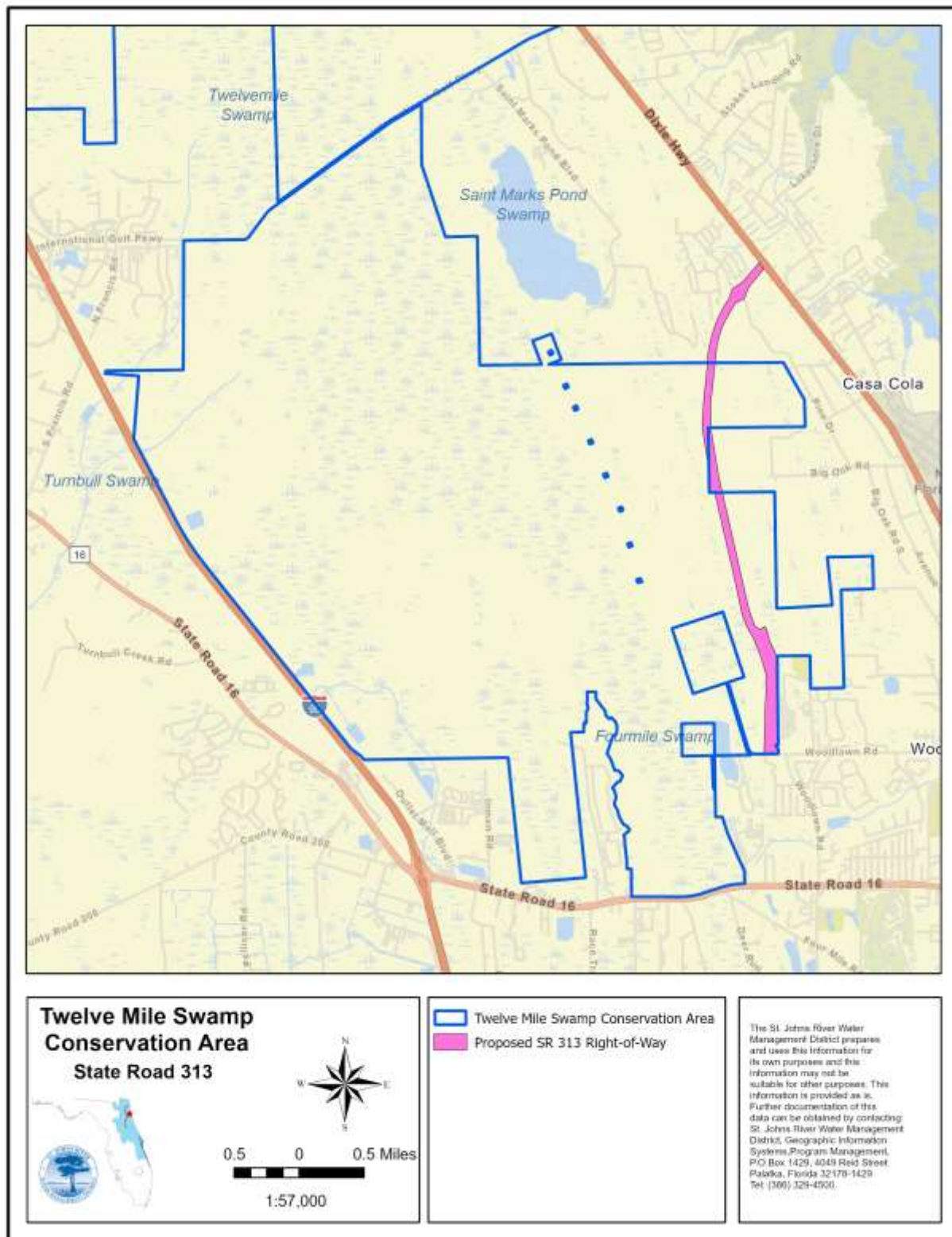


Figure 3. Proposed State Road 313 Right-of-Way

1.3 Title Interest and Encumbrances

Four of the five parcels comprising the Property are owned 100% full fee by the District (West Augustine Land Company, Twelve Mile Swamp St. Johns County Donation, FDG Cordova Palms LLC, and A&S Land Development Company). The fifth parcel, Cummer Twelve Mile A B & G, which is jointly held by the District and the TIITF, is encumbered by Lease Agreement 4400 wherein the TIITF assigns management responsibilities to the District.

There are no other leases on the Property at the time of this writing. The majority of the Cummer Twelve Mile A B and G parcel was encumbered by a land lease held by Rayonier Forest Resources, which expired on December 31, 2025. The District may enter into leases if determined practicable and in the best interest of land management activities.

Easements include three deeded access easements and one utility easement. The three access easements are located in the southern portion of the Property and provide access from Pine Drive, Big Oak Road, and Gaines Road (Figure 4). The utility easement is located on the northern Property boundary (Figure 5).

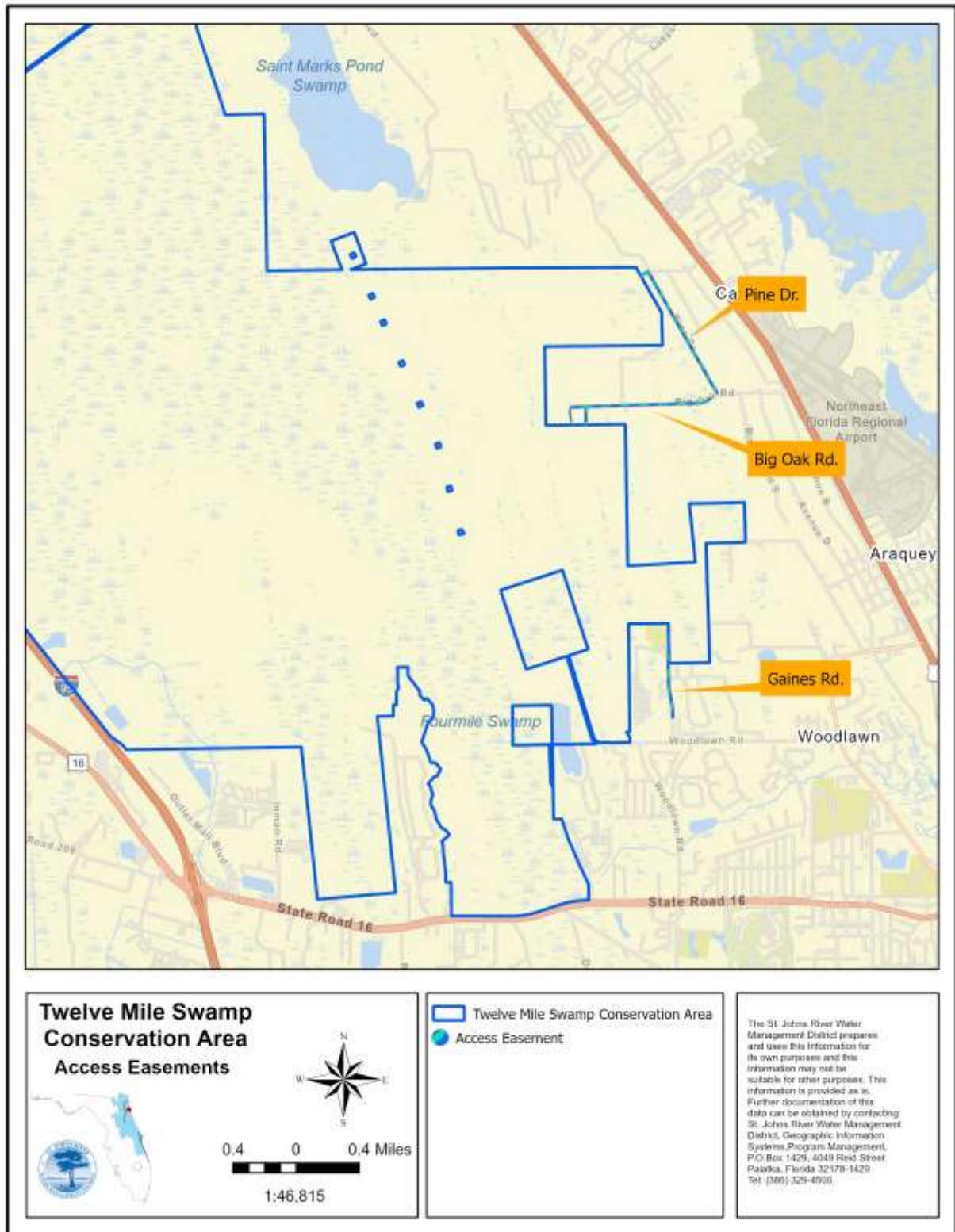


Figure 4. Twelve Mile Swamp Conservation Area Access Easements

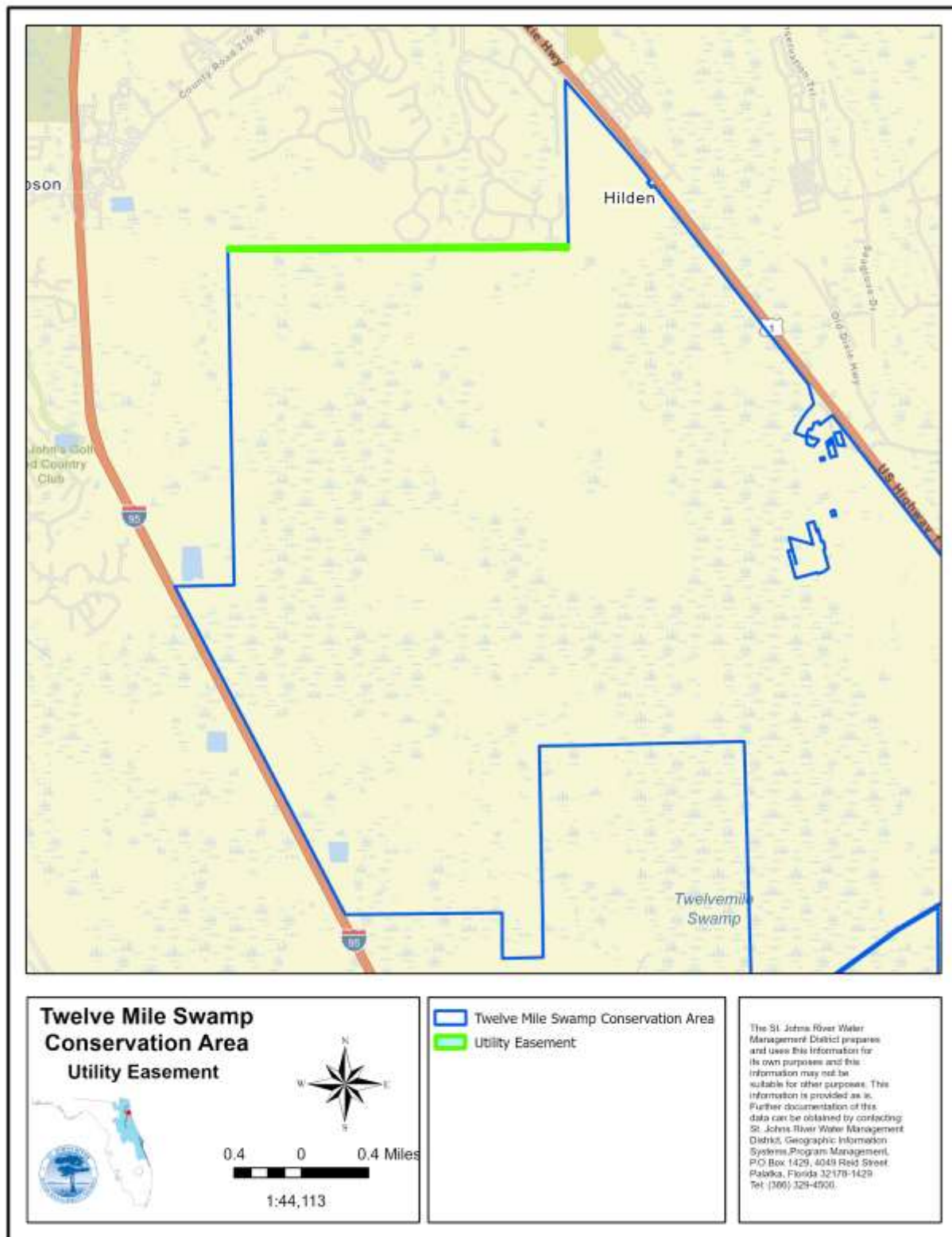


Figure 5. Twelve Mile Swamp Conservation Area Utility Easement

1.4 Proximity to Other Public Lands

The Property is a significant acquisition within a broad network of publicly owned lands and conservation easements in the Lower St. Johns River Basin. Table 1 lists nearby conservations areas and Figure 6 illustrates the regional significance of the Property.

Table 1: Proximate conservation areas

Lead Manager	Conservation Area
City of Jacksonville	Castaway Island Preserve
District	Deep Creek Conservation Area
District	Gourd Island Conservation Area
District	J.P. Hall Bayard Point Conservation Area
District	Julington-Durbin Preserve
District	Moses Creek Conservation Area
District	Murphy Creek Conservation Area
District	Pablo Creek Conservation Area
District	Pellicer Creek Conservation Area
District	Rice Creek Conservation Area
District	Stokes Landing Conservation Area
Flagler County	Princess Place Preserve
Florida Department of Environmental Protection	Anastasia State Park
Florida Department of Environmental Protection	Faver-Dykes State Park
Florida Department of Environmental Protection	Guana Tolomato Matanzas National Estuarine Research Reserve
Florida Fish and Wildlife Conservation Commission	Guana River Wildlife Management Area
Florida Forest Service	Matanzas State Forest
Private Corporation	Meldrim Conservation Easement
St. Johns County	Nocatee Preserve
St. Johns County	Turnbull Conservation Area

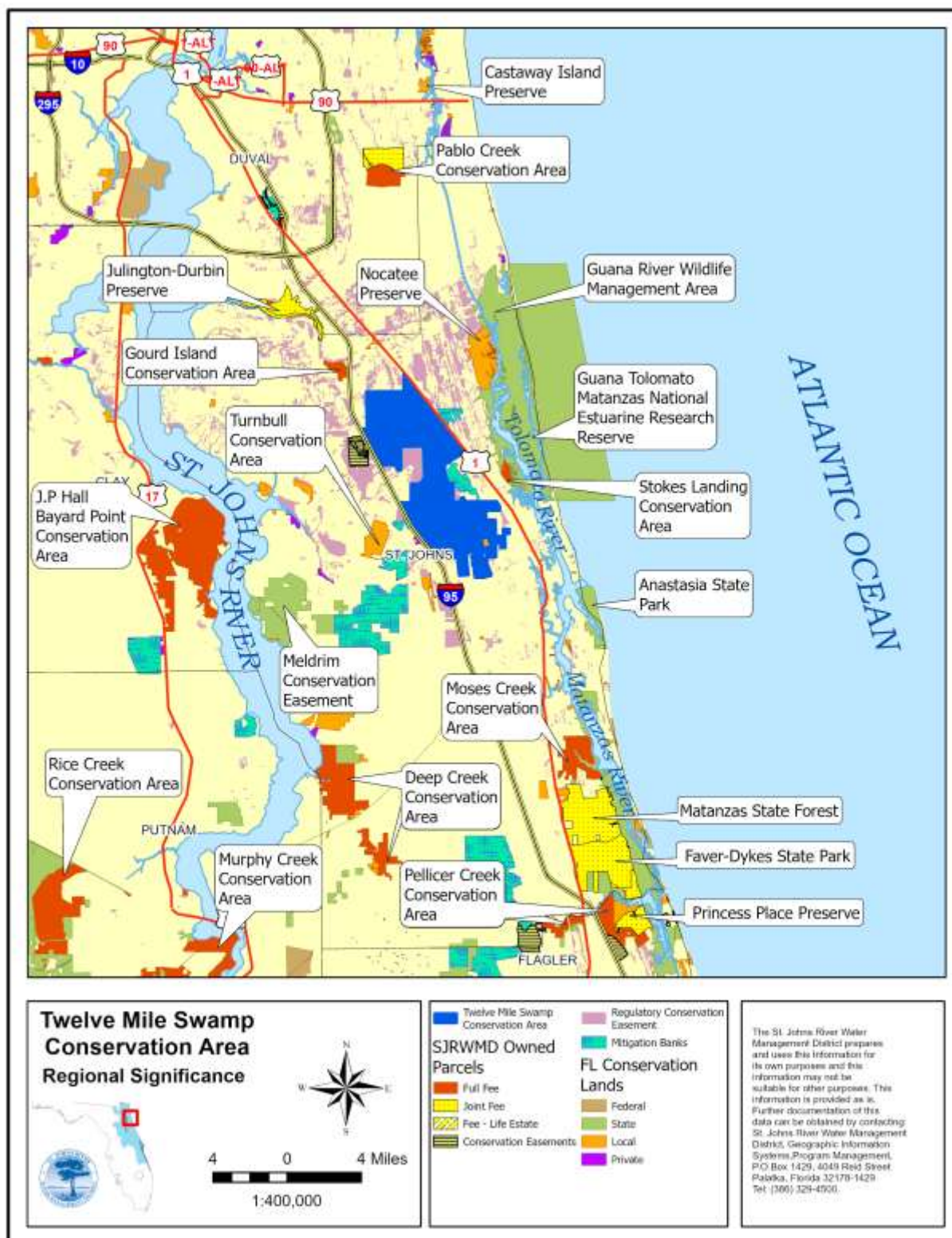


Figure 6. Twelve Mile Swamp Conservation Area Regional Significance (January 2026)

1.5 Adjacent Land Uses

Current land use and zoning classifications for properties located in St. Johns County that surround the Property include Planned Use Development and Administrative. The future land use designations include the aforementioned designations.

There are no land uses that conflict with the planned use of the Property as shown in documentation provided by St. Johns County (Appendix B).

1.6 Public Involvement

This plan was prepared with input from the TMSCA Management Advisory Group (MAG). The TMSCA MAG met on **October 15, 2026, at District Headquarters, 4049 Reid St., Palatka, Fla.** A summary of that meeting is in Appendix C.

A noticed public meeting was held on **November 19, 2026, at the St. Johns County Main Branch Library, 1960 N. Ponce De Leon Blvd., St. Augustine, Fla.** The objective of the public meeting was to receive public input regarding the draft management plan. A summary of that meeting is in Appendix C.

The District's Governing Board will be considering this management plan. This will be an additional forum for the public to provide input to the plan. 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

There are no known mineral resources on the Property. The District retains mineral rights to the Property, except for Government Lots 2 and 7 of Section 27, Township 6 South, Range 29 East; Lots 2 and 3 of Section 30, Township 5 South, Range 29 East lying west of the Florida East Coast Railway Company; and Lots 7 and 10 of Section 20, Lots 12 and 13 of Section 21 and Lots 6, 11 and 12 of Section 28, all in township 6 South, Range 29 East as reserved in deeds to the previous landowner circa 1950. These areas total approximately 415 acres.

b. Topography

The highest elevation on the Property is 56 feet [Figure 7 (NAD 1983)] and the lowest elevation is approximately 16 feet [Figure 8 (NAD 1983)].

c. Soils

The U.S. Department of Agriculture Natural Resources Conservation Service

recognizes 30 different soil series within the Property. Soils maps are contained in Figures 9 (northern portion of the Property) and 10 (southern portion of the Property). Riviera and Immokalee fine sands are the predominate soils on the Property. Appendix E contains soil descriptions from the St. Johns County Soil Survey.

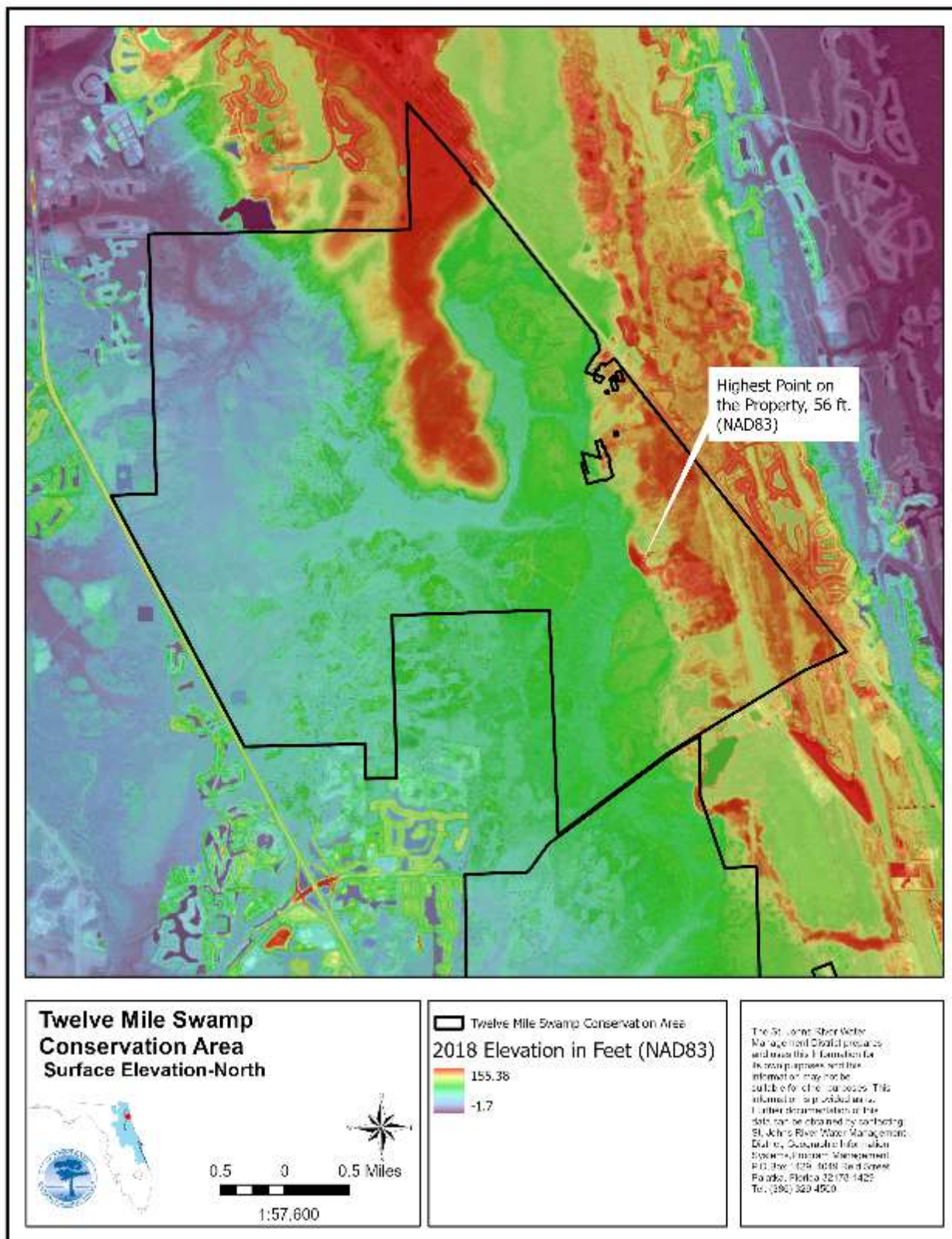


Figure 7. Twelve Mile Swamp Conservation Area Topography North

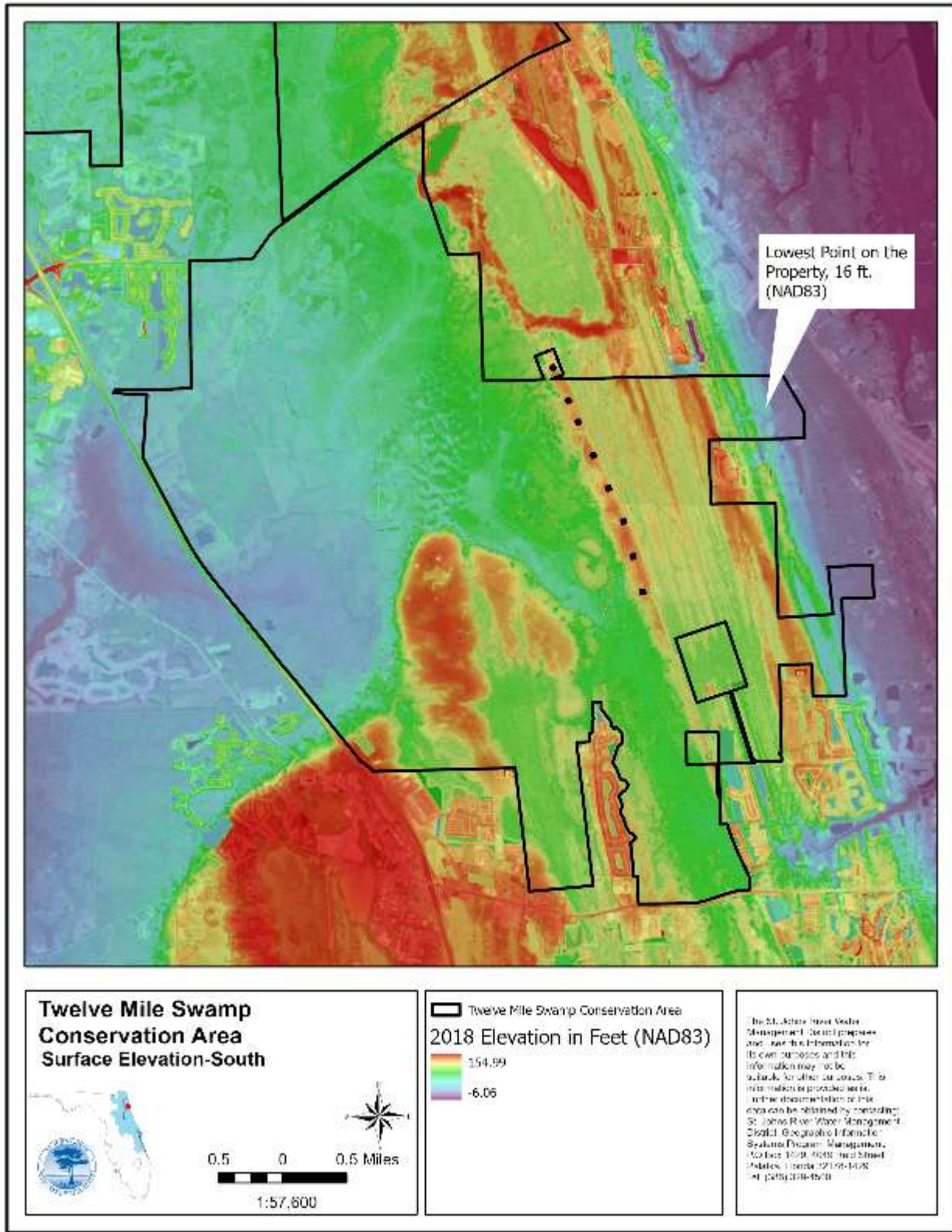


Figure 8. Twelve Mile Swamp Conservation Area Topography South

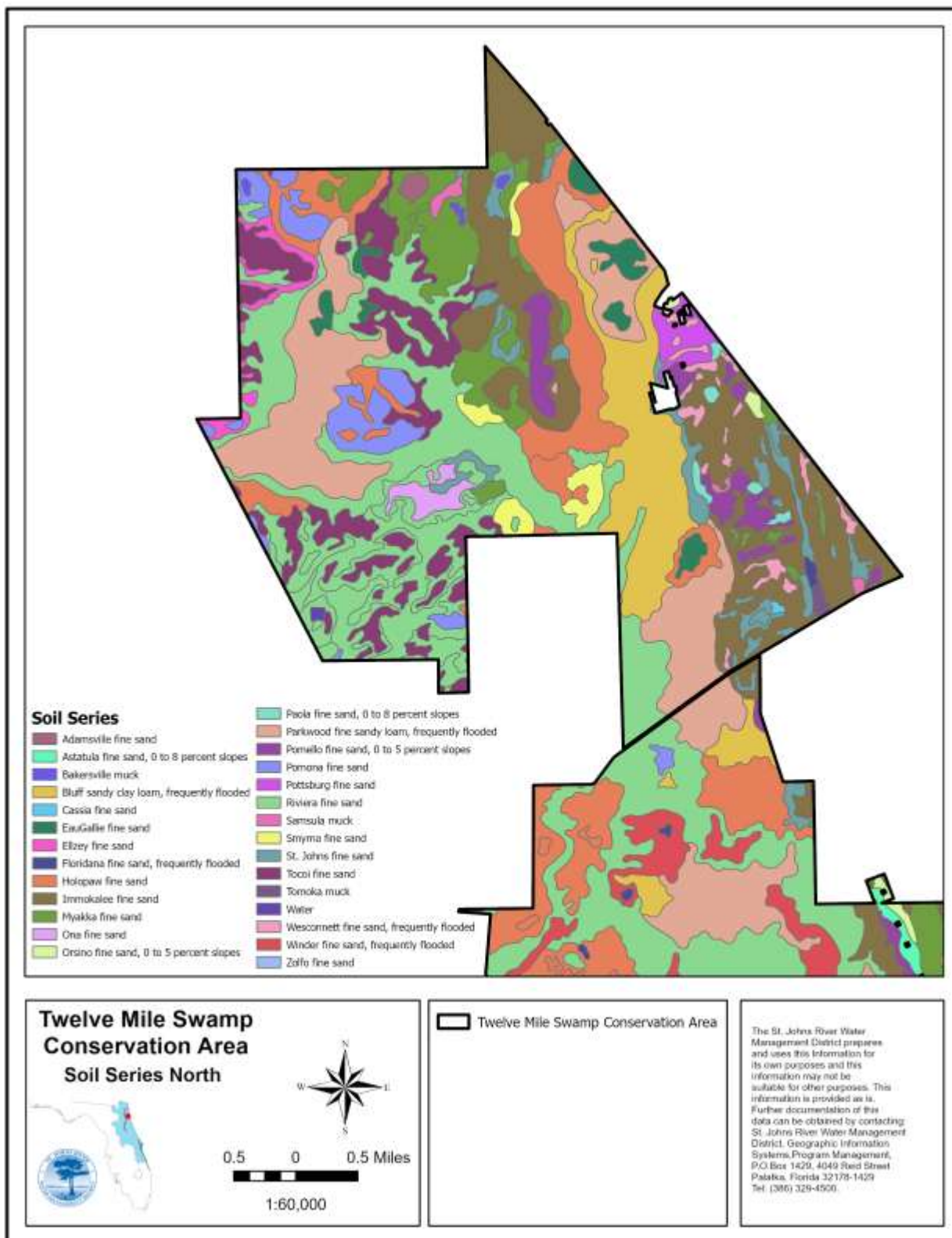


Figure 9. Twelve Mile Swamp Conservation Area Soil Series North

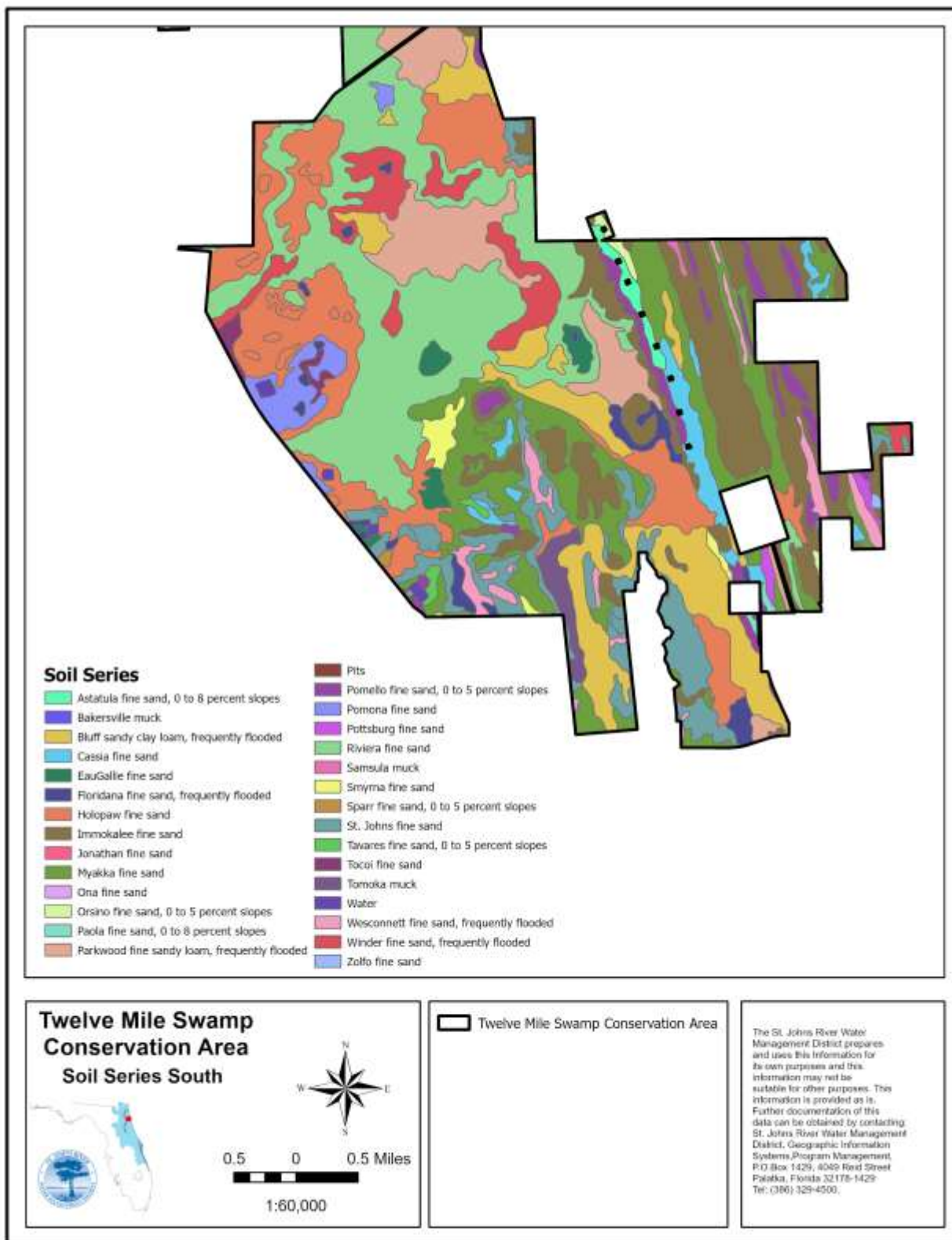


Figure 10. Twelve Mile Swamp Conservation Area Soil Series South

2.2 Natural Communities

The Property's natural communities were mapped by Florida Natural Areas Inventory (FNAI) in spring 2024. Natural community delineations were made based on visual inspection of the historical and current photographs and onsite visits. The typical minimum mapping unit is 0.5 acres. FNAI scientists surveyed ("ground-truthed") a percentage of mapped natural community polygons on foot to assess the community type, and also to note variation in topography, hydrology, vegetation composition and structure, and to determine the types of disturbance present in each polygon.

The following subsections describe the 12 natural communities and the four altered communities found on the Property, in alphabetical order. These communities are shown on Figures 11 and 12. All natural and altered community descriptions in this section are based on FNAI *Guide to the Natural Communities of Florida* (2010).

Basin Swamp (3,085 acres; 15%)

Basin swamps are forested depressions that are typically large and/or embedded in a non-pyrogenic community and thus are not heavily influenced by frequent fires in the surrounding landscape. The soils are generally acidic, nutrient-poor peats overlying an impervious soil layer. This community type is dominated by cypress and/or tupelo but may contain additional hydrophytic trees and shrubs that can withstand inundation for most or all of the year.

Basin swamp occupies low areas in the large hydric hammock/bottomland forest complex of Twelve Mile Swamp, an enormous collection basin that provides output to multiple streams. These swamps frequently grade into bottomland forest and hydric hammocks, and the distinction between these communities may be difficult to discern on aerial photographs. On the east side of the Property, basin swamps may occupy narrow swales between linear ridges formed as part of an ancient barrier island system.

Basin swamps have a canopy of swamp tupelo (*Nyssa biflora*), pond cypress (*Taxodium ascendens*) or bald cypress (*Taxodium distichum*), with occasional red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), swamp laurel oak (*Quercus laurifolia*), and slash pine (*Pinus elliotii*). Subcanopy trees include red maple, Carolina ash (*Fraxinus caroliniana*), sweetgum, sweetbay (*Magnolia virginiana* var. *australis*), Carolina basswood (*Tilia americana* var. *caroliniana*), dahoon (*Ilex cassine*), American hornbeam (*Carpinus caroliniana* var. *caroliniana*), cabbage palm (*Sabal palmetto*), and American elm (*Ulmus americana*). Subcanopy species are often present in the open shrub layer, along with common buttonbush (*Cephalanthus occidentalis*), swamp doghobble (*Eubotrys racemosus*), Southern bayberry (*Morella cerifera*), swamp bay (*Tamala palustris*), fetterbush (*Lyonia lucida*), maleberry (*Lyonia ligustrina* var. *foliosiflora*), American snowbell (*Styrax americanus*), and bluestem palmetto (*Sabal minor*). Herbs are sparse and mainly consist of Virginia chain fern (*Anchistea virginica*), sawgrass (*Cladium jamaicense*), millet beaksedge (*Rhynchospora miliacea*), and lizard's tail (*Saururus cernuus*). Additional species include lemon bacopa (*Bacopa caroliniana*), sedge (*Carex* sp.), spadeleaf (*Centella erecta*), woodoats (*Chasmanthium* sp.), witchgrass (*Dichanthelium* sp.), maidencane (*Hymenachne hemitoma*), clustered bushmint (*Hyptis alata*), rush (*Juncus* sp.), hornpod (*Mitreola* sp.), royal fern (*Osmunda spectabilis*), and cinnamon fern (*Osmundastrum cinnamomeum*). Epiphytes such as Bartram's air-plant (*Tillandsia bartramii*), ballmoss

(*Tillandsia recurvata*), and Spanish moss (*Tillandsia usneoides*) are common throughout. Occasional vines include laurel greenbrier (*Smilax laurifolia*), climbing hydrangea (*Hydrangea barbara*), and Eastern poison ivy (*Toxicodendron radicans* var. *radicans*). The non-native invasive Chinese tallow tree (*Triadica sebifera*) is present in some areas, particularly along vehicle trails.

Many basin swamps on the Property have been impacted by past cypress and hardwood harvesting. These may now be open, successional shrub or herb communities or may be populated by young, regenerating hydrophytic trees. Swamps that have clearly been logged in recent years are marked as “restoration” on the current natural community map.

Fire intervals in basin swamps are highly variable. The lowest portions of basin swamps rarely, if ever, burn. Where it can be done safely, prescribed fires should be allowed to burn into basin swamp edges to restrict shrub encroachment into ecotones and promote the cypress component. Swamp tupelo and other hardwoods dominate areas that burn less often. If hydrology has been altered (i.e., ditches or canals), normal hydroperiod should be restored if possible, since shortened hydroperiods can also allow devastating fire to enter, potentially altering the community. Heavy equipment that causes rutting will alter the micro-hydrology of the ecotone; use of heavy equipment, if necessary, should be limited to dry seasons. This community is thought to be very stable as long as hydrological conditions and water quality are maintained.

Baygall (167 acres; 0.8%)

Baygall is an evergreen, forested wetland characterized by a bay tree dominated canopy typically found at the base of sandy slopes where water seepage maintains a saturated peat substrate. It may form an ecotone between uplands and swamps, or it may develop as a bay swamp in isolated basins or broad areas of seepage.

Baygalls on the Property occur mostly as small depressions within and adjacent to xeric uplands that provide a source of seepage. Canopy and subcanopy species include loblolly bay, sweetbay, swamp tupelo, sweetgum, dahoon, pond cypress, water oak, and slash pine. The shrub layer includes swamp doghobble, blue huckleberry (*Gaylussacia tomentosa*), gallberry, maleberry, fetterbush, Southern bayberry, saw palmetto, swamp bay, and hairy highbush blueberry. Herbs are sparse and limited to mostly scattered shade-tolerant ferns such as Virginia chain fern, netted chain fern (*Lorinseria areolata*), royal fern, and cinnamon fern. Scattered or dense patches of sphagnum moss are common. Vines may be dense and include yellow jessamine, muscadine (*Muscadinia rotundifolia*), laurel greenbrier, and bristly greenbrier (*Smilax hispida*). Pines are a natural part of the canopy structure of baygall communities, but past silvicultural activities have likely increased their frequency.

Baygalls should burn infrequently, perhaps only a few times each century in the deepest areas. Although the saturated soils and humid conditions within baygalls typically inhibit fire, droughts may create conditions that allow them to burn catastrophically. These fires not only destroy the canopy but also may ignite the deep peat layers that can smolder for weeks, or even months. If it can be done safely, prescribed fires in adjacent uplands should be allowed to burn into baygall edges to maintain grassy ecotones and to kill bay shrubs encroaching into the uplands. Plowed firebreaks and ditches should be restored, and hydrology should be returned to its natural state where possible.

Bottomland Forest (165 acres; 0.8%)

Bottomland forest is a deciduous, or mixed deciduous/evergreen, closed-canopy forest on terraces and levees within riverine floodplains and in shallow depressions. Found in situations intermediate between swamps (which are flooded most of the time) and uplands, the canopy may be quite diverse with both deciduous and evergreen hydrophytic to mesophytic trees.

Bottomland forest on the Property is part of a hydric hammock/bottomland forest/basin swamp complex that forms Twelve Mile Swamp, an enormous collection basin that provides output to multiple streams. These communities often grade into one another, and the distinction may be difficult to discern on aerial photographs. Because of their similarity to hydric hammock, few bottomland forests are mapped on the Property. On the ground, these stands had an apparently larger component of species such as sweetgum and a minor component of cabbage palm (*Sabal palmetto*).

In addition to the abundant sweetgum, the closed canopy is composed of a mix of various wetland-tolerant trees, mainly red maple, ash (*Fraxinus* sp.), loblolly bay, slash pine, loblolly pine (*Pinus taeda*), swamp laurel oak, water oak, and American elm. Pond cypress is occasional. Understory shrubs and small trees include common persimmon (*Diospyros virginiana*), gallberry, Eastern red cedar (*Juniperus virginiana*), fetterbush, Southern bayberry, cabbage palm, saw palmetto, American snowbell, swamp bay, and hairy highbush blueberry. Herbs are sparse, mostly weedy species such as purple bluestem (*Andropogon cretaceus*), sugarcane plumegrass (*Erianthus giganteus*), dogfennel (*Eupatorium capillifolium*), or Carolina redroot (*Lachnanthes caroliniana*).

Many areas in the bottomland and hammock, particularly the drier portions, have been logged in the past. Areas of clearly dense hardwoods on the 1942 aerial photographs have been cleared and often planted with pines. These areas of altered bottomland forest are currently denoted as “restoration” to indicate their disturbed state. A restoration natural community is defined as former altered landcover type or successional natural community (pine plantation, xeric hammock, etc.) where active restoration is ongoing to return the community to its historic state.

Depression Marsh (63 acres; 0.3%)

Depression marsh is a shallow, usually rounded depression in sand substrate with herbaceous vegetation or subshrubs, often in concentric bands. Depression marshes typically occur in landscapes occupied by fire-maintained matrix communities such as mesic flatwoods, dry prairie, or sandhill. The concentric zones or bands of vegetation are related to length of the hydroperiod and depth of flooding. Hydroperiods can range widely from as few as 50 days or less to more than 200 days of inundation per year. Depression marshes often dry out during low rainfall and burn periodically. The substrate is usually acidic sand, possibly with deepening peat toward the center. Water depth in depression marshes usually increases toward the center, so vegetation can form concentric zones of hydrophytic vegetation based on hydroperiod.

There are numerous depression marshes embedded in former pine communities on the Property, although isolated depressions are more likely to be tree-dominated. Most marshes are in poor to fair condition. Dominant herbs are maidencane, with several other species commonly found, including Virginia chain fern, purple bluestem, fireweed (*Erechtites hieraciifolius*), dogfennel, beaksedge (*Rhynchospora* sp.), Carolina redroot, cordgrass (*Spartina* sp.), coastalplain yellow-

eyed grass (*Xyris ambigua*), and Elliott's yellow-eyed grass (*Xyris elliotii*). Scattered small trees of swamp tupelo, red maple, slash pine, and loblolly bay, as well as tall shrubs of common buttonbush, dahoon, and Southern bayberry, are common around depression marsh edges.

Depression marshes require frequent fires to maintain a high herbaceous species component and reduce woody encroachment. The natural fire-return interval for depression marshes is every 1–8 years, primarily during the growing season (April–June) when water levels are low and fuels in surrounding uplands are dry. Prescribed burns should be implemented more often for depression marshes encroached by woody species to reduce their abundance.

Dome Swamp (653 acres; 3%)

Dome swamp is an isolated, forested, depression wetland occurring within a fire-maintained community such as mesic flatwoods. These swamps are usually small with a characteristic dome shape created by smaller trees that grow in the shallow outer edge, while taller trees grow in the deeper, more frequently inundated interior where there is often more organic accumulation. Dome swamps are usually dominated by pond cypress and/or swamp tupelo (*Nyssa biflora*).

Dome swamps are common on the Property, occurring as small, isolated depressions within mesic and wet flatwoods. On the east side of the Property, dome swamps may occupy small, narrow swales between linear ridges formed as part of an ancient barrier island system. The canopy is dominated by pond cypress or swamp tupelo with occasional slash pine. Less frequent canopy and subcanopy species include red maple, loblolly bay, sweetgum, sweetbay, swamp laurel oak, water oak, cabbage palm, dahoon, coastalplain willow (*Salix caroliniana*), and swamp bay.

Shrubs include common buttonbush, myrtleleaf St. John's wort (*Hypericum myrtifolium*), myrtle-leaved holly (*Ilex myrtifolia*), fetterbush, Southern bayberry, and hairy highbush blueberry. Typical herbs include Virginia chain fern, purple bluestem, sedge (*Carex* sp.), maidencane, Carolina redroot, cinnamon fern, rosy camphorweed (*Pluchea baccharis*), beaksedge, and woolgrass (*Scirpus cyperinus*). Laurel greenbrier is a frequent vine, and Bartram's air-plant is a common epiphyte on cypress trees.

Many dome swamps on the Property have been impacted by past cypress and hardwood harvesting. These may now be open, successional shrub or herb communities or may be populated by young, regenerating hydrophytic trees. Swamps that have clearly been logged in recent years are marked as “restoration” on the current natural community map.

Fire is essential to the maintenance of dome swamps; without fire, hardwoods will invade the otherwise open understory. Fires in the surrounding flatwoods should be encouraged to burn through the dome swamps periodically, and, where possible, hydrological restoration may improve natural wetland functions. As flatwoods restoration progresses and fire continues to be introduced in the surrounding landscape, these dome swamps should regain more of their natural function.

Hydric Hammock (7,099; 34%)

Hydric hammock is an evergreen hardwood and/or palm forest with a variable understory, typically dominated by palms and ferns occurring on moist soils, often with limestone very near the surface. The community generally has a closed canopy of oaks and palms with an open

understory and sparse groundcover. The species composition of this community is mainly influenced by flooding patterns with more hydrophytic trees occurring in forests with higher flood frequency. Hydric hammocks occur on low, flat, wet sites with poor draining soils, which can be quite variable from slightly acidic to slightly alkaline.

Twelve Mile Swamp is a complex of hydric hammock, bottomland forest, and basin swamp occupying a large collection basin that provides output to multiple streams. These communities frequently grade into one another, and the distinction may be difficult to discern on aerial photographs. The hydric hammock has a closed canopy of mixed hardwoods with a significant component of swamp laurel oak and live oak (*Quercus virginiana*). Oaks and cabbage palms make up the subcanopy and much of the shrub components. Other common canopy and subcanopy trees include water hickory (*Carya aquatica*), American hornbeam, tuliptree (*Liriodendron tulipifera* var. *tulipifera*), slash pine, loblolly pine, pond cypress, swamp tupelo, red maple, sugarberry (*Celtis laevigata*), ash, dahoon, Eastern red cedar, sweetgum, red mulberry (*Morus rubra*), Southern magnolia (*Magnolia grandiflora*), American elm, and water oak. Shrubs comprise many of the canopy and subcanopy species, as well as American beautyberry (*Callicarpa americana*), swamp bay, and bluestem palmetto. Herbs are mostly woodoats, but Virginia chain fern, witchgrass, partridgeberry (*Mitchella repens*), and lizard's tail are also common. Vines of trumpet creeper (*Campsis radicans*), yellow jessamine, angle pod (*Gonolobus suberosus* var. *suberosus*), muscadine, Virginia creeper (*Parthenocissus quinquefolia*), Eastern poison ivy, and cat greenbriar (*Smilax glauca*) are occasional to common. The oaks and palms harbor frequent epiphytes, mainly resurrection fern (*Pleopeltis michauxiana*) and Bartram's air-plant.

Slightly elevated parts of the hammock provide habitat for less hydrophytic species. These mesic hammock inclusions contain more live oak and Southern magnolia, along with additional species such as winged elm (*Ulmus alata*). There is a history of logging throughout the Property, including hardwood and cypress removal, and planted pine stands. Clearcut areas of pines have a mixture of regenerating hammock species and early successional weeds. Common species include sugarcane plumegrass, dogfennel, clustered bushmint, Eastern red cedar, Southern bayberry, camphorweed (*Pluchea camphorata*), cabbage palm, danglepod (*Sesbania herbacea*), and saw greenbriar (*Smilax bona-nox*).

Fire is not an important component of this community; however, occasional fires can break through during dry years. The dominant species, when mature, are fire tolerant.

Mesic Flatwoods, including Restoration Mesic Flatwoods (5,194 acres; 24%)

Mesic flatwoods are open canopy upland communities of uneven-aged pines with a low, diverse understory of herbs and shrubs maintained by frequent fires. On the Property, mesic flatwoods were common throughout, occurring as large areas of uplands, often grading into wet flatwoods. Mesic flatwoods also occurred as small rises within wet flatwoods and along linear ridges formed by an ancient barrier island system on the east side of the Property. Almost the entire Property has a history of silviculture, and the existing pine canopy is mostly planted, regenerating from planted, or remnants from prior logging of the site. The history of silviculture and fire exclusion in pine flatwoods on the Property has greatly altered the groundcover. Bedding and soil compaction make the determination of historic wet versus mesic flatwoods difficult. Repeated logging of the bottomland forest/hydric hammock, along with planting pine

stands and hydrology alteration, has also blurred the line between hardwood forests and historic flatwoods.

Currently, the historic flatwoods areas are highly impacted by past silviculture. Stands range from densely planted pine stands, to cleared stands in active restoration, to more or less natural flatwoods, albeit also with planted pines, and often excluded from fire. Since the goal of management is to return these stands to a more natural state, historic mesic flatwoods impacted by silviculture, even stands in a very poor state, are classified as restoration, a designation for former altered landcover types or successional natural communities (pine plantation, xeric hammock, etc.) where active restoration is ongoing to return the community to its historic state.

One area of more or less natural mesic flatwoods remains on the northeastern part of the Property. This flatwoods is part of a complex of scrubby, mesic, and wet pine flatwoods, and while overgrown, is in fair condition. The area has some scattered slash pines. Shrub cover is dense with dwarf huckleberry (*Gaylussacia dumosa*), gallberry, rusty staggerbush (*Lyonia ferruginea*), coastalplain staggerbush (*Lyonia fruticosa*), sensitive briar (*Mimosa microphylla*), Southern bayberry, sand live oak (*Quercus geminata*), dwarf live oak (*Quercus minima*), saw palmetto, and swamp bay. Herbs, where present, include roundleaf thoroughwort (*Eupatorium rotundifolium*), Elliott's milkpea (*Galactia elliotii*), and tailed bracken (*Pteridium pseudocaudatum*). Seepage from the xeric communities in the area creates good habitat for the expansion of baygall species such as loblolly bay and fetterbush into pine flatwoods.

For the most part, former areas of mesic flatwoods are currently young or clearcut pine plantations in poor condition with a highly altered groundcover. These restoration flatwoods are bedded and have a planted or regenerating canopy of slash pine. Often, mesic flatwoods indicator species are limited to just the upper edge of roadside ditches. These are usually shrubs, including saw palmetto, gallberry, coastalplain staggerbush, winged sumac, shiny blueberry (*Vaccinium myrsinites*), dwarf pawpaw (*Asimina pygmaea*), roundpod St. John's wort (*Hypericum cistifolium*), fourpetal St. John's wort (*Hypericum tetrapetalum*), wild pennyroyal (*Piloblephis rigida*), tailed bracken, blackroot (*Pterocaulon pycnostachyum*), vanillaleaf (*Trilisa odoratissima*), Mohr's thoroughwort (*Eupatorium mohrii*), rough hedgehyssop (*Sophronanthe hispida*), and narrowleaf silkgrass (*Pityopsis graminifolia*). Various young hardwoods and weedy shrubs may be common, particularly fetterbush, loblolly bay, Southern bayberry, sand blackberry (*Rubus cuneifolius*), sweetgum, and red maple. Often the remaining vegetation is a monoculture of purple bluestem or Carolina redroot, or a mix of weedy species, many of which are more common to wetlands. These include blue maidencane (*Amphicarpum muehlenbergianum*), Virginia chain fern, broomsedge bluestem (*Andropogon virginicus*), spadeleaf, flatsedge (*Cyperus* sp.), witchgrass, Virginia buttonweed (*Diodia virginiana*), sugarcane plumegrass, dogfennel, slender flattop goldenrod (*Euthamia caroliniana*), Elliott's milkpea, maidencane, Piedmont marshelder (*Iva microcephala*), grassleaf rush (*Juncus marginatus*), needlepod rush (*Juncus scirpoides*), thin paspalum (*Paspalum setaceum*), pitted stripe seed (*Piriqueta caroliniana*), stinking camphorweed (*Pluchea foetida*), combleaf mermaidweed (*Proserpinaca pectinata*), pale meadowbeauty (*Rhexia mariana*), beaksedge, whip nutrush (*Scleria triglomerata*), goldenrod (*Solidago* sp.), and Elliott's yellow-eyed grass. Dense patches of vines, mostly yellow jessamine, muscadine, and earleaf greenbriar (*Smilax auriculata*), may cover the ground or scramble over patches of shrubs. The non-native invasive Chinese tallow tree may be common in silviculture areas.

Management activities in natural and restoration mesic flatwoods should include growing season fires and continued pine thinning in dense stands, as well as continued reintroduction of longleaf pine. For the areas most impacted by timber operations, the groundcover will likely remain weedy and more similar to disturbed wet flatwoods for many years.

Scrub including Restoration Scrub (3 acres; >1%)

Scrub communities are composed of evergreen shrubs, with or without a canopy of pines, and are found on dry, infertile, sandy ridges. The signature scrub species—three species of shrubby oaks, Florida rosemary (*Ceratiola ericoides*), and sand pine (*Pinus clausa*)—are common to scrubs throughout the state. The dominance of these species, however, is variable from site to site. While scrub is a fire-maintained community, it is not easily ignited. Scrub burns less frequently than communities with a more easily ignited grassy groundcover, such as sandhill and mesic flatwoods.

Most xeric uplands on the Property appear to have been historic scrubby flatwoods, but a few small areas of scrub may have been present. The remaining areas observed have a canopy of sand pine. Most vegetation is a shrubby mix of sand live oak, rusty staggerbush, coastalplain staggerbush, fetterbush, pricklypear (*Opuntia mesacantha*), and saw palmetto. Herbs are limited to typical species such as capillary hairsedge (*Bulbostylis ciliatifolia*), sandyfield beaksedge (*Rhynchospora megalocarpa*), and lupine (*Lupinus* sp.), as well as weedy components – bluestem (*Andropogon* sp.), Elliott's milkpea, and fireweed.

Scrubby Flatwoods including Restoration Scrubby Flatwoods (974 acres; 5%)

Scrubby flatwoods have elements characteristic of both mesic flatwoods and scrub communities. This community has an open canopy of widely spaced pine trees with a low, shrubby understory dominated by scrub oaks and saw palmetto (*Serenoa repens*) often interspersed with areas of barren white sand. In addition to the dominant shrubs, grasses and dwarf shrubs make up a substantial portion of the ground cover in this community. Scrubby flatwoods occur on slight rises within mesic flatwoods and in transitional areas between scrub and mesic flatwoods, on moderately well drained sands.

On the Property, scrubby flatwoods are common mostly on the south and east sides. They also occupy linear ridges formed by an ancient barrier island system on the southeastern part of the Property. Currently, most of the historic flatwoods areas are highly impacted by past silviculture. Stands range from densely planted pine stands, to cleared stands in active restoration, to more or less natural flatwoods. Since the goal of management is to return these stands to a more natural state, historic scrubby flatwoods impacted by silviculture, even stands in a very poor state, are classified as restoration, a designation for former altered landcover types or successional natural communities (pine plantation, xeric hammock, etc.) where active restoration is ongoing to return the community to its historic state.

One area with patches of more or less natural scrubby flatwoods remains on the northeastern part of the Property. These flatwoods are part of a complex of scrubby, mesic, and wet pine flatwoods, and are in fair to good condition. The xeric patches generally grade to scrub. Continued restoration may clarify these community delineations. The natural areas of scrubby flatwoods are open with scattered slash pines, sand pines, and sand live oaks. The understory is composed of mainly tall and short shrubs of tarflower (*Bejaria racemosa*), Florida rosemary,

rusty staggerbush, sand live oak, Chapman's oak (*Quercus chapmanii*), myrtle oak (*Quercus myrtifolia*), saw palmetto, winged sumac (*Rhus copallinum* var. *copallinum*), shiny blueberry, and deerberry (*Vaccinium stamineum*). Herbs are sparse, but fairly diverse, including bottlebrush threeawn (*Aristida spiciformis* var. *spiciformis*), coastalplain honeycomb-head (*Balduina angustifolia*), Carolina frostweed (*Crocanthemum carolinianum*), Michaux's croton (*Croton michauxii*), fragrant eryngo (*Eryngium aromaticum*), Elliott's milkpea, blazing star (*Liatris* sp.), sandyfield beaksedge, rough hedgehyssop, and sweet goldenrod (*Solidago odora*).

In contrast to most restoration mesic and wet flatwoods on the Property, scrubby flatwoods impacted by silviculture are generally in fair to good condition due to reduced groundcover disturbance. These are similar vegetatively to the non-restoration areas but typically have a planted slash pine or longleaf pine canopy. Shrub composition is similar, and often closer to mesic flatwoods, with the addition of bigflower pawpaw (*Asimina obovata*), American beautyberry, dwarf huckleberry, Atlantic St. John's wort (*Hypericum tenuifolium*), dwarf bayberry (*Morella pumila*), dwarf live oak, dwarf pawpaw, coastalplain staggerbush, fetterbush, and gallberry. Herbs are quite diverse and include some Southern wiregrass (*Aristida beyrichiana*). In addition to species found in the non-restoration areas, herbs include coastalplain chaffhead (*Carphephorus corymbosus*), tread softly (*Cnidoscolus stimulosus*), pinebarren frostweed (*Crocanthemum corymbosum*), witchgrass, Canadian horseweed (*Erigeron canadensis*), yankeeweed (*Eupatorium compositifolium*), slender flattop goldenrod, whitehead bogbutton (*Lachnocaulon anceps*), sandhill pinweed (*Lechea torreyi*), shortleaf gayfeather (*Liatris tenuifolia*), sensitive briar, nailwort (*Paronychia* sp.), crowngrass (*Paspalum* sp.), wild pennyroyal, silkgrass (*Pityopsis* sp.), candyroot (*Polygala nana*), rustweed (*Polypremum procumbens*), October flower (*Polygonella polygama*), tailed bracken, blackroot, whitetop aster (*Sericocarpus tortifolius*), and pineland scalypink (*Stipulicida setacea*).

The more continuous groundcover of scrubby flatwoods burns more readily than scrub, but less than mesic flatwoods. Ground fires in surrounding mesic flatwoods often enter scrubby flatwoods and extinguish forming a patchwork of burned portions. A natural fire-return interval between 5 and 10 years (and occasionally up to 15 years) allows scrub oaks to maintain dominance in the community. These oaks produce acorns 3 years post-fire, with peak production at 5 years.

Wet Flatwoods including Restoration Wet Flatwoods (3,042 acres; 15%)

Wet flatwoods are open pine-dominated communities with a short understory of hydrophytic herbs and shrubs, or they may have a thick shrubby understory and very sparse groundcover, depending on landscape and soils. On the Property, wet flatwoods were historically common, occurring as large areas adjacent to hydric hammock or swamp, or occasionally embedded in these forested wetlands. Almost the entire Property has a history of silviculture, and the existing pine canopy is mostly planted, regenerating from planted, or remnants from prior logging of the site. The history of silviculture and fire exclusion in pine flatwoods on the Property has greatly altered the groundcover. Bedding and soil compaction make the determination of historic wet versus mesic flatwoods difficult. Repeated logging of the flatwoods complex, followed by site preparation, planting of off-site pines, and hydrology alteration, has also blurred the line between community types.

Currently, the historic flatwoods areas are highly impacted by past silviculture. Stands range from densely planted pine stands to former pine plantations in active restoration to more or less

natural flatwoods, albeit also with planted pines and mostly excluded from fire. Since the goal of management is to return these stands to a more natural state, historic wet flatwoods impacted by silviculture, even stands in a very poor state, are classified as restoration, a designation for former altered landcover types or successional natural communities (pine plantation, xeric hammock, etc.) where active restoration is ongoing to return the community to its historic state.

Although there may be some small natural stands remaining, virtually all historic wet flatwoods on the Property are currently mapped as restoration due to the significant impact of silviculture. These are generally in very poor condition. The canopy is typically clearcut or early regenerating slash pine or loblolly pine. The groundcover is most often a cleared, weedy, mostly herbaceous stand of blue maidencane, purple bluestem, broomsedge bluestem, Virginia chain fern, lemon bacopa, woolly witchgrass (*Dichanthelium scabriusculum*), fireweed, sugarcane plumegrass, tenangle pipewort (*Eriocaulon decangulare*), dogfennel, slender flattop goldenrod, Elliott's milkpea, maidencane, clustered bushmint, Piedmont marshelder, rush (*Juncus* sp.), Carolina redroot, cinnamon fern, rosy camphorweed, pale meadowbeauty, fascicled beaksedge (*Rhynchospora fascicularis*), nutrush (*Scleria* sp.), licoriceweed (*Scoparia dulcis*), coastalplain yellow-eyed grass, and Elliott's yellow-eyed grass. Depending on the history of the stand, shrubs and small trees may be dense. Typical species include red maple, red chokeberry (*Aronia arbutifolia*), groundsel tree (*Baccharis halimifolia*), common buttonbush, titi (*Cyrilla racemiflora*), common persimmon, loblolly bay, coastalplain St. John's wort (*Hypericum brachyphyllum*), roundpod St. John's wort, dahoon, gallberry, myrtle-leaved holly, sweetgum, coastalplain staggerbush, fetterbush, sweetbay, Southern bayberry, laurel oak (*Quercus hemisphaerica*), water oak, winged sumac, cabbage palm, and pond cypress. The non-native invasive Chinese tallow tree may be common in silviculture areas.

Management activities should include growing season fires every 2–4 years, pine thinning in dense stands, and continued reintroduction of longleaf pine. For the areas most impacted by timber operations, the groundcover will likely remain weedy for many years.

Wet Prairie including Restoration Wet Prairie (507 acres; 2%)

Wet prairie is an herbaceous community found on continuously wet but not inundated soils on flatlands or gentle slopes. This community is typically dominated by Southern wiregrass (*Aristida beyrichiana*) along with a variety of graminoids and herbs. High-quality wet prairies are very sparsely populated by woody species. Generally, the soils are acidic, nutrient deficient, and saturated. Wet prairies are distinguished from dry prairie by their abundance of hydrophytic herbs, and scarcity or absence of shrubs, particularly saw palmetto (*Serenoa repens*). Wet prairies differ from wet flatwoods based on canopy cover, and from shallow depression marsh based on presence of Southern wiregrass.

On the Property, several large areas appear open and mostly treeless in the 1942 aerial photographs. These may have been wet prairies, or they may be the result of logging. White patches dotting the land could have been small rises with saw palmetto or could possibly have been from stump removal. Intensive silviculture over the past century has altered components of the original community, and currently these areas are similar to historic pine flatwoods with a planted canopy or clearcut slash pine (*Pinus elliottii*). The understory may contain a mix of various shrubs and herbs, but large monocultures of Carolina redroot (*Lachnanthes caroliniana*) make up most of the existing groundcover.

Natural fires likely entered wet prairies from the surrounding pineland community and burned when they were dry enough to carry fire. A natural fire-return interval for this community is generally 2–3 years, similar to the surrounding pinelands. Wet prairies burned on a longer interval will begin to be invaded by woody species, decreasing the species diversity and fire dependent species indicative of this community.

Xeric Hammock (10 acres; >1%)

Xeric hammock is a mature evergreen forest on well-drained sandy soils. The low canopy is more or less closed and dominated by sand live oak (*Quercus geminata*) with longleaf pine (*Pinus palustris*) occasionally emerging above. The understory is usually open and consists of shrubs characteristic of sandhill or scrub, depending on the origin of the hammock. Xeric hammock generally develops on well-drained sands as “tree islands” within sandhill or scrub communities where fire-exclusion allows for the establishment of an oak canopy. This can occur naturally from fire barriers in the landscape. Consequently, the edges of xeric hammock may fluctuate with changes in the frequency of fire in the surrounding communities, growing larger when fire is excluded for long periods, or shrinking with frequent, intense fires.

One small area of xeric hammock is delineated on the Property. The hardwood stand is present on the 1942 aerial photographs and may have resulted from a fire shadow effect. The hammock is on a ridge top between two large basin swamps. Presently, the closed canopy is sand live oak, and the understory is a shrubby growth of saw palmetto along with a few herbs, including fireweed, dogfennel, Elliott's milkpea, and sandyfield beaksedge.

ALTERED COMMUNITIES

Artificial Pond (60 acres; 0.3%)

Artificial ponds include water retention ponds, cattle ponds, and other waterbodies that were constructed by humans. There are seven mapped artificial ponds on the Property, ranging from less than 1 acre to more than 20 acres. These ponds frequently have floating vegetation consisting of American lotus (*Nelumbo lutea*), broadleaf pondlily (*Nuphar advena*), and white waterlily (*Nymphaea odorata* ssp. *odorata*). The pond edges may have swamp or marsh species, including red maple, common buttonbush, maidencane, bald cypress, and broadleaf cattail, as well as manyflower marshpennywort (*Hydrocotyle umbellata*) and American cupscale (*Sacciolepis striata*).

Borrow Area (3 acres; >1%)

Borrow areas are dry or wet depressions resulting from past or present mining operations. Phosphate pits and upland borrow pits (sand pits, clay pits, etc.). Two borrow areas of unknown origin are mapped on the Property, both with small, inundated depressions.

Canal/Ditch (not mapped)

Canals and ditches are artificial drainage ways. No canals or ditches are delineated on the current natural community map, but ditches are common along the network of elevated roads, and others are present in the forested wetlands. Vegetation in the ditches is a mix of marsh and swamp species that includes fewflower milkweed (*Asclepias lanceolata*), lemon bacopa, maidencane, primrosewillow (*Ludwigia* sp.), pickerelweed (*Pontederia cordata*), shortbeak beaksedge (*Rhynchospora nitens*), danglepod, American snowbell, and pond cypress.

Clearing/Regeneration (not mapped)

Recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community (old homesites, etc.), clearings of unknown origins. There are no mapped clearings on the Property. However, small logging decks are common throughout the silviculture areas.

Pine Plantation (included in other natural communities)

Areas altered by silvicultural activities. These include lands where either (1) planted pines are having or will have an ongoing detrimental effect on native groundcover, (2) the history of planted pines has damaged ground cover to the point where further restoration beyond thinning and burning is required, and/or (3) the method of planting (e.g., bedding) has severely impacted groundcover. Pine plantations in Florida are often dominated by even-aged loblolly, sand, or slash pine.

Almost the entire Property has a history of silviculture, and the existing pine canopy is mostly planted, regenerating from planted, or remnants from prior logging of the site. Often deep bedding creates a significant disturbance to former flatwoods and hardwood forests. Most of the property could be considered pine plantation. However, since the goal of management is to return planted pine stands to a more natural state, all areas impacted by silviculture are classified as restoration, a designation for former altered landcover types or successional natural communities (pine plantation, xeric hammock, etc.) where active restoration is ongoing to return the community to its historic state.

Road (not mapped)

Roads are areas that are paved or unpaved and intended for vehicular traffic. Vehicle trails on the Property are all unpaved and often somewhat elevated with ditches on either side. These are not specifically delineated on the current natural community map. The non-native invasive torpedo grass is common along road edges.

Successional Hardwood Forest (109 acres; 0.5%)

Closed-canopied forest dominated by fast growing hardwoods such as laurel oak, water oak, and/or sweetgum often with remnant pines. These forests are either invaded natural habitat (i.e., mesic flatwoods, sandhill, upland pine, upland mixed woodland) due to lengthy fire suppression or old fields that have succeeded to forest. The subcanopy and shrub layers of these forests are often dense and dominated by smaller individuals of the canopy species. Successional hardwood forests can contain remnant species of the former natural community. Restoration of these forests includes mechanical tree removal, herbicide treatments, and reintroduction of fire. Where characteristic herbaceous species (e.g., wiregrass) have been lost, reintroduction via seed or plants may be necessary to restore natural species composition and community function.

Several small patches of successional hardwood forest are mapped throughout the Property, mostly in former pine flatwoods. Inclusions of successional hardwoods are also common in restoration areas. The closed canopy includes sweetgum, Southern magnolia, slash pine, loblolly pine, laurel oak, swamp laurel oak, water oak, and live oak. Shrubs include common persimmon, rusty staggerbush, Southern bayberry, winged sumac, cabbage palm, saw palmetto, and hairy

highbush blueberry. In xeric areas, scrubby species such as sand pine, sand live oak, or myrtle oak may be present. Muscadine is a common vine and may form dense thickets.

Utility Corridor (26 acres; 1%)

Electric, gas, telephone rights-of-way. A power line corridor runs across the northern boundary of the Property.

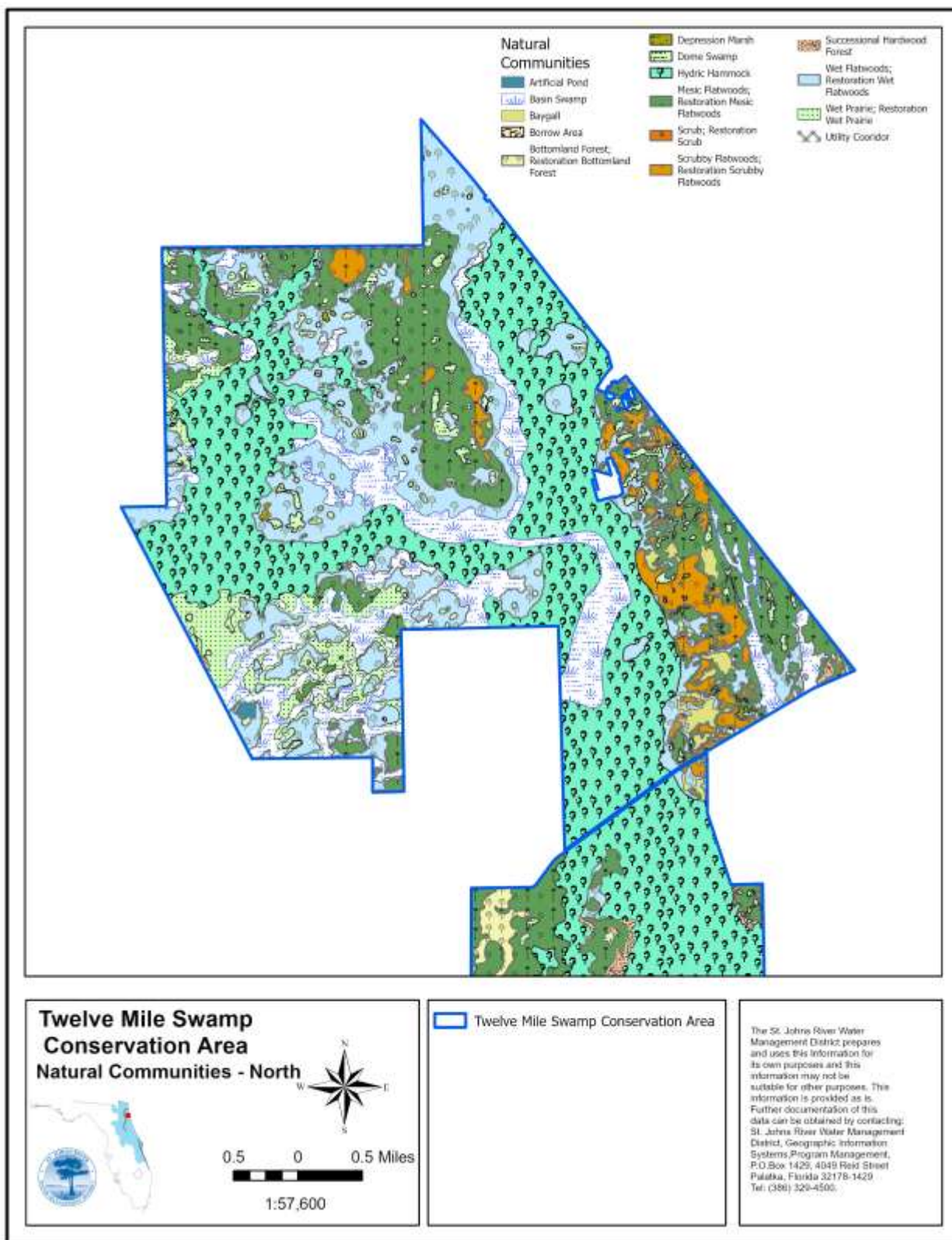


Figure 11. Twelve Mile Swamp Conservation Area Natural Communities North

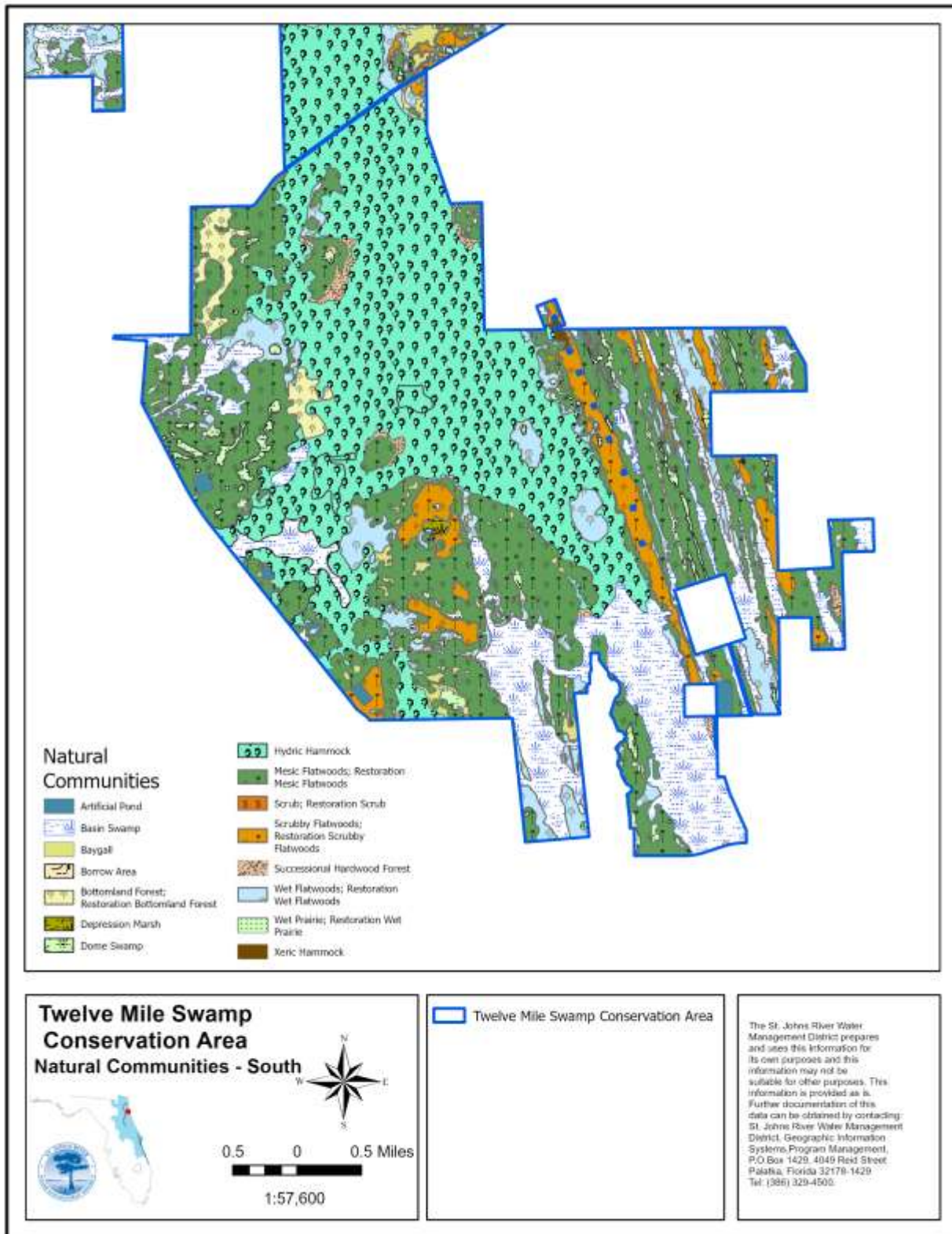


Figure 12. Twelve Mile Swamp Conservation Area Natural Communities South

2.3 Plant and Animal Species

The TMSCA has a diverse assemblage of natural communities providing significant habitat for a variety of floral and faunal species. Much of the Property is within two Wood Stork (*Mycteria americana*) foraging buffers. Numerous species of wading birds occur in the wetland portions of the Property.

Plant, insect, and animal lists are contained in Appendix F. Lists were compiled using observations gathered on site visits by District staff, volunteers, and FNAI staff. The Property will be managed to improve natural community diversity and quality, resulting in diverse wildlife habitat.

2.4 Listed Species

To date, 19 listed species have been recorded on the Property, including Wood Stork and gopher tortoise (*Gopherus polyphemus*). There are four commercially exploited plant species that occur on the Property as well, needle palm (*Rhapidophyllum hystrix*), saw palmetto, cinnamon fern, and royal fern. Appendix G contains an inventory of listed species recorded on the Property. Rather than manage for a single species or a small suite of species, it is the goal of the District to manage the natural communities within the Property for optimal health and biodiversity. This includes varying the timing and intensity of prescribed fire from year to year.

2.5 Forest Resources

Section 253.036, F.S., requires the lead agency of state lands to prepare a forest resource analysis, "...which shall contain a component or section...which assesses the feasibility of managing timber resources on the parcel for resource conservation and revenue generation purposes through a stewardship ethic that embraces sustainable forest management practices if the lead management agency determines that the timber resource management is not in conflict with the primary management objectives of the parcel." Any potential forest resource work on the Property will be restorative in nature to promote species diversity and overall natural community health and vigor.

A detailed forest inventory will be completed for the Property within the scope of this plan. This will provide the needed information to determine ecological timber stand improvement projects that will then be included in the District's Timber Harvest Plan.

There are no known reforestation needs on the Property, but should any arise, appropriate species and stocking rates will be determined by the District forester and land manager.

The District will abide by Florida Silviculture Best Management Practices (BMPs) and Florida Forestry Wildlife BMPs for State Imperiled Species when conducting any forest resource management activities.

2.6 Native Landscapes

The native landscapes on the Property include the large hydric hammock that comprises Twelve Mile Swamp itself, as well as basin swamps that weave throughout the Property. Most of the uplands have been impacted by long term silvicultural operations. Additional information can be found in the Natural Communities section (Section 2.2).

2.7 Water Resources

This section describes the surface and ground water within the Property.

a) Surface Water

The Property does not include any Outstanding Florida Waters and is not located within an Aquatic Preserve or an Area of Critical State Concern as defined in Section 380.05, F.S.. Large hardwood hammocks and swamps combine on the Property to form Twelve Mile Swamp. The area surrounding the Property is primarily forest and mixed development. The majority of the Property is located within the Julington Creek surface water planning unit with portions of the Property also located within the Sixmile Creek, Matanzas River, and Tolomato River surface water planning units. The entirety of the Property is within the Lower St. Johns River Strategic Planning Basin [SJRWMD 2025b (Figure 13)].

There are no surface water monitoring sites that directly monitor the water quality within the Property (SJRWMD 2025a).

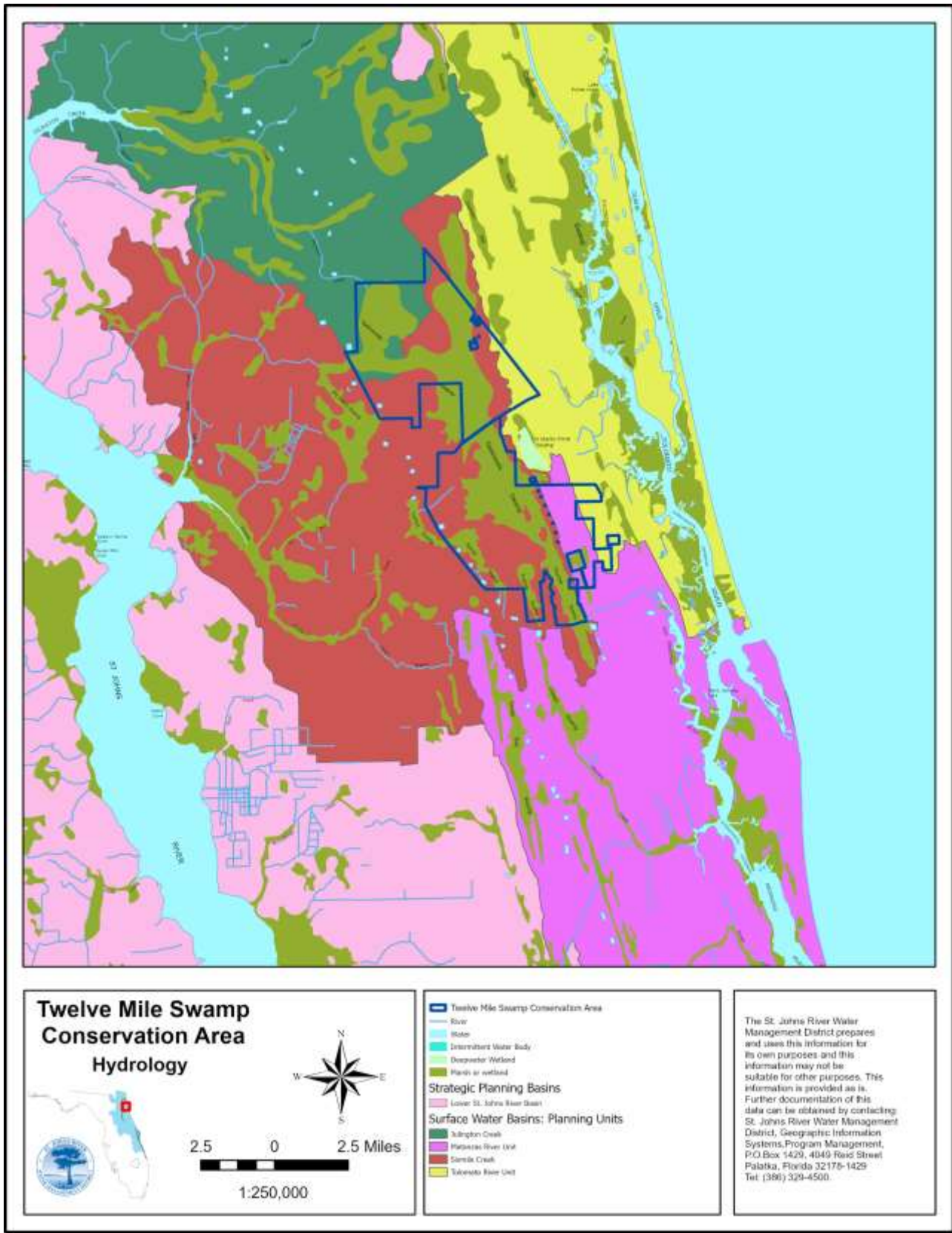


Figure 13. Twelve Mile Swamp Conservation Area Hydrology

b) Geomorphology

The Property lies within the Atlantic Coastal Complex Province and the St. Johns River Valley Province of the Barrier Island Sequence District [Figure 14, (Williams et al, 2022)]. The Barrier Island Sequence District occurs along and inland from the Atlantic Coast of Florida. Pliocene-Pleistocene and Holocene coastal processes formed extensive barrier islands, beaches, lagoons, embayments, and shallow water marine terraces. The estuarine coastlines consist of tidal marshes in the north, gradually changing to mangrove swamps to the south. The reaches of the St. Johns River Valley that are north and south of the St. Johns River Offset Province (Lakes District) were once lagoons or embayments. Wetlands are commonly coast-parallel in the swales between the ridges of the strand plains and tidal marshes or mangrove swamps landward of the barrier islands. Inland, there are broad, relatively flat provinces that are Pliocene-Pleistocene marine terraces.

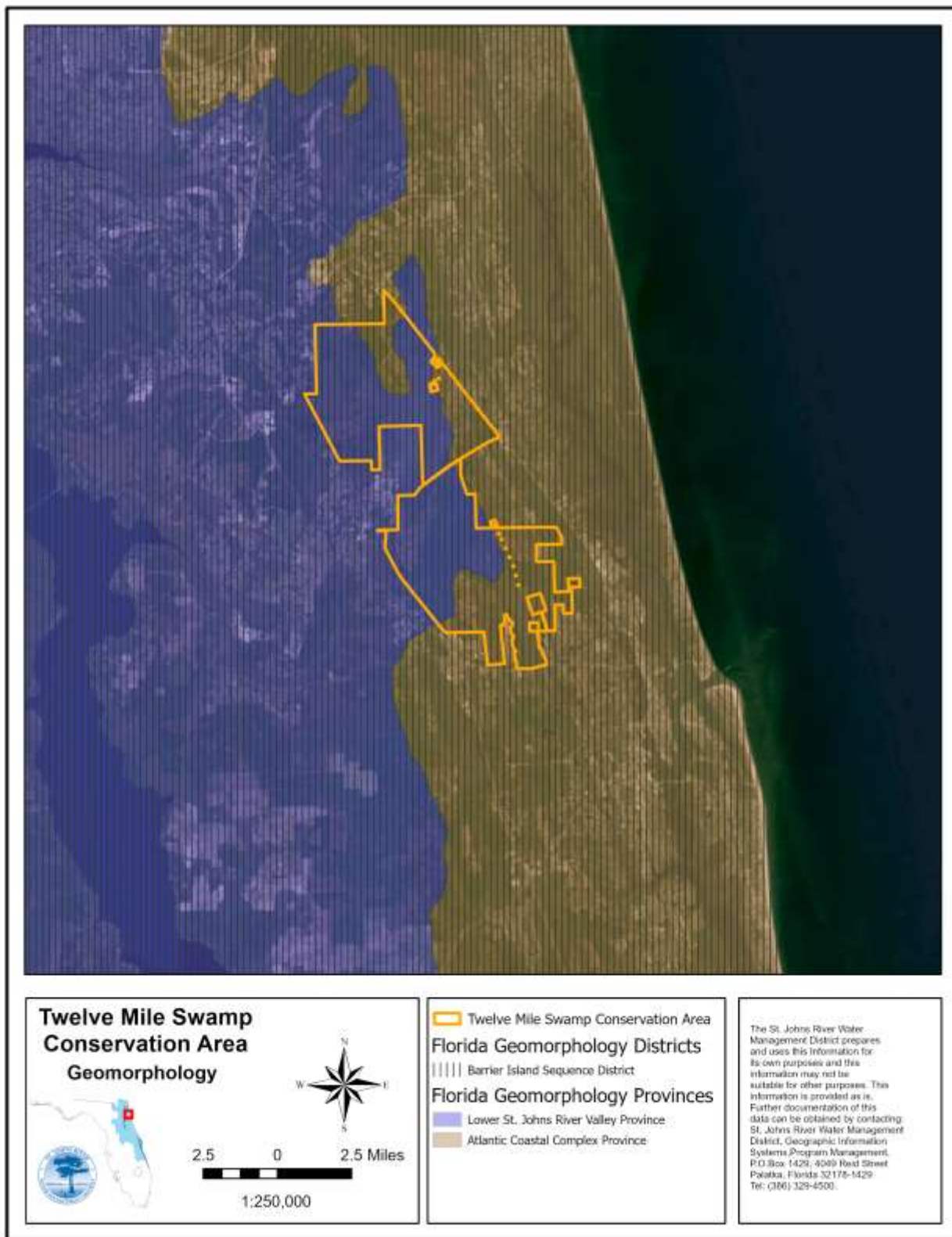


Figure 14. Regional Geomorphology

2.8 Beaches and Dunes

There are no beaches or dunes within the Property.

2.9 Mineral Resources

There are no known mineral resources within the Property. The District retains mineral rights to the Property, except for Government Lots 2 and 7 of Section 27, Township 6 South, Range 29 East; Lots 2 and 3 of Section 30, Township 5 South, Range 29 East lying west of the Florida East Coast Railway Company; and Lots 7 and 10 of Section 20, Lots 12 and 13 of Section 21 and Lots 6, 11 and 12 of Section 28, all in township 6 South, Range 29 East as reserved in deeds to the previous landowner circa 1950. These areas total approximately 415 acres.

2.10 Cultural Resources

There are seven cultural sites and portions of three resource groups on the Property (Table 2). A site assessment was conducted in the spring of 2026 by District and Florida Public Archeology Network (FPAN) staff.

Table 2: Cultural Resources on the TMSCA

Site ID	Site Name	Site Type	Eligibility for listing on the National Register of Historic Places (NRHP)
SJ03134	Twelve Mile Swamp	Historic refuse / dump	Not Evaluated
SJ03135	Rat Snake	Artifact scatter-low density (< 2 per square meter)	Not Evaluated
SJ03136	T M S St. Johns	Prehistoric shell midden	Not Evaluated
SJ03137	T M S Lithic Scatter	Lithic scatter/quarry (prehistoric: no ceramics)	Not Evaluated
SJ03138	T M S Shell Scatter	Prehistoric shell midden	Not Evaluated
SJ05034	Waste Transfer - 1	Land-terrestrial	Ineligible for NRHP
SJ08042	Oldest Jail - Fort Bengali	Building remains	Not Evaluated

2.11 Scenic Resources

The extensive swamp system within the Property is one of the largest and most intact in northeast Florida.

3. Uses of the Property

3.1 Previous Use and Development

The Property has seen use and habitation since prehistoric times. Since the 1950s, the principal land use on the Property has been silviculture. Portions of the timber within the swamps have been harvested by the previous landowners. Several miles of roads and relic trails traverse the Property. Various semi-permanent structures associated with hunting are located on the Property; most will be demolished in the coming years.

3.2 Purpose for Acquisition

The acquisition of the parcels that comprise the TMSCA provides for the protection of important water resources and ecological functions. These acquisitions are consistent with the goals of the Lower St. Johns River Basin projects set forth in the District's Land Acquisition and Management Five-Year Plan, FDOT's mitigation plan, and the District's Water Management Plan, which were in place during the acquisition of the parcels that now comprise the TMSCA. These goals are to preserve the natural floodplain for flood protection, maintain natural hydrologic regimes and water quality, and to restore, maintain, and protect native natural communities and biodiversity. In addition, the District aims to provide opportunities for recreation where compatible with the above listed goals as well as protect archaeological and cultural resources.

The Property is also part of the Conservation and Recreation Lands (CARL) Twelve Mile Swamp project, which predated the state's P2000 and Florida Forever land acquisition programs. The project was completed with the purchase of the Property.

3.3 Single or Multiple-Use Management

The potential of the Property to accommodate multiple uses was analyzed in accordance with subsection 253.034(5), F.S. The Property is managed under the multiple-use concept. Timber harvesting, invasive plant and animal management, prescribed burning, and wildland fuels treatments, all as part of natural community management and restoration activities, can be accomplished in a manner that does not interfere with the primary purpose of conservation. Extraction of mineral resources is incompatible with the conservation purpose of the Property.

Recreation opportunities will be developed during the scope of this plan. These opportunities will include hiking, biking, and horseback riding on trails within the Property. Hunting will be considered in accordance with section 379.3001(5), F.S.; the District will cooperate with

the Florida Fish and Wildlife Conservation Commission (FWC) if that agency determines the Property is suitable for hunting. Any recreational developments will occur so as not to disturb the integrity of the ecosystems on the TMSCA.

All of the current uses and activities within the Property are in accordance with the purposes of acquisition, the District's mission, and the Conceptual State Lands Management Plan.

3.4 Surplus Acreage

There are no surplus lands identified on the Property, nor has any surplus action taken place, on land leased to the District by the TIITF or owned by the District. A state road right-of-way could be constructed within the scope of this plan. This potential state road was planned before the acquisition of the Property. Should surplus lands be identified in the future, all applicable laws and regulations related to the surplus of land that are in effect at that time will be followed.

4. Management Activities and Intent

This section defines how the District will manage the diverse natural and cultural resources at the Property. The general goals guiding management of the Property include:

- Maintain water quality, natural hydrological regimes, and flood protection by preserving important wetland areas
- Restore, maintain, and protect native natural communities and biodiversity
- Maintain and protect cultural resources
- Provide opportunities for recreation where compatible with the above-mentioned goals

4.1 Land Management Review (Management Review Team)

A Management Review Team (MRT) has not been convened since acquisition although one will occur by 2032.

4.2 Habitat Restoration and Improvement

Due to the duration that the Property has been under intensive silviculture, habitat restoration and improvement will be a focus for the management of the Property. For the restoration of upland natural communities, this will be a gradual process as timber stands are harvested allowing for groundcover and hydrologic restoration to be conducted at a large scale. The revenue generated by timber harvests will directly fund these restoration efforts. Specific species and site preparation will depend on the conditions of the stand post-harvest and informed by the historic natural communities maps (Figures 15 and 16).

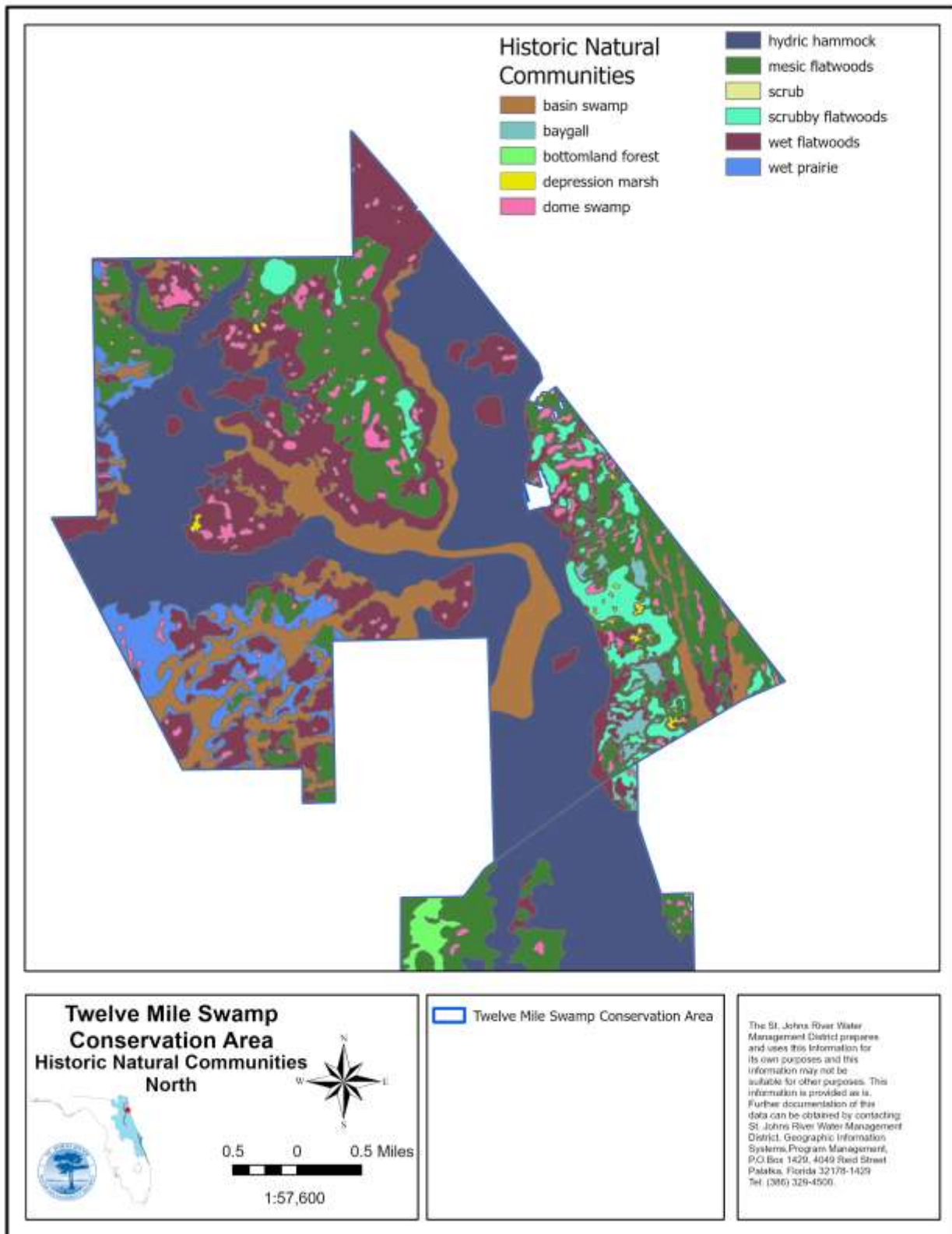


Figure 15. Twelve Mile Swamp Conservation Area Historic Natural Communities North

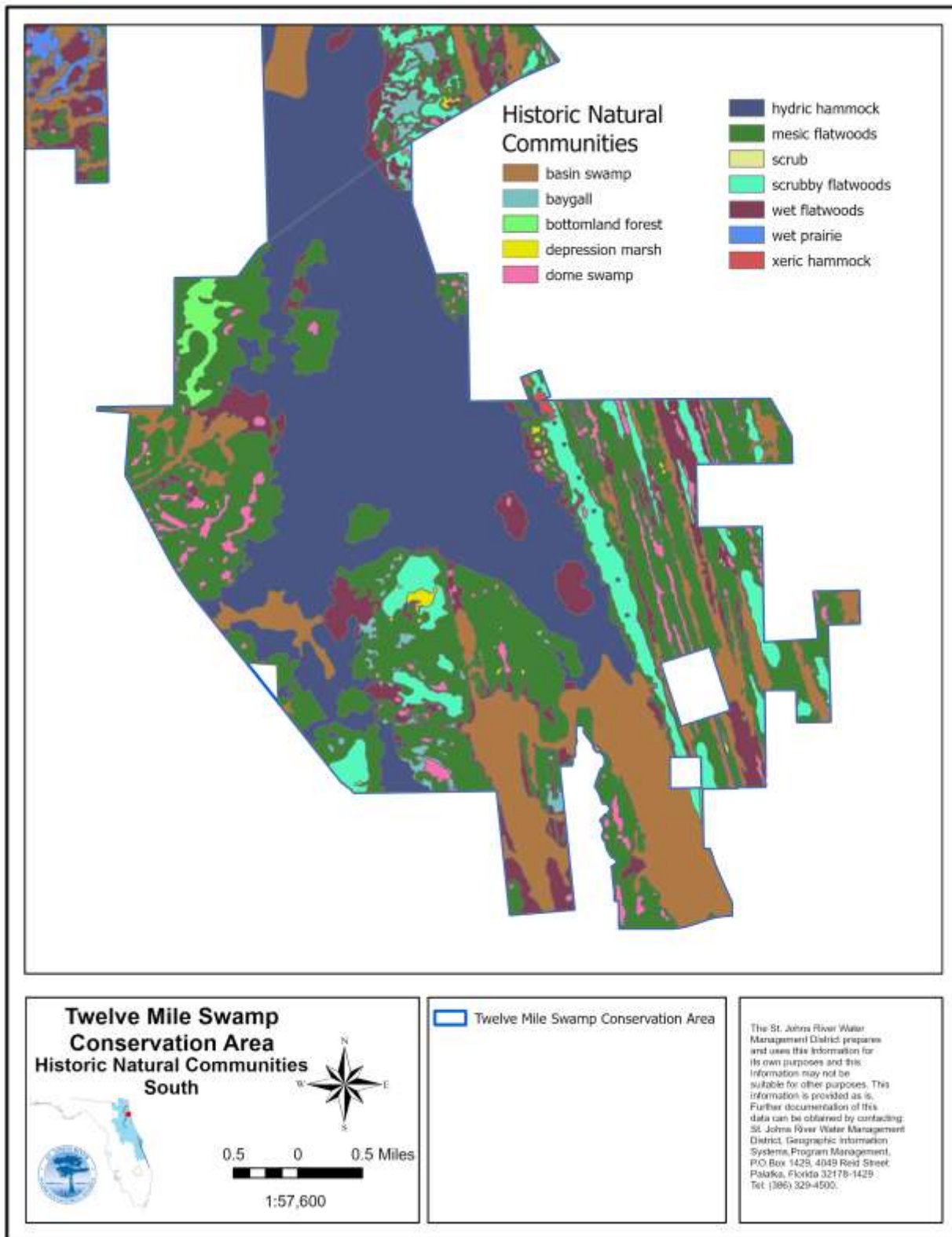


Figure 16. Twelve Mile Swamp Conservation Area Historic Natural Communities South

Restoration within wetlands will focus on the retirement of roads that impede surface flow or direct runoff in artificial directions. Restoration efforts will consist of removing the raised road within the wetland and using the material from the road to return the area to as close to the surrounding grade as possible. Additional details of these proposed efforts are in the hydrological preservation and restoration section of this plan.

4.3 Prescribed Fire and Fire Management

Fire is a vital factor in managing the character and composition of vegetation in many of the natural communities in Florida. The District's primary use of fire is to mimic natural fire regimes to encourage the amelioration of native pyric natural communities and dependent wildlife. Additionally, the application of prescribed fire aids in the reduction of fuels and decreases the potential for catastrophic and damaging wildfires. All the upland natural communities within the Property are (or historically were) fire adapted, making prescribed fire an important tool for use in the restoration and maintenance of natural communities on the TMSCA.

Prescribed fire was rarely used by the previous land manager and no prescribed fires have been documented on the Property in the past 25 years. Five wildfires have occurred on the Property in the past 15 years totaling 322 acres (Figure 17).

Limiting factors narrowing the window of opportunity for the application of prescribed fire on portions of the Property is the proximity to critical smoke-sensitive areas. These areas include U.S. Highway 1, I-95, the Northeast Florida Regional Airport, numerous surrounding developed areas, and the City of St. Augustine. The size of the Property is an asset from a smoke management perspective. Smoke from prescribed fires applied on the Property will be directed using forecasted winds to be dissipated over the Property. As the surrounding area becomes more developed, opportunities to conduct prescribed fires will change, and may cause burn units to become smaller and increase the use of fire surrogates. An additional constraint to prescribed fire is much of the Property has been replanted with slash pine within the past 10 years, limiting the application of prescribed fire due to these stands being susceptible to fire at this point in their growth stage.

Figures 18 and 19 show the 12,888 acres of fire-maintained natural communities within the Property (64% of the TMSCA). These fire-maintained natural communities are broken into Fire Management Units (FMUs) to facilitate management planning and project tracking. FMUs may include multiple natural community types. The FMU delineation on the Property was drawn based on the acreage of the majority of the natural community within an area that is defined by a discrete feature, mostly the road system currently on the Property. The boundaries of the Property's FMUs may be refined within the scope of this plan.

While prescribed fire is the preferred tool for fire-maintained ecosystem management, due to the aforementioned smoke management challenges, disturbance return interval will be used to describe the maintenance activities that mimic, but not replace, the function of fire as a disturbance mechanism. These activities include timber harvest, mechanical fuels reduction, and herbicide applications, which are often termed fire surrogates. Due to the majority of the

FMUs on the Property being flatwoods natural community, a 3-year disturbance return interval will be established for all 12,888 fire-maintained acres. An annual disturbance goal of 2,126 acres will be established, averaged over the 10-year planning period, which is half of the ecological disturbance need of 4,252 acres.

A system of condition class measures was originally developed by The Nature Conservancy (TNC) and the U.S. Forest Service in 2003 as an effort to assess ecosystem health. It was designated as Fire Regime Condition Class (FRCC) and is based on a relative measure describing the degree of departure from the historical natural fire regime of a given system. This departure results in changes to one or more of the following ecological components: species composition, structural stages, stand age, canopy closure, or mosaic pattern. The District adapted the system in 2008 to measure ecosystem health and, therefore, land management effectiveness. Baseline condition classes will be determined within the scope of this plan as part of the FMU delineation and refinement.

The extensive road system and natural features on the Property will be used for fire lines. Additional fire lines may be installed as needed.

Use of aerial ignition systems, including helicopters and uncrewed aerial systems may be used on the Property. These systems allow for rapid prescribed fire application of large areas when weather conditions allow. Four helicopter landing zones have been identified on the Property (Figures 18 and 19). These areas will be approximately 2 acres and will be maintained by mowing. Landing zone coordinates, in decimal degrees, can be found in the Table 3 as well as Exhibit 1 or Appendix H.

Table 3. Helicopter Landing Zone Coordinates

Landing zone 1	81.4483745°W 30.0224694°N
Landing zone 2	81.4543155°W 30.0080836°N
Landing zone 3	81.4391424°W 29.9568976°N
Landing zone 4	81.3762912°W 29.9499309°N

All implementation of prescribed fire within the Property will be conducted in accordance with the District's Fire Management Plan, the Property's Fire Management Plan (Appendix H), and the annual burn plan for the Property.



Figure 17. Twelve Mile Swamp Conservation Area Fire History

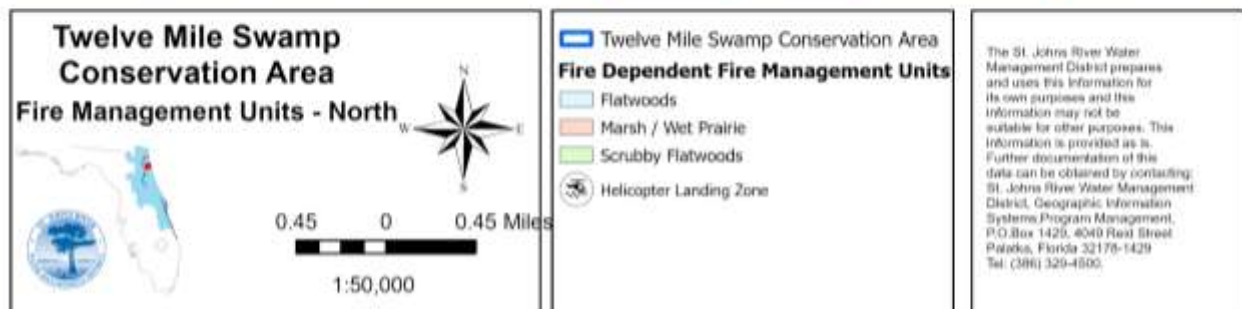
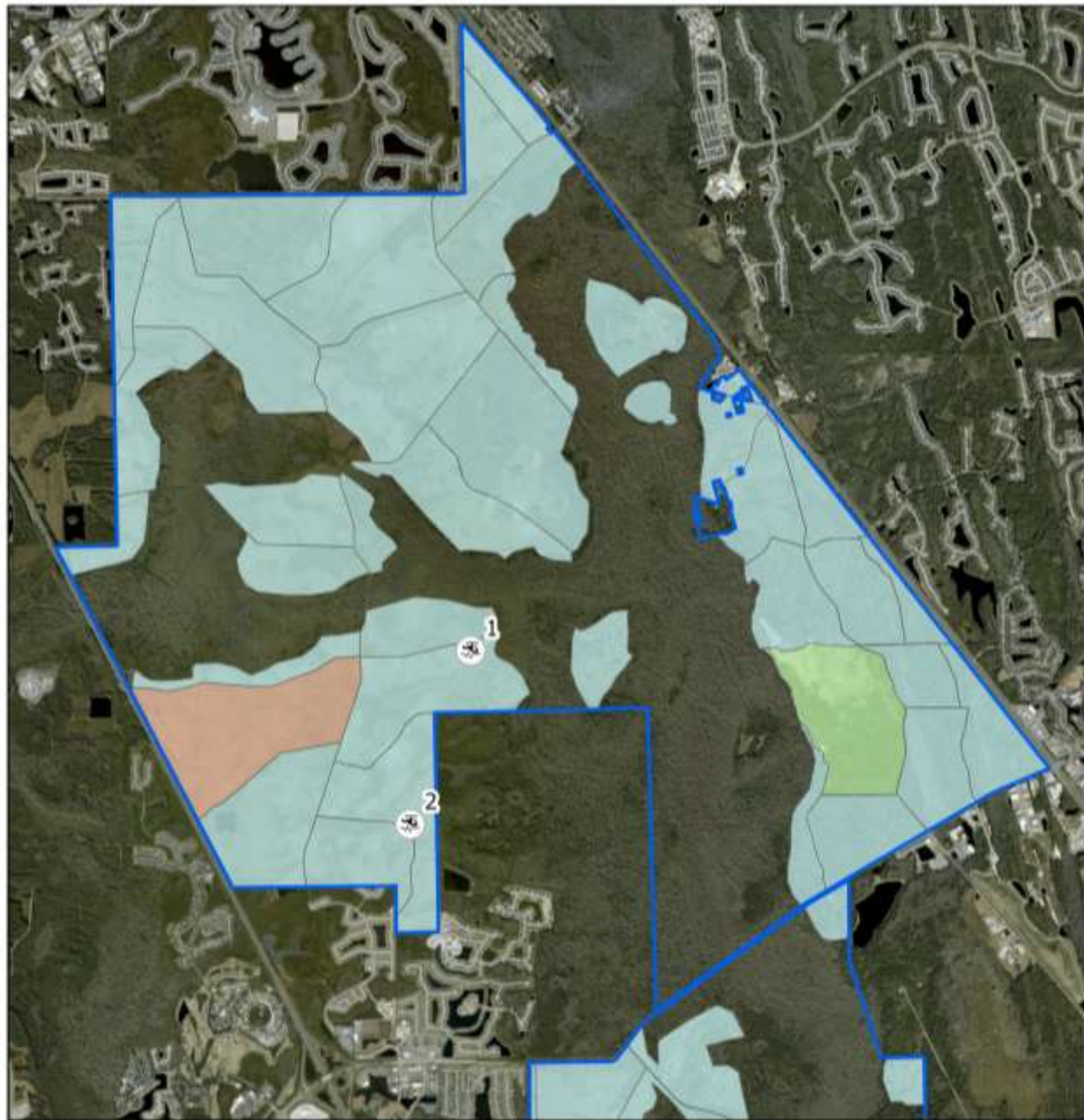


Figure 18. Twelve Mile Swamp Conservation Area North Fire Management Units

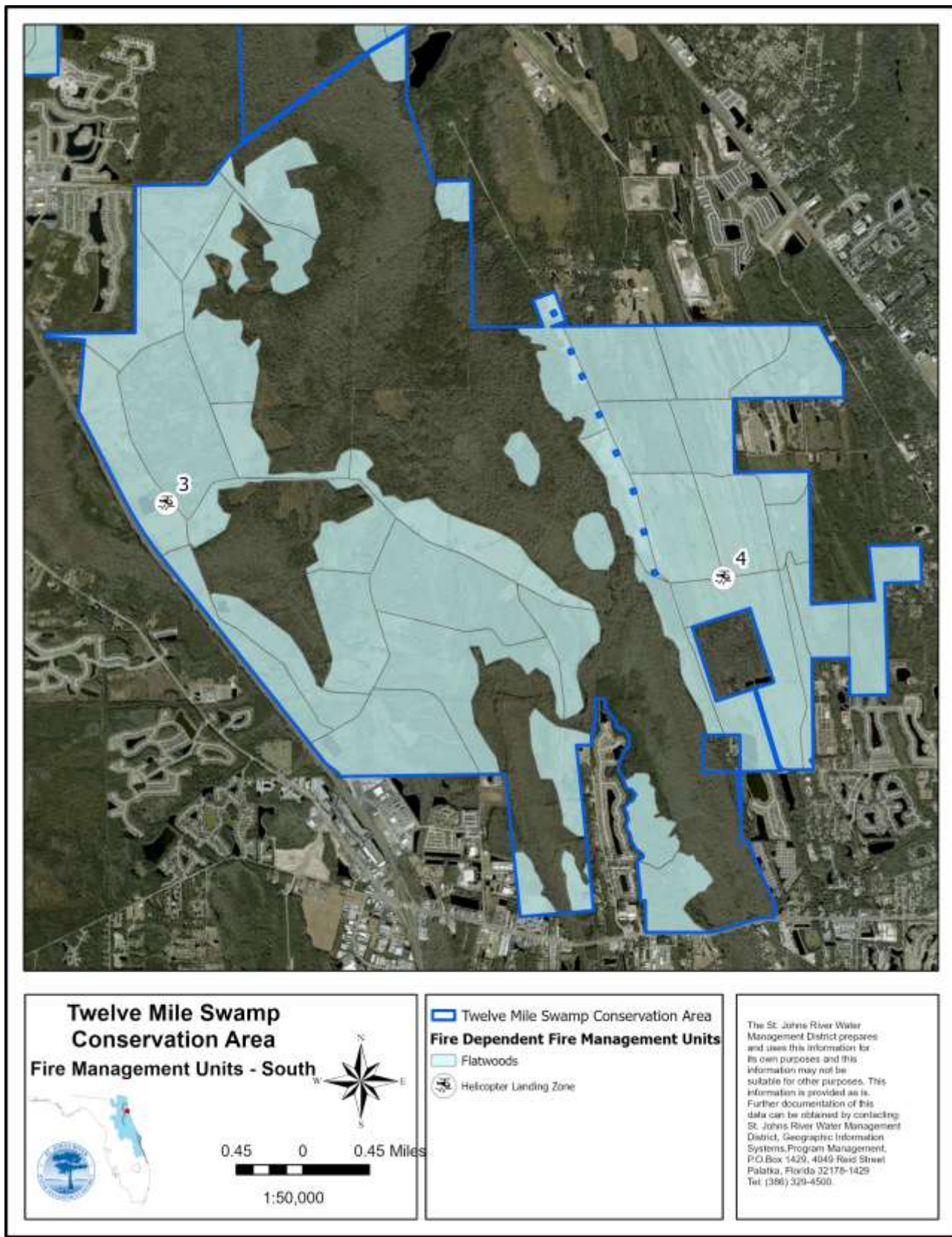


Figure 19. Twelve Mile Swamp Conservation Area South Fire Management Units

4.4 Listed and FNAI-Tracked Species

The Property has a diverse assemblage of natural communities providing significant habitat for a variety of floral and faunal species (Figure 20). To date, 19 listed and tracked species have been recorded at the Property. A short discussion follows about the notable species documented on the Property. Appendix G contains a list of listed species recorded on the Property.

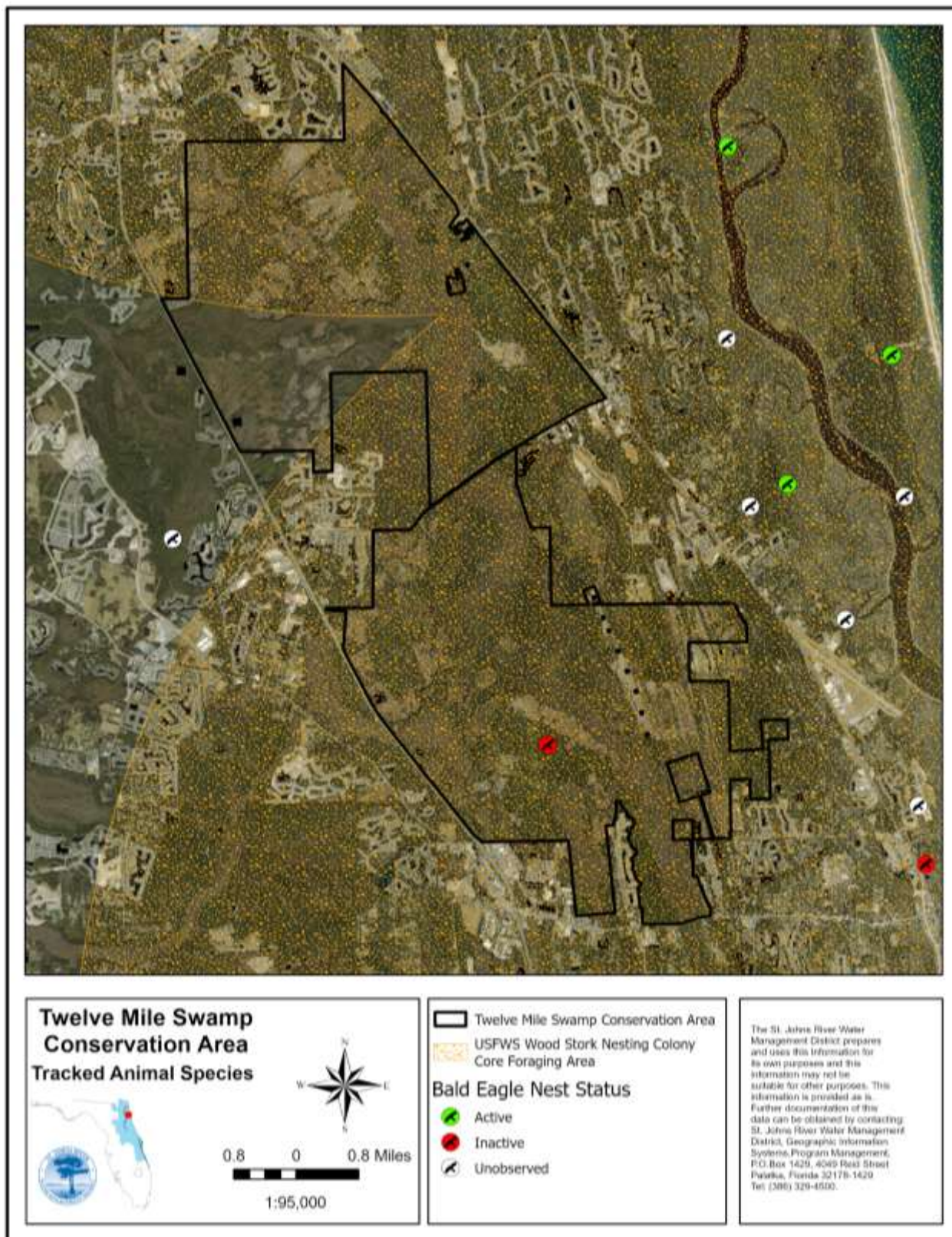


Figure 20. Twelve Mile Swamp Conservation Area Listed Flora and Fauna

Gopher tortoise

The gopher tortoise, a state threatened species, occurs within the Property. This species is typically found in dry upland habitats, such as sandhill, scrub, and pine flatwoods. Gopher tortoises excavate deep burrows and are considered a keystone species because their burrows provide refuge for more than 300 animal species.

The Property is not currently suitable as a gopher tortoise recipient site. This determination is not based on a conflict with the Property's conservation management purpose but rather on the current unknown status of the Property's existing gopher tortoise population. The District does not consider it desirable to introduce additional individuals into a population whose current status and condition have not been established. The District may partner with the FWC to conduct a gopher tortoise survey during the scope of the plan to determine population status and dynamics. In addition, the feasibility of a recipient site becoming established on the Property is further reduced due to the initial and recurring costs of managing gopher tortoise recipient sites.

Management activities within suitable gopher tortoise habitat on the Property will focus on maintaining natural fire/disturbance return intervals using prescribed fire as well as limiting soil disturbance near burrows (FNAI, 2001). The use of fire surrogates to aid in the future application of prescribed fire will benefit the gopher tortoise and its commensal species.

Wood stork

The Wood Stork (*Mycteria americana*) is a federally threatened species that occurs within the Property. This large wading bird forages in the variety of wetlands found on the Property. The conservation of these wetlands through acquisition and land management efforts provides opportunities for the wood stork to continue to recover in northern Florida (FNAI, 2001). Currently, no Wood Stork nesting colonies have been found on the Property, though the Property is within a core foraging area.

4.5 Invasive Species Management and Control

District staff perform periodic surveys on the Property to identify and manage populations of invasive plant species. The most significant invasive plant species found on the Property is Chinese tallow, though populations of camphor tree, cogongrass (*Imperata cylindrica*), and Japanese climbing fern (*Lygodium japonicum*) are present. Invasive species control is necessary to inhibit the continued proliferation of invasive plants and integral in the maintenance and restoration of natural plant communities. District staff use a variety of techniques including fire, mechanical, biological and chemical treatments in combination with the property's seasonal inundation to manage Florida Invasive Species Council (FISC) Category I and II invasive plants. Herbicide is applied per label rates using the most appropriate method of application for the target species.

The District tracks invasive plant populations and management efforts in a geodatabase that includes spatial, treatment, and density data. Retreatment reminders are provided to staff for follow-up monitoring and management. District staff use early detection rapid response methods

to identify and manage invasive plants. Due to the size of the Property, vigilant scouting and monitoring will occur.

While it is unlikely that the District will eradicate invasive plants within the Property, maintaining or achieving maintenance control of such species is targeted within the scope of this plan. For this planning period the invasives species management goal is to scout and treat invasive species annually to maintain coverage of less than 1 percent.

Since 2021, 510 acres have been scouted and treated on the Property to control Chinese tallow. This effort included a 252-acre broadcast aerial treatment. The balance of the acres consists of scouting for populations and treating by hack and squirt. Future broadcast aerial treatments may use the helicopter landing zones shown on Figure 16 and 17 and in Table 3.

Invasive wildlife species known to occur within the Property include feral hogs, brown anoles (*Anolis sagrei*), and nine-banded armadillos (*Dasypus novemcinctus*). The District utilizes feral hog removal agents through a Special Use Authorization (SUA) process or other form of authorization to assist in the control of feral hogs on the TMSCA. These agents began work in May 2026 and had removed 67 hogs through August 2026.

4.6 Public Access and Recreational Opportunities

Hiking, biking, fishing, horseback riding, photography, and wildlife viewing are allowed uses currently on the Property. Up to two reservable, primitive, hike-in campsites may be developed within the scope of this plan. Potential campsites would include, at a minimum, a campfire ring, picnic table, and two benches. Ancillary structures to facilitate fishing and/or canoe/kayaking opportunities on small waterbodies within the Property may be constructed within the scope of this plan.

While no hunting opportunities are currently offered on the Property, the District has consulted with the FWC and the FWC has determined the Property suitability for public hunting in accordance with Section 379.3001(5), F.S. Details of the hunting opportunities will be determined by the FWC, guided by its public input process, and reviewed by the District prior to implementation. The Property will likely enter the Wildlife Management Area system for the 2028–2029 hunting season.

Currently there are two public access points and parking areas for the Property, one located at the intersection of International Golf Parkway and Republic Drive, which provides access to a 2.2-mile multiuse trail. This trail will be extended up to 13 miles on the north side with exact trail alignment to be determined (Figure 21). Another parking area is located at the intersection of S.R. 16 and Circle Drive, which provides access to a 1.7-mile multiuse trail. A new parking area and multiuse trail system, up to 15 miles in length, will be developed to provide access to the southern portion of the Property with exact trail alignment to be determined (Figure 22). Additional trails maybe added within the scope of this plan. Existing parking areas may be expanded to accommodate more vehicles and/or vehicles with trailers, and up to three additional parking areas, aside from the area shown on Figure 20, may be constructed within the scope of this plan with siting to be determined. All parking areas will utilize natural material, such as lime rock, as a base. Access will be provided to areas of the Property both north and south of International Golf Parkway.

The Property has an extensive road system comprised of various stabilization materials including rock, dirt, and grass. Portions of this system will be utilized for the expansion of the multiuse trail system. The trail stabilization material will be maintained as needed but will not include impervious material. All trails will be multiuse and open for hiking, biking, and horseback riding. Separate exclusive use trails for individual user groups will not be provided.

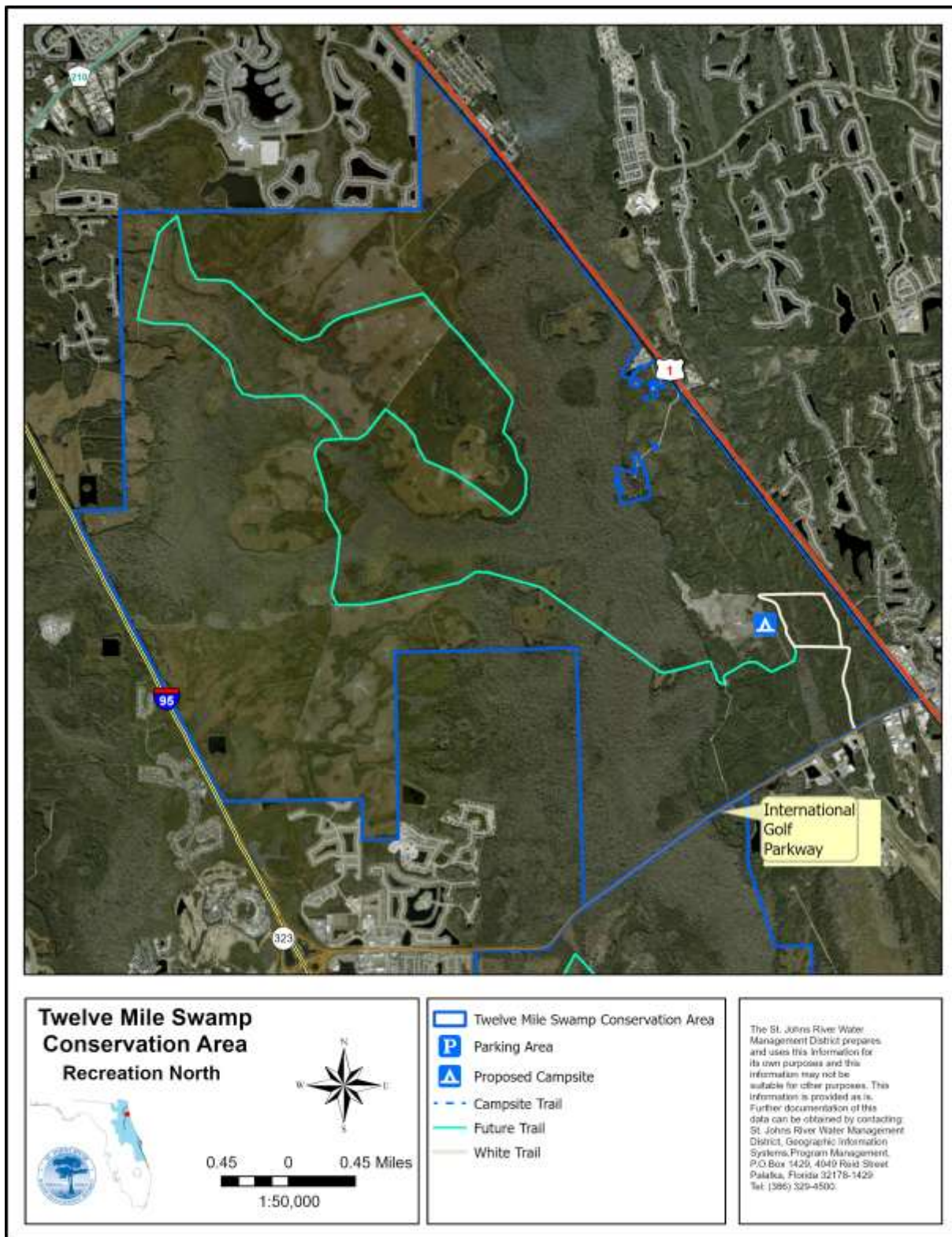


Figure 21. Twelve Mile Swamp Conservation Area Recreational Amenities North

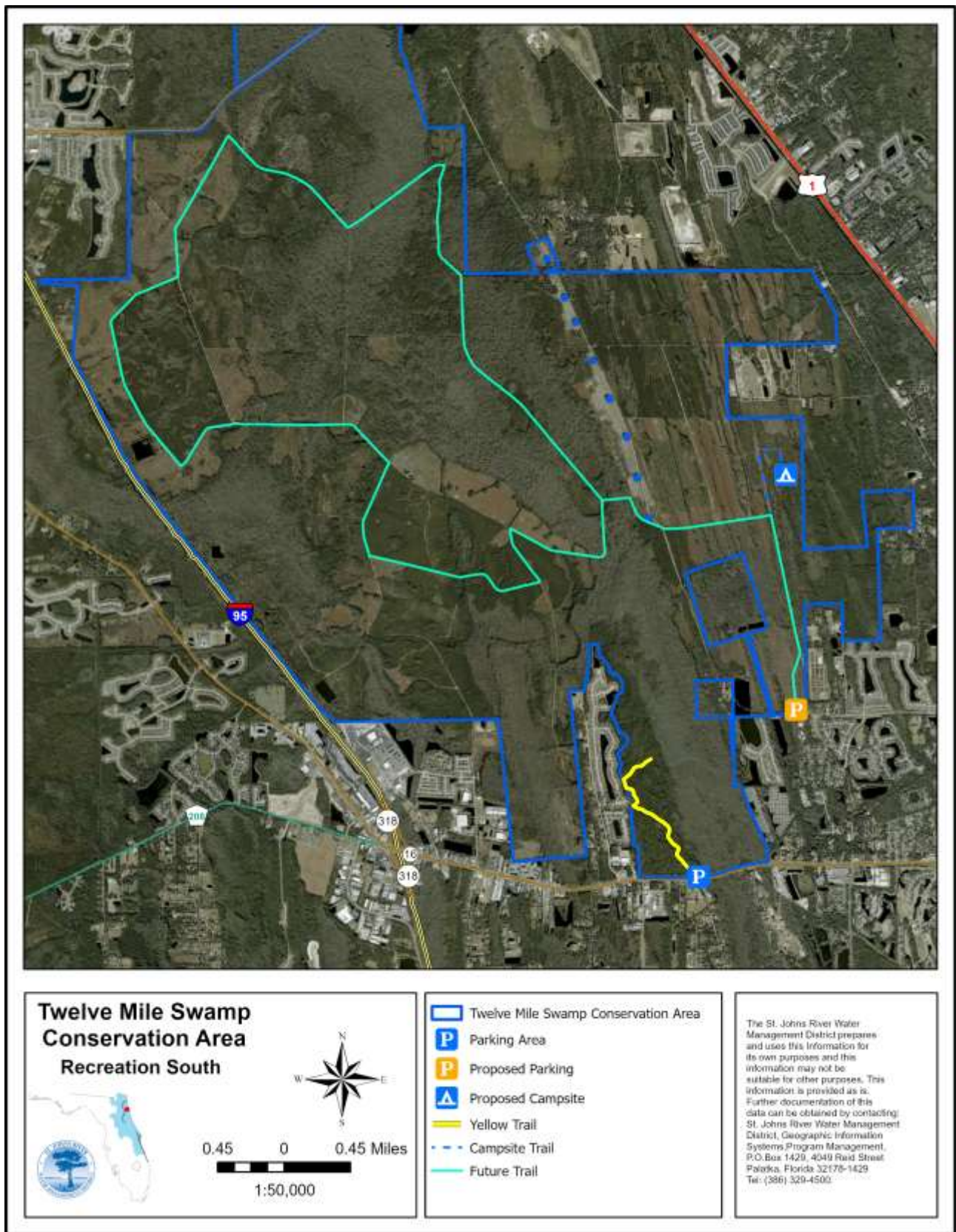


Figure 22. Twelve Mile Swamp Conservation Area Recreational Amenities Recreation South

4.7 Hydrological Preservation and Restoration

The acquisitions that comprise the Property provide for significant hydrological preservation by protecting the headwaters of six major tributary systems. Three of these tributaries, Turnbull Creek, Mill Creek, and Sampson Creek, discharge into the St. Johns River. Two others, Moultrie Creek and Red House Branch, discharge into the Matanzas River, while Stokes Creek discharges into the Tolomato River. The Property protects the water quality and quantity of these creek systems and benefits the groundwater and water supply for this area of St. Johns County.

During the scope of this plan, the retirement and hydrologic restoration of roads and canals that were constructed into the swamps to provide access to log those swamps beginning in the 1960's will begin to occur. The material that was used to construct these elements was pulled from the surrounding area, altering the surface flow of the swamp. Efforts will be made to identify elements that have the most deleterious hydrologic impact and use the spoil or road material to return the area to near natural grade as possible. Through this process, the hydrology of these swamps will improve.

Any hydrologic restoration efforts will take into consideration the current state of the wetland and adjacent upland, natural communities to ensure these communities or their associated imperiled aquatic/semi-aquatic species are not damaged during the restoration process.

Regular water resource infrastructure maintenance occurs on the roads, culverts, ditches, and low water crossings on the Property (Figure 23). Culverts may be converted to low water crossings, as determined by site conditions and access requirements, to provide for a less restrictive hydrologic flow.

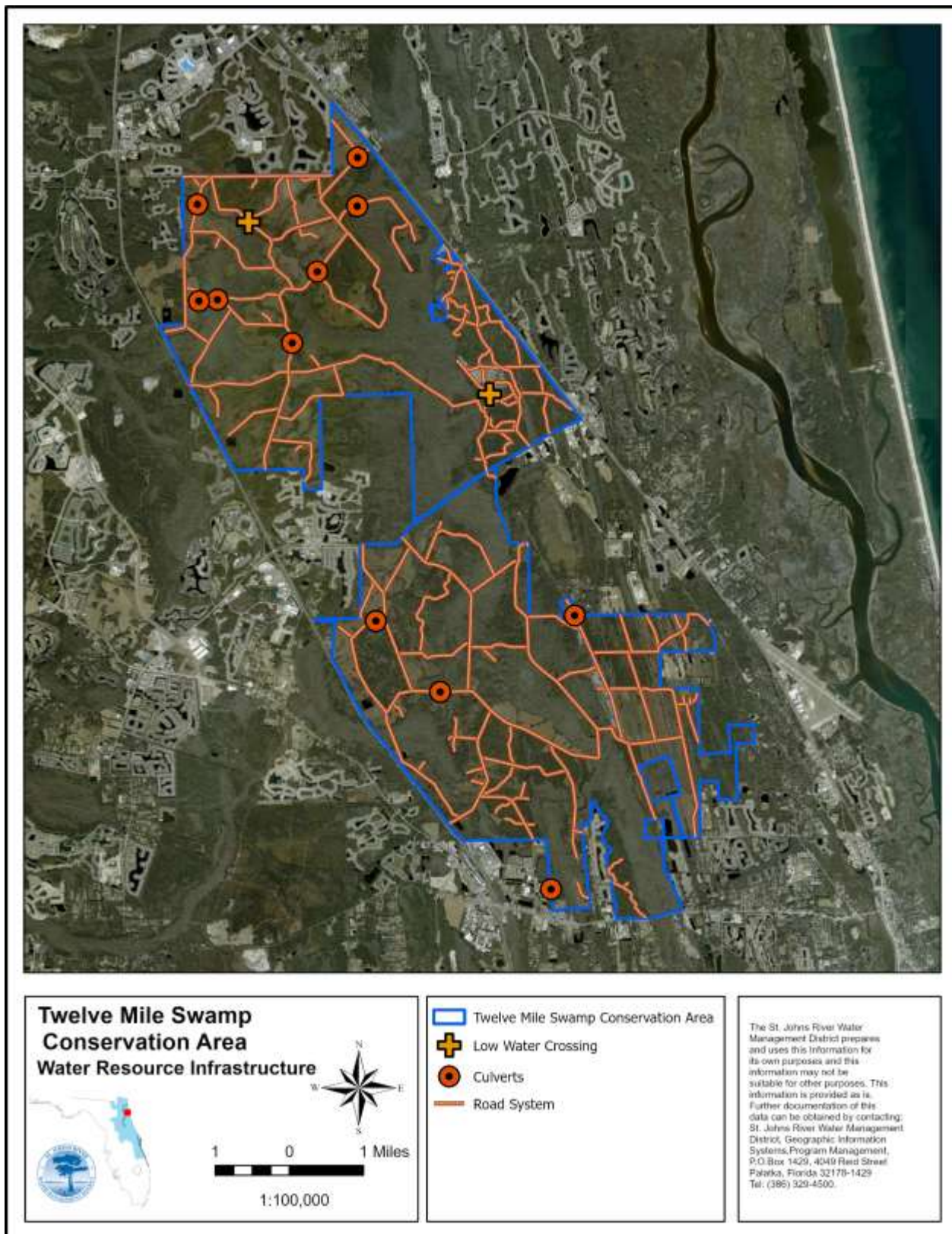


Figure 23. Water Resource Infrastructure

4.8 Forest Resource Management

Forest management is an integral portion of the overall land management strategy at the District and actions undertaken will target the achievement of appropriate overstory species in proper stand densities as described in the District Forest Management Plan (Appendix I). A detailed forest inventory of upland pine silvicultural stands (Figure 24) will be completed for the Property within the scope of this plan. This inventory will provide the needed information to determine ecological timber stand improvement projects that will then be included in the District's timber harvest plan and forest management database. Harvest operations and reforestation events that may occur over time are also recorded in the database.

The forest management objectives of the Property will require periodic pine thinning to control tree density. Periodic thinning harvest provides some protection against intensity of wildfires and pine beetle outbreaks. Clearcut/reforest operations may also be utilized in the scope of this plan for insect or disease control, salvage after overstory has been killed or severely damaged, or species conversion. Forest management activities anticipated during the scope of this plan include timber inventory, thinning, and reforestation operations. Reforestation projects may be preceded by various site preparation techniques including mechanical treatments, such as disc harrowing to remove silvicultural bedding, roller drum chopping and mowing, herbicide applications, and prescribed fire.

In addition to forest management activities contained within the to-be-developed timber harvest plan, the District will remove trees as needed due to insect infestations, disease, and damage from severe weather, wildfire, or other occurrences that could jeopardize the health of natural communities. The District will abide by Florida Silviculture BMPs and Florida Forestry Wildlife BMPs for State Imperiled Species.

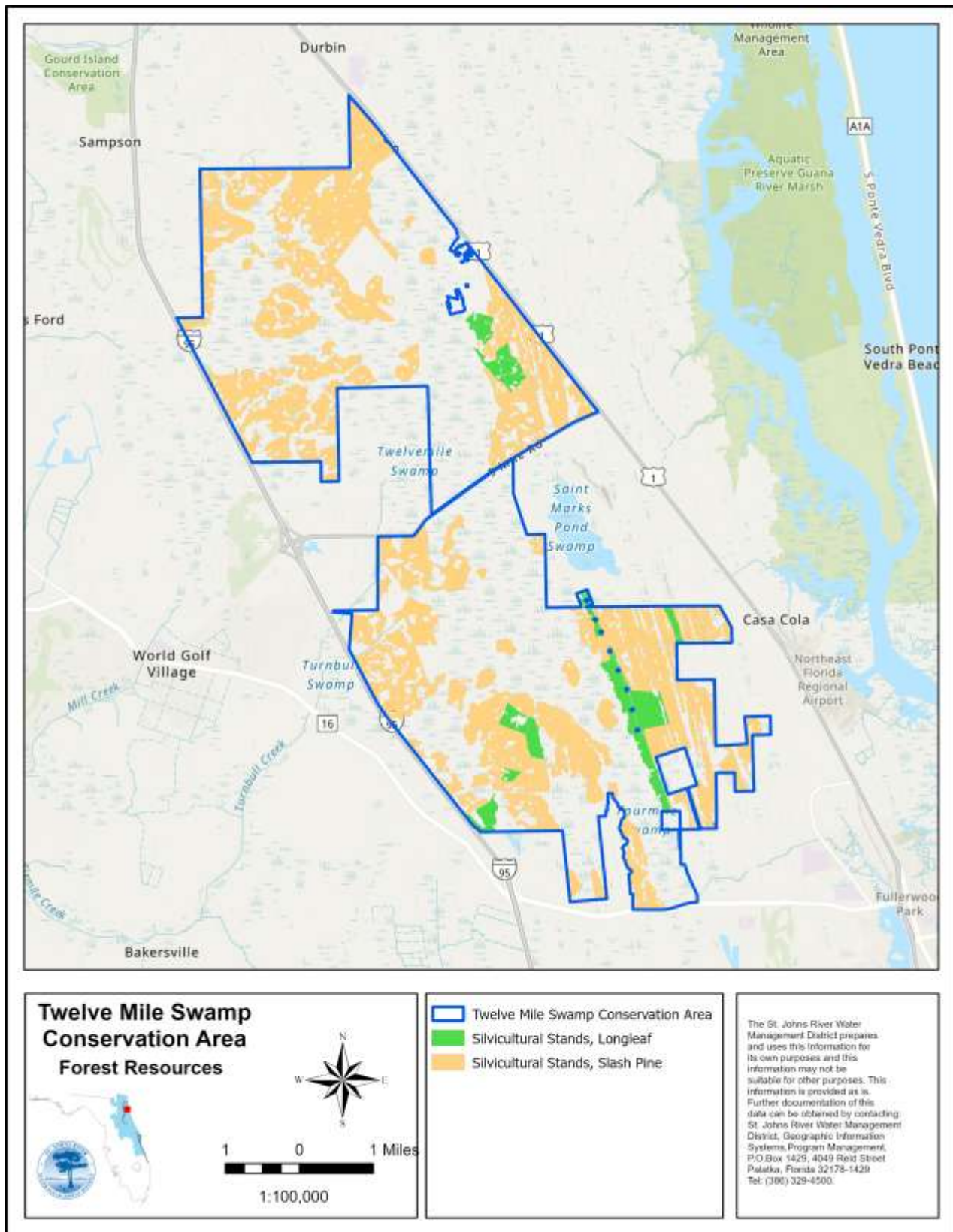


Figure 24. Twelve Mile Swamp Conservation Area Forest Resources

4.9 Cultural Resources

There are seven cultural sites on the Property (Table 2). A site assessment was conducted in spring 2026 by District and FPAN staff.

The District will consult with the Florida Division of Historical Resources (DHR) before taking actions that may adversely affect archeological or historical resources. If District staff discover 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 the appropriate law enforcement agencies. The location of the sites is not identified on public maps. The District will follow the management procedures outlined in “Management Procedures of Archaeological and Historical Sites and Properties on State-owned or Controlled Lands” (Appendix J).

4.10 Capital Facilities and Road Infrastructure

There are approximately 96 miles of land management access roads on the Property (Figure 25). All are grass/dirt roads classified as secondary roads. Roads mowing is conducted by a District contractor. Some roads may be retired or moved to another use, such as a fire line, if deemed of low utility for land management access. There are 31 gates that provide access to and within the Property. Several internal gates that were utilized for the previous hunting lease may be removed if deemed to have low land management utility within the scope of this plan.

Construction of new capital facilities within the scope of this plan includes the construction of two security residences using modular buildings as well as the associated infrastructure to support these buildings on disturbed areas of the Property. Land management equipment sheds may also be constructed within the area of the security residences. The specific locations of the residences will be determined based on area of need, proximity to existing infrastructure, and adjacent natural communities.

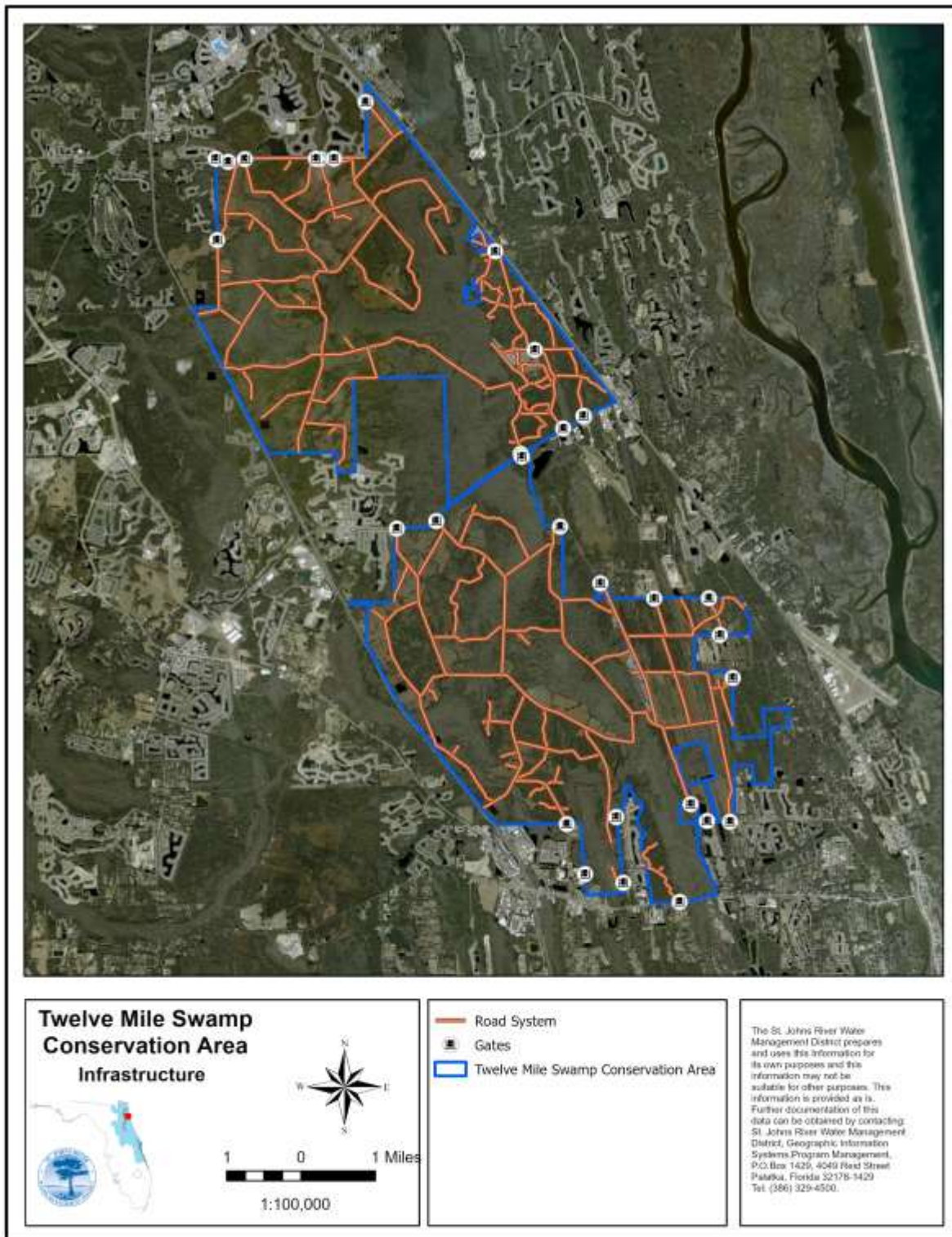


Figure 25. Twelve Mile Swamp Conservation Area Road Infrastructure

4.11 Optimal Boundary

The optimal boundary of the TMSCA is limited by existing developments, planned developments, and infrastructure. The 15-acre inholding, which would provide a cleaner management boundary, and 267 acres to the east of the Property, which will provide a buffer to existing development, are high priorities (Figures 26 and 27).

There are no parcels identified for surplus though a state road right-of-way could be constructed within the scope of this plan (Figure 3). This potential state road was planned before the acquisition of the Property.

Pursuant to section 373.139, F.S., the District may explore and pursue the surplus of portions of its land. The District's interest in surplus land may arise from a variety of considerations, including but not limited to:

- A property purchased as part of a larger acquisition and the surplus portion is not needed for District purposes but was included to complete a larger acquisition
- The original project for which a property was purchased was ultimately not built
- A property is part of a patchwork of conservation ownership, managed by another agency or local government, and the surplus is to transfer the ownership to the entity managing the properties for conservation purposes
- Actions by adjacent owners that lower a property's conservation value or increase management costs

Any surplus of District-owned property requires the approval of the District's Governing Board. If the property in question was originally purchased for conservation purposes, the Governing Board must determine that the land is no longer needed for conservation purposes, which requires two-thirds vote (Section 373.089, F.S.).

If it is found to be in the public interest and for public convenience and welfare, the District may also convey land or rights of land owned to any governmental entity. When transferring land, the District may retain a conservation easement over the property and/or include a reverter provision in the deed. This provides for the future conservation of the property and to ensure the property remains in public ownership.

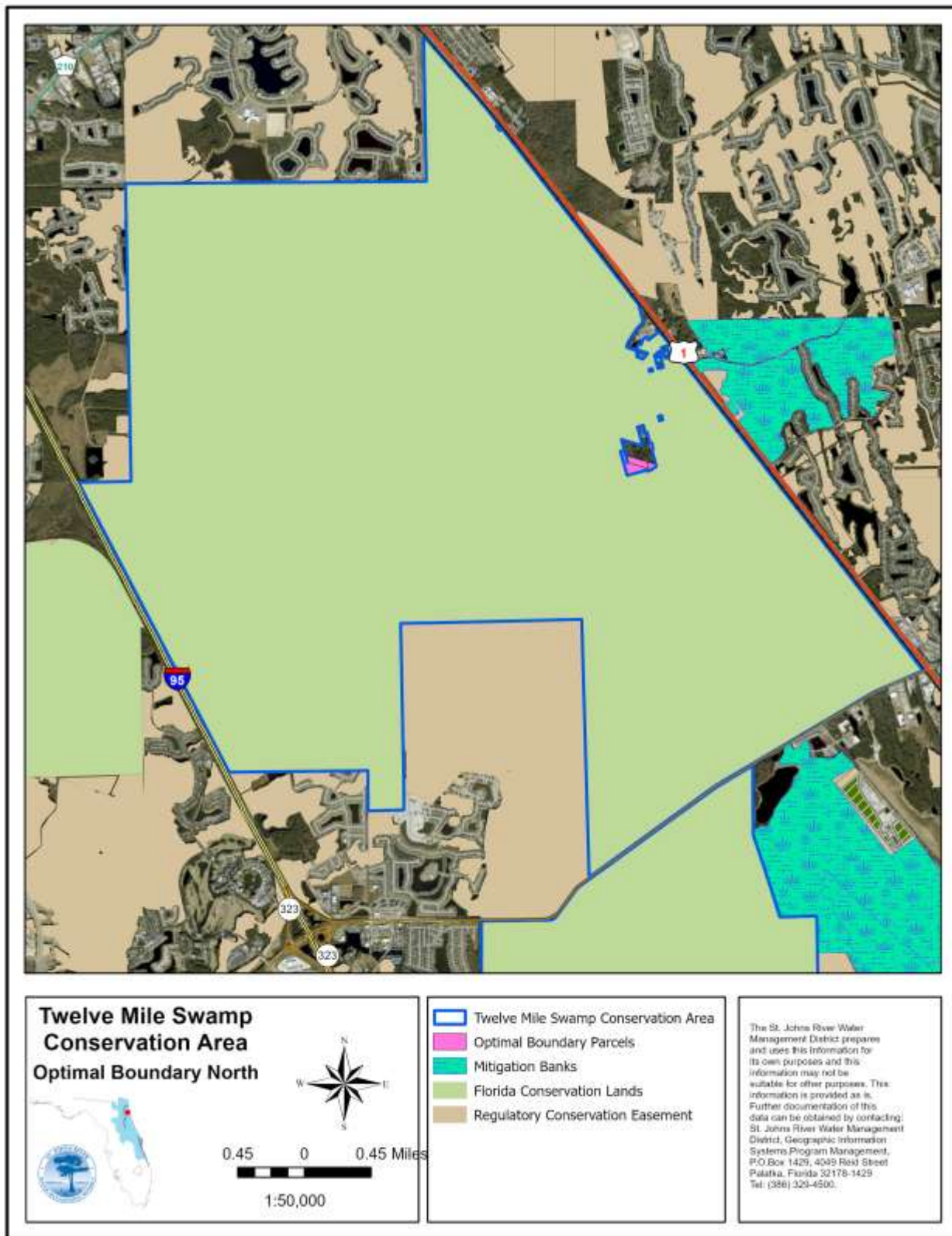


Figure 26. Twelve Mile Swamp Conservation Area Optimal Boundary North

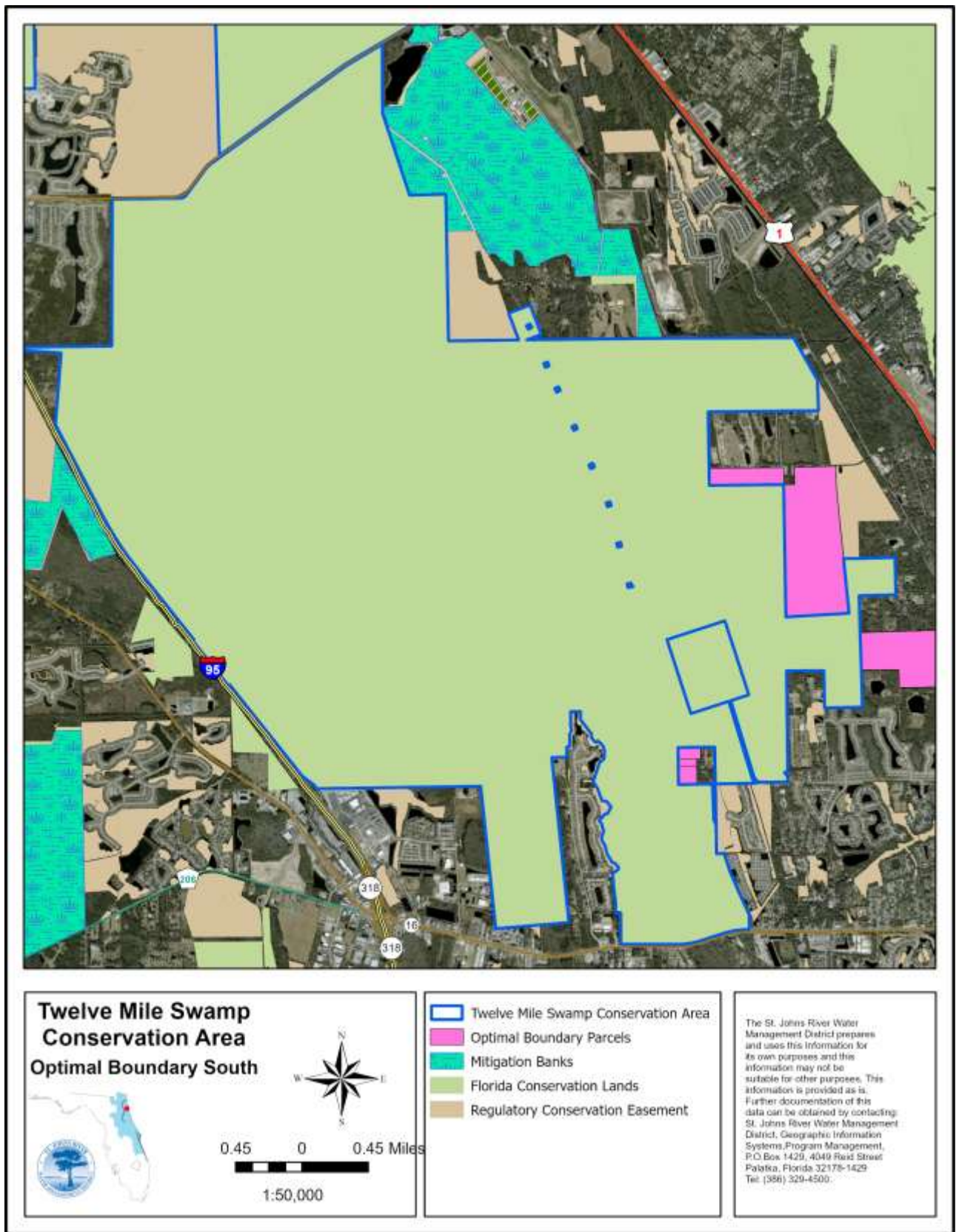


Figure 27. Twelve Mile Swamp Conservation Area Optimal Boundary South

4.12 Research Opportunities and Outreach

The District has in place an SUA process (rule 40C-9.360, Florida Administrative Code) for research projects and other uses. To obtain an SUA, the applicant must provide reasonable assurance that:

- The requested use will not involve the permanent alteration of any District Land or the permanent placement of any structure on District Land;
- The requested use is resource-based;
- The requested use is consistent with the management plan for the District Lands involved;
- The requested use will not harm the environmental resources of the District Land;
- The requested use will not cause unreasonable expense to the District;
- The requested use will not create a substantial risk of liability to the District;
- The requested use will not harm any dam, impoundment, works, water control structures, roads, or District-owned facilities or equipment;
- The requested use will not interfere with District water management, leased, or authorized uses of the land; and
- The requested use will not interfere with any other use allowed by chapter 40C-9, Florida Administrative Code.

4.13 Soil Conservation

The Property provides significant soil and water resource protection benefits. These include flood protection to the surrounding area and water quality protection for Twelve Mile Swamp and its tributaries. The District will follow all soil erosion and silvicultural BMPs on the Property.

4.14 Cooperating Agencies

Section 373.1391, F.S., authorizes and encourages the District to enter into cooperative land management agreements with state agencies or local governments to provide for the coordinated and cost-effective management of lands to which the water management districts, the Board of Trustees, or local governments hold title. District Policy No. 820 promotes the District entering into agreements with other agencies and private parties for cooperation and coordination of management of the District's lands. In addition, the District is authorized to enter into cooperative agreements, cooperative management leases, leases, easements, and SUAs to protect the District's water management interests and to enhance the management and public value of the land. Leases can be a useful tool to accomplish land management objectives and will be evaluated and implemented where appropriate. Common examples include cattle grazing and apiaries. The District remains open to considering other types of leases, including those that predate District management or ownership, which help achieve management goals.

The District cooperates with the DHR regarding the management of cultural resources, the FWC regarding the management of wildlife resources, the FWC and the St. Johns County Sheriff's office for law enforcement, and the Florida Forest Service (FFS) for wildfire response.

4.15 Arthropod Control Plan

The Property falls within the Anastasia Mosquito Control District. An Arthropod Control Plan has not been developed for the Property with the Mosquito Control District, though the Property is included within the Anastasia County Mosquito Control District-wide operating plan for public safety (Appendix K).

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 the Property. The stated time period for short-term goals is less than 2 years and for long-term goals is up to 10 years. There are both short- and long-term goals in this plan.

5.1 Habitat Restoration and Improvement and Prescribed Fire Management

Goal: Maintain, improve, or restore natural communities

Short Term

- a. Refine FMU attributes
- b. Identify FMUs that can receive prescribed fire

Long Term

- a. Conduct at least 2,126 acres of prescribed fire or fire surrogates annually, averaged over the 10-year planning period
- b. Evaluate forest stands, post-harvest, which may benefit from habitat and/or hydrologic restoration and improvement

5.2 Listed Species Management

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

Short Term – included in Long Term

Long Term

- a. Monitor for population changes in listed animal and plant species utilizing District staff, cooperating agency staff, and volunteers, such as the Florida Native Plant Society

- b. Determine the extent of suitable habitat and implement management strategies to improve gopher tortoise habitat quality and distribution, and establish a baseline gopher tortoise population estimate

5.3 Public Access and Recreational Opportunities

Goal: Provide public access and recreational opportunities

Short Term

- a. Develop new multi-use trails for hiking, biking, and horseback riding
- b. Develop up to two reservable, primitive, hike-in campsites.
- c. Assess feasibility of installing ancillary structures on interior ponds to enhance fishing opportunities and launch canoes/kayaks
- d. Develop up to four new parking areas for expanded property access
- e. In conjunction with the FWC, evaluate feasibility of incorporating the Property into the WMA system

Long Term

- a. Maintain multiuse trail system and parking areas
- b. Incorporate feedback from annual regional recreational public meetings

5.4 Hydrological Preservation and Restoration

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

Short Term

- a. Evaluate culvert crossings and low water crossings for replacement or repair

Long Term

- a. Identify and evaluate feasibility of removing certain roads and canals that are producing deleterious effects on the hydrology of the Property
- b. Replace culvert crossings and low water crossings as needed

5.5 Invasive Species Maintenance and Control

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

Short Term

- a. Scout the Property to gather additional data on invasive species populations

Long Term

- a. Maintain invasive species coverage to less than 1% of the acreage of the Property
- b. Maintain geodatabase on locations of invasive plant species
- c. Treat invasive plant species as they are located to prevent further infestation
- d. Monitor Property-wide trends of invasive species population size
- e. Continue to monitor the feral hog population and maintain SUAs or other authorizations for the feral hog trapping program

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. Site locations for two security residences

Long Term

- a. Maintain and evaluate sections for retirement the approximately 96 miles of roads
- b. Maintain and evaluate for removal the 31 gates on the Property
- c. Construct two security residences

5.7 Forest Resources

Goal: Ecologically manage the Property's forest resources

Short Term

- a. Conduct timber stand mapping and forest inventory
- b. Assess stands for timber stand improvement projects

Long Term

- a. Maintain forest inventory data
- b. Conduct timber stand improvement projects as guided by data contained in the forest management database and onsite observations
- c. Conduct as needed timber harvests, including clearcut/reforest operations, to control insect and/or disease outbreaks, salvage forest resources after wildfires or other occurrences that could jeopardize the health of natural communities

5.8 Cultural Resources

Goal: Protect and maintain the cultural resources of the Property

Short Term – Included in Long Term

Long Term

- a. Annually monitor, protect, and preserve the seven cultural sites in accordance with DHR procedures
- b. Ensure all known sites are recorded in the DHR Master Site file
- c. Work with the DHR and the FPAN to document any new sites and train additional staff in Archeological Resource Monitoring

5.9 Research Opportunities

Goal: Explore and pursue cooperative research opportunities

Short Term – Included in Long Term

Long Term

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

5.10 Outreach

Goal: Provide information to the public regarding management activities

Short Term

- a. Ensure activities that occur on the Property are reported at the annual recreational public meeting and provide the public with an opportunity for comment

Long Term

- a. Convene an MRT every 5 years to ensure the land management plan is being followed

6. Ten-Year Implementation Schedule, Measures, and Cost Estimates

ST=Short-term planning period 0–2 years from plan inception

LT=Long-term planning period 0–10 years from plan inception

Table 4. 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	Refine FMU attributes	Attributes edited	ST	\$1,000	\$10,000
Objective B	Identify FMUs that can receive prescribed fire	Acres treated	ST	Included in Objective C	Included in Objective C
Objective C	Conduct at least 2,126 acres of prescribed fire or fire surrogates annually, averaged over the 10-year planning period	Acres treated	LT	\$98,075	\$980,750
Objective D	Evaluate forest stands, post-harvest, which may benefit from habitat and/or hydrologic restoration and improvement	Acres evaluated	LT	-	-
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	Monitor for population changes in listed animal and plant species utilizing District staff and volunteers such as the Florida Native Plant Society	Populations monitored	LT	-	-
Objective B	Determining the extent of suitable habitat, implementing management strategies to improve habitat quality and distribution, and establishing a baseline gopher tortoise population estimate	Acres of suitable habitat	LT	\$1,500	\$15,000
GOAL 5.3	Provide public access and recreational opportunities	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Develop multi-use trails for hiking, biking, and horseback riding	Trails created	ST	\$2,000	\$20,000
Objective B	Develop up to two reservable, primitive, hike-in campsites	Campsites developed	ST	\$6,000	\$60,000
Objective C	Assess feasibility of installing ancillary structures on interior ponds to enhance fishing opportunities and launch canoes/kayaks	Assessment occurred	ST	-	-
Objective D	Develop up to four new parking areas for expanded property access	Areas developed	ST	\$3,000	\$30,000
Objective E	In conjunction with the FWC, evaluate feasibility of incorporating the Property into the WMA system	Evaluation occurred	ST	-	-
Objective F	Maintain multi-use trail system, campsites and parking areas	Sites maintained	LT	Included in Objectives A and B	Included in Objectives A and B
Objective G	Incorporate feedback from annual regional recreational public meeting	Feedback received	LT	-	\$1,000

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	Evaluate culvert crossings for replacement or repair	Features replaced or repaired	ST	\$13,200	\$132,000
Objective B	Identify and evaluate feasibility of removing certain roads and canals, which are producing deleterious effects on the hydrology of the Property		LT	\$20,000	\$200,000
Objective C	Replace culvert crossings and low water crossings as needed		LT	Included in Objective A	Included in Objective A
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	Scout the Property to gather additional data on invasive species populations	Acres scouted	ST	Included in Objective B	Included in Objective B
Objective B	Maintain invasive species coverage to less than 1% of the acreage of the Property	Acres treated	LT	\$29,200	\$292,000
Objective C	Maintain geodatabase on locations of invasive plant species	Database maintained	LT	\$5,000	\$50,000
Objective D	Treat invasive plant species as they are located to prevent further infestation	Acres treated	LT	Included in Objective B	Included in Objective B
Objective E	Monitor the Property-wide trends of invasive species population size	Change in acres treated	LT	Included in Objective B	Included in Objective B
Objective F	Continue to monitor the hog population and institute control measures on feral hogs, where needed, using Special Use Authorizations or other types of authorizations	Number of hogs removed	LT	-	-
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	Site locations for two security residences	Locations determined	ST	Included in Objective D	Included in Objective D
Objective B	Maintain and evaluate sections for retirement the approximately 96 miles of roads	Miles maintained	LT	\$35,000	\$350,000
Objective C	Maintain and evaluate for removal the 31 gates on the Property	Gates maintained	LT	\$1,000	\$7,000
Objective D	Construct two security residences	Residences constructed	LT		\$400,000
GOAL 5.7	Manage the Property's forest resources to support the health of natural communities	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Conduct timber stand mapping and inventory	Inventory completed	ST	\$1,000	\$10,000
Objective B	Assess stands for timber stand improvement projects	Assessments completed	ST	Included in Objective D	Included in Objective D
Objective C	Maintain forest inventory data	Database maintained	LT	\$500	\$5,000
Objective D	Conduct timber stand improvement projects as guided by data contained in the forest management database and onsite observations	Projects completed	LT	-	-
Objective E	Conduct as needed timber harvests, including clearcut/reforest operations, to control insect and/or disease outbreaks, salvage forest resources after wildfires or other occurrences that could jeopardize the health of natural communities	Projects completed	LT	-	-
GOAL 5.8	Protect and maintain the cultural resources of the Property	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Annually monitor, protect, and preserve the seven documented sites in accordance with DHR procedures	Sites protected and monitored	LT	-	-

Objective B	Ensure all known sites are recorded in the DHR Master Site file	All sites recorded	LT	-	-
Objective C	Work with the DHR and FPAN to document any new sites and train additional staff in Archeological Resource Monitoring	Site protected	LT	-	-
GOAL 5.9	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	LT	-	-
Objective B	Continue to assess the need for and pursue research and environmental education partnership opportunities as appropriate	Partnerships created	LT	-	-
GOAL 5.10	Provide information to the public regarding management activities	MEASURE	PLANNING PERIOD	ESTIMATED COST (per year)	ESTIMATED COST (10 year)
Objective A	Ensure activities that occur on the Property are reported at the annual recreational public meeting and provide the public an opportunity for comment	Number of Recreational Public Meeting completed	LT	-	\$500
Objective B	Convene an MRT every 5 years to ensure the land management plan is being followed	Number of Management Review Teams completed	LT	-	\$500
ESTIMATED COST TOTALS				\$216,475	\$ 2,164,750

7. Resource Management Challenges and Strategies

The greatest resource management challenges at the Property are smoke management from prescribed fires and developmental pressures surrounding the TMSCA.

Smoke management from prescribed fires is a challenge on the Property, as it is throughout Florida. The Property's placement within an urban area, as well as its proximity to I-95 and several state roads, creates a very narrow smokedshed. This results in the need to scale down the size of the burns, which may increase the fire-return intervals due to limited annual burn days. Fire surrogates will be used to reduce fuel structure and aid in maintaining the optimal fire and disturbance regime for the natural communities on the Property. However, the surrogates to prescribed fire are significantly more expensive per acre.

As this area becomes more developed, the smokedshed will decrease, compounding the challenge to applying prescribed fire, as well as increasing the chance for illegal entry and dumping.

Lastly, land management personnel cover multiple counties, conservation areas and duties. This results in longer response times to issues and competing responsibilities. Having security residents on the Property will help alleviate these issues.

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

The District contracts and oversees private vendors to accomplish fuels management, larger infrastructure repairs, and invasive species control.

9. Compliance with Federal, State, and Local Government Requirements

Management of the Property under the multiple-use concept complies with the State Lands Management Plan.

10. Revenue and Expenses

The revenue generated by the Property is unknown at this time, but revenue may be generated by timber harvest and leases. In an average year, expenses, including District staff time and one time, capital projects, are approximately \$269,575. Table 5 summarizes the projected expenses incurred by the District over the next 10 years. All projects are subject to budget availability. .Revenue may be generated during the term of this plan, principally through timber harvest, but is not projected due to currently unknown timber stand metrics and market conditions.

Table 5: Projected Expenses at Twelve Mile Swamp Conservation Area 2025–2035

PROJECTED EXPENSES

Activity	Unit/Year	Total Expense Over 10 Years	Agency Responsibility
Invasive plant management	215 acres	\$342,000	District
Prescribed fire and fire surrogates	2,126 acres	\$980,750	District
Trails/parking areas, campsite creation and maintenance	New trail development/2 campsites Up to 4 parking areas	\$110,000	District
Road and gate maintenance and mowing	96 miles/31 gates	\$360,000	District
Hydrologic improvement/maintenance	Culverts/low water crossings installed/maintained	\$132,000	District
Artificial ditch filling and grading	Project completed	\$200,000	District
Capital improvement repairs and maintenance	Two security residences	\$400,000	District
Public outreach	Management Review Team	\$1,000	District
Forest stand mapping and inventory	Inventory completed	\$15,000	District
Gopher tortoise population survey	Survey completed	\$15,000	District
Staff time	4,000 hours	\$140,000	District
Total		\$2,695,750	

11. References

- Florida Natural Areas Inventory (FNAI), 2000, *Field Guide to the Rare Plants of Florida*, Tallahassee, FL.
- Florida Natural Areas Inventory (FNAI), 2001, *Field Guide to the Rare Animals of Florida*, Tallahassee, FL.
- Florida Natural Areas Inventory (FNAI), 2010, *Guide to the Natural Communities of Florida*. Tallahassee, FL.
- Florida Natural Areas Inventory (FNAI), 2009, *Reference Natural Communities Geodatabase*. Tallahassee, FL.
- Official Soil Series Descriptions – USDA-NRCS Soil Survey Division.
- St. Johns River Water Management District (SJRWMD), 2025a. *2025 Status and Trends Report* https://experience.arcgis.com/experience/30018d0316534d608347f3a9a9aa519b/page/Status-and-Trend?views=Surface-Water_ Accessed October 9, 2026
- St. Johns River Water Management District (SJRWMD), 2025b. *2026- 2030 Strategic Plan*. <https://aws.sjrwmd.com/SJRWMD/plans/SJRWMD-Strategic-Plan-2026-2030.pdf> Accessed October 9, 2026
- Williams et al. 2022. *Florida Geomorphology Atlas*. Florida Geological Survey Special Publication no. 59. Tallahassee, FL.
https://publicfiles.dep.state.fl.us/FGS/Geological_Investigations/Gemorphology/SpecialPublication59/FloridaGeomorphologyAtlas_SP59.pdf Accessed March 5, 2025

Appendix A - Trustees Lease

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

21,898.14 Acres

COOPERATIVE LEASE AGREEMENT
TWELVE MILE SWAMP CONSERVATION AREA

Lease Number 4400

This Lease is made and entered into this 20th day of June, 2003,
between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND
OF THE STATE OF FLORIDA, (as to its undivided 50 % interest), hereinafter referred to as
"LESSOR", and the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT hereinafter
referred to as the "LESSEE".

WITNESSETH:

WHEREAS, the LESSOR and LESSEE each own an undivided 50% interest in certain
lands acquired for public purposes; and

WHEREAS, the LESSOR is authorized in Section 253.03, Florida Statutes, to enter into
leases for the use, benefit and possession of public lands by State agencies, which may properly
use and possess them for the benefit of the people of the State of Florida; and

WHEREAS, the LESSEE is empowered to enter into cooperative land management
agreements with state agencies or local governments to provide for coordinated and cost-
effective management of lands, pursuant to Section 373.1391 (4), Florida Statutes.

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements
hereinafter contained, LESSOR leases its undivided 50% interest of the below described
premises to LESSEE subject to the following terms and conditions:

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

2. **DESCRIPTION OF PREMISES:** The property subject to this Lease, known as the
Twelve Mile Swamp Conservation Area (Cummer Trust Property), is situated in the County of
St. Johns, 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 fifty (50) years, commencing on
June 27, 2003, and ending on June 26, 2053 unless sooner
terminated pursuant to the provisions of this Lease.

4. **PURPOSE:** The Leased Premises is divided into three separate management parcels,
identified as "Parcel A", "Parcel B", and "Parcel C", as shown in Exhibit "B" attached hereto and
by this reference made a part hereof. Parcels A, B and C are subject to an existing timber lease
("Rayonier Lease") between Cummer Lime and Manufacturing Company and Cummer Sons
Cypress Company and Owens-Illinois Glass Company, dated December 28, 1959, as amended

and subsequently assigned to Rayonier Woodlands L.L.C. ("Rayonier"). LESSEE shall manage Parcel A of the Leased Premises only to monitor silviculture management by Rayonier consistent with the Rayonier Lease until its termination on December 31, 2025, when LESSEE shall become the lead management agency for the entire Leased Premises. LESSEE shall manage Parcel B to monitor the management of and harvesting of existing upland planted pine timber by Rayonier consistent with the Rayonier Lease until its termination on December 31, 2025, and for public access and compatible resource based public outdoor recreation. LESSEE shall manage Parcel C for protection of natural and historical resources as set forth in subsection 259.032 (11), Florida Statutes, and Section 373.59, Florida Statutes, as amended, along with other authorized uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 9 of this Lease. LESSOR and LESSEE further agree that all matters provided herein shall be subject to the rights of Rayonier under the terms and conditions of the Rayonier Lease. Following the termination of the Rayonier Lease, the LESSEE shall manage the entire Leased Premises only for the conservation and protection of natural and historical resources and resource based public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 259.032 (11), Florida Statutes, and Section 373.59, Florida Statutes, as amended, along with other authorized uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph 9 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 LESSEE of the rights conveyed herein.
6. AUTHORIZED USES: Authorized uses for the purposes of this Lease shall be defined as those management activities that LESSEE is authorized to perform under this Lease, subject to the Rayonier Lease and the approved Management Plan. The authorized uses shall be consistent with statutory requirements that require that the Leased Premises be managed and maintained in an environmentally acceptable manner to restore and protect in its natural state and condition, including permitting of compatible recreational use in Parcel B. The authorized uses shall at a minimum always include essential site management measures including, but not limited to, security, resource protection, public access and recreational use, habitat management and enhancement of land use control.
7. LESSOR'S RIGHTS: Interim activities that are undertaken prior to the review and approval of the Management Plan shall be evaluated in accordance with guidance provided in the "LIST OF ARC/DIVISION OF STATE LANDS APPROVED INTERIM MANAGEMENT ACTIVITIES," issued May 8th, 2001 and attached hereto as Exhibit "C".
8. UNAUTHORIZED USES: LESSEE shall, through its agents and employees, prevent the unauthorized use of the Leased Premises or any use thereof not in conformance with approved interim management activities, this Lease, or the approved Management Plan.
9. MANAGEMENT PLAN: LESSEE shall prepare and submit a Management Plan for the Leased Premises, in accordance with Section 253.034, Florida Statutes, and Chapter 18-2, Florida Administrative Code, within twelve (12) months of the effective date of this Lease. The

Management Plan shall be submitted to LESSOR for review, comment and approval. The Leased Premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the Leased Premises without the prior written approval of LESSOR until the Management Plan is approved. The Management Plan shall emphasize the original management concept as approved by LESSOR at the time of acquisition which established the primary public purpose for which the Leased Premises was acquired. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed and revised jointly by LESSEE and LESSOR at least every five (5) years. LESSEE shall not use or alter the Leased Premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this Lease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

10. ANNUAL REPORTS: Annual reports that summarize management activities, accomplishments, and issues affecting the Leased Premises will be submitted by LESSEE to LESSOR pursuant to subsection 259.032(10), Florida Statutes.

11. RIGHT TO INSPECT:

A. LESSOR or its duly authorized agents and employees shall have the right, with reasonable notice, to inspect the Leased Premises and works and operations thereon of LESSEE in any matter pertaining to this Lease.

B. LESSOR or its duly authorized agents and employees shall also have the right, with reasonable notice, to inspect and audit the books and financial records of LESSEE and any of its licensees as they pertain to the management or recreational use of the Leased Premises.

12. INSURANCE REQUIREMENTS: LESSEE is self-insured and shall be financially responsible for any loss due to failure to obtain insurance coverage for any improvements or structures located on the Leased Premises, and LESSEE'S failure to maintain certificate of self-insurance shall constitute a breach of this Lease. Such certificate shall name LESSOR, the State of Florida and LESSEE as co-insureds.

13. LIABILITY: LESSEE shall assist in the investigation of injury or damage claims either for or against LESSOR or the State of Florida pertaining to LESSEE'S respective areas of responsibility under this Lease or arising out of LESSEE'S respective management programs or activities and shall contact LESSOR regarding the legal action deemed appropriate to remedy such damage or claims. LESSEE shall maintain a program of insurance covering its liabilities as prescribed by Section 768.28, Florida Statutes, and shall be responsible for the acts or omissions of its officers, employees, servants, and agents in the event that such acts or omissions result in injury to persons or property. The LESSEE'S liability is further limited by the provisions of Section 373.1395, Florida Statutes. However, nothing in this Lease is intended or is to be construed as a waiver of sovereign immunity as provided to the parties signatory hereto under Section 768.28, Florida Statutes, or as otherwise provided by law.

14. 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 the Leased Premises is prohibited unless prior authorization has been obtained from the Department of State, Division of Historical Resources. The Management Plan 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.

15. EASEMENTS: All easements including, but not limited to, utility easements are expressly prohibited without the prior written approval of LESSOR. Any easement not in effect at the time of this Lease, or not approved in writing by LESSOR, shall be void and without legal effect.

16. 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.

17. SURRENDER OF LEASED PREMISES: Upon termination or expiration of this Lease, LESSEE shall surrender the LESSOR's undivided 50% interest in the Leased Premises to the LESSOR.

18. 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.

19. PUBLIC LANDS ARTHROPOD CONTROL PLAN: LESSEE shall identify and subsequently designate to the respective arthropod control district or districts within one (1) 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.

20. ORIGINALS: This Lease is executed in two (2) originals, each of which shall be considered an original for all purposes.

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

22. ASSIGNMENT: This Lease shall not be assigned in whole or in part without the prior written approval of LESSOR. Any assignment made either in whole or in part without the prior written consent of LESSOR shall be void and without legal effect.

23. 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 the purpose, location and design. Except as identified in the approved Land Management Plan and subject to the terms of the Rayonier Lease, no trees, other than non-native species, shall be removed or major land alterations done without the prior written approval of LESSOR.

Removable equipment and removable improvements placed on the Leased Premises shall remain the property of LESSEE and may be removed by LESSEE upon termination of this Lease.

24. OPERATION AND MAINTENANCE OF LEASED PREMISES AND

IMPROVEMENTS: LESSEE shall maintain the real property contained within the Leased Premises and any improvements located thereon, in a state of good condition, working order and repair including, but not limited to, keeping the Leased Premises free of trash or litter, maintaining all planned improvements as set forth in the Management Plan, meeting all building and safety codes in the location situated, and maintaining all existing roads, fences, ditches, culverts, canals, risers and the like in as good condition as the same may be at the date of this Lease and as required and needed to secure the Leased Premises and provide safe public access. Notwithstanding the foregoing, any removal, closure, etc. of the above improvements shall be acceptable when the proposed activity is consistent with the goals of conservation, protection, and enhancement of the natural and historical resources within the Leased Premises and the approved Management Plan. All costs for operation and maintenance of the Leased Premises and improvements, except those constructed or placed upon the Leased Premises by the LESSOR, shall be at the sole cost and expense of LESSEE.

25. ENTIRE UNDERSTANDING: This Lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of both LESSOR and LESSEE.

26. DEFAULT BY THE LESSEE AND TERMINATION BY THE LESSOR: LESSOR may terminate this Lease if LESSEE proceeds in a manner that violates the terms of this Lease. Lease violations shall include, but not be limited to, the following:

A. LESSEE fails to submit a Management Plan in accordance with the terms of this Lease, or

B. LESSEE fails to proceed in a manner that will implement or complete the actions, tasks or other aspects of the Management Plan for essential site management, or

C. Construction of permanent structures or other improvements by LESSEE not authorized by LESSOR, either directly or indirectly through the approval of the Management Plan, or

D. LESSEE destructs or degrades natural systems, rare or endangered habitats that are targeted for preservation, or

E. LESSEE violates federal, state or local laws, rules, regulations, or ordinances, or

F. LESSEE causes the Leased Premises to be contaminated with hazardous wastes or other pollutants or fails to properly secure the Leased Premises to prevent or impede illegal dumping or degradation of natural habitats, or other unauthorized uses, or

G. LESSEE fails to comply with the other terms and conditions of this Lease.

27. VIOLATIONS: If the LESSOR, in its sole opinion, find that LESSEE has committed a violation of this Lease, LESSOR will notify LESSEE in writing as to the nature of the violation and shall direct LESSEE on how LESSEE is to proceed to remedy, resolve, or rectify the Lease violation. LESSEE will have sixty (60) days from the receipt of the notification in which to perform the following:

A. Proceed in the manner as directed by LESSOR and provide a schedule for the prompt implementation of corrective action, or

B. Advise the LESSOR how the LESSEE will implement its own corrective action, including a schedule for completion, provided it addresses the Lease violation.

If the LESSEE fails to respond to the LESSOR's notification regarding a Lease violation or fails to implement corrective action, the LESSEE will be in default of this Lease and the LESSOR may, at its sole option, terminate this Lease and recover from LESSEE all damages LESSOR may incur by reason of the default, including, but not limited to, the cost of recovering LESSOR'S undivided 50% interest in the Leased Premises, or maintain this Lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

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

29. TERMINATION: LESSEE or LESSOR may terminate this Lease for convenience by giving one (1) year notice in writing of its intent to do so provided, however, LESSEE'S obligations pursuant to paragraph 32.B. shall survive the termination of this Lease.

30. PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES: Fee title to the Leased Premises is jointly owned by LESSOR and LESSEE. LESSEE or LESSOR shall not do or permit anything that purports to create a lien or encumbrance of any nature against the Leased Premises including, but not limited to, mortgages or construction liens against the Leased Premises or against any interest of LESSOR or LESSEE therein.

31. CONDITIONS AND COVENANTS: All of the provisions of this Lease shall be deemed covenants running with the land included in the Leased Premises, and construed to be "conditions" as well as "covenants" as though the words specifically expressing or imparting covenants and conditions were used in each separate provision.

32. 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, subject to the terms of the Rayonier Lease.

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 Leased Premises to the condition existing immediately prior to the occurrence which caused the damage. LESSEE'S obligations set forth in this paragraph shall survive the termination or expiration of this Lease. Nothing herein shall relieve LESSEE of any responsibility or liability prescribed by law for fines, penalties and damages levied by governmental agencies, and the cost of cleaning up any contamination caused directly or indirectly by LESSEE'S activities or facilities. Upon discovery of a release of a hazardous substance or pollutant, or any other violation of local, state or federal law, ordinance, code, rule, regulation, order or decree relating to the generation, storage, production, placement, treatment, release or discharge of any contaminant, LESSEE shall report such violation to all applicable governmental agencies having jurisdiction and to LESSOR, all within the reporting periods of the applicable governmental agencies.

33. TAXES AND ASSESSMENTS: If any ad valorem taxes, intangible property taxes, personal property taxes, mechanic's or materialman's liens, or other taxes or assessments of any kind are assessed or levied lawfully on the Leased Premises based on the LESSEE'S use thereof during the term of this Lease, the LESSOR and LESSEE shall equally pay same within thirty (30) days after receiving written notice thereof. Provided, however, LESSOR and LESSEE shall be equally responsible for payments in-lieu-of taxes required under Sections 373.59 (10) and 259.032 (12), Florida Statutes, or any successor statute. Failure of LESSEE to pay said taxes shall constitute default under this Lease.

34. 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 or conducted on the Leased Premises.

35. SIGNAGE: At all public entrances, public information signage located on the Leased Premises shall inform the public of the cooperative project between LESSEE and LESSOR.

36. FEES AND REVENUES:

A. LESSEE may charge an entrance or user fee to the visitors and users of the Leased Premises after receiving prior written approval from LESSOR. Any such fees charged by LESSEE shall be used for the sole purpose of reimbursing LESSEE of actual budgeted expenses incurred or to be incurred in the operation, maintenance and security of the Leased Premises.

B. LESSEE may explore revenue-producing initiatives that are compatible with the purposes for which the Leased Premises were acquired and related statutory directive after obtaining written approval from LESSOR. Any revenue that is generated by LESSEE under these initiatives shall be applied to management and operation costs of the Leased Premises.

37. ACCESS BY LESSOR: The right is reserved by LESSOR, its officers, employees, agents and assigns to enter upon and travel through and across the Leased Premises which are the subject of this Lease, any time, for inspection, construction, maintenance, or for any purpose necessary or convenient in connection with the management activities of the LESSEE.

38. 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 LESSOR.

39. TIME: Time is expressly declared to be of the essence of this Lease.

40. GOVERNING LAW: This Lease shall be governed by and interpreted according to the laws of the State of Florida.

41. 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.

42. BINDING EFFECT: This Lease will be binding upon and inure to the benefit of the parties hereto, and their successors and assigns.

43. AMENDMENTS: This Lease may be amended in writing by mutual consent of LESSOR and LESSEE.

44. NOTICES: Any and all notices, requests or other communications hereunder shall be deemed to have been duly given if in writing and if transmitted by hand delivery with receipt therefore, or by registered mail posted prior to the expiration date for such notice, return receipt requested, first class postage prepaid, and by Facsimile Transmission as follows:

To LESSEE: ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
P.O. BOX 1429
PALATKA, FL 32178-1429
ATTENTION: DIRECTOR
DIVISION OF LAND MANAGEMENT
FACSIMILE: (904) 329-4848

To LESSOR: DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF STATE LANDS
BUREAU OF PUBLIC LAND ADMINISTRATION
3900 COMMONWEALTH BOULEVARD
MAIL STATION 130
TALLAHASSEE, FLORIDA 32399-3000
FACSIMILE: (850) 245-2761

45. 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, other water body, or of the waters or the air space thereabove.

46. CONDITION OF LEASED PREMISES: This Lease is made by LESSOR without representations or warranties of any kind. LESSOR assumes no liability or obligation to LESSEE with reference to the condition of the Leased Premises or the suitability of the Leased

Premises for any improvements. The LESSOR'S undivided 50% interest in the Leased Premises is hereby 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.

47. NON-WAIVER OF REGULATORY AUTHORITY: Nothing contained in this Lease shall be construed as a waiver of or contract with respect to the regulatory and permitting authority of the LESSOR and LESSEE as it now or hereafter exists under applicable laws, rules, and regulations.

48. ADMINISTRATIVE FEE: LESSEE shall pay the Department of Environmental Protection, Division of State Lands, an annual administrative fee of \$300. The initial annual administrative fee shall be payable upon receipt of invoice 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, the fiscal year shall be the period extending from July 1 through June 30. Each annual payment thereafter shall be due and payable upon receipt of invoice on July 1 of each subsequent year.

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

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

Judy Woodard
Witness

Judy Woodard
Print/Type Witness Name

Fredrica W. Jones
Witness

Fredrica W. Jones
Print/Type Witness Name

By: Gloria C. Nelson
Gloria C. Nelson, Operations and Management
Consultant Manager
Bureau of Public Land Administration
Division of State Lands
Department of Environmental Protection

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 20th day of June 2003, by Gloria C. Nelson, as Operations and Management Consultant Manager, Bureau of Public Land Administration, Division of State Lands, Florida Department of Environmental Protection, acting 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.

Diane C. Rogowski
Notary Public, State of Florida

Print/Type Notary Name Diane C. Rogowski
MY COMMISSION # DD113320 EXPIRES
May 24, 2006
BONDED THROUGH TROY FAIR INSURANCE, INC.

Commission Number: _____

Commission Expires: _____

Approved as to Form
and Legality

By: Sam H. Vasini
DEP Attorney

ST. JOHNS RIVER WATER
MANAGEMENT DISTRICT

By: [Signature] (SEAL)
Kirby B. Green III, Executive Director
By authority of Section 373.083 (5), Florida Statutes, and
DISTRICT Policy Number 90-16, Cooperative Agreements,
revised September 13, 2000

[Signature]
Witness

John W. Williams
Print/Type Witness Name

"LESSEE"

[Signature]
Witness

SHARON G. CARLIN
Print/Type Witness Name

STATE OF FLORIDA
COUNTY OF PUTNAM

David W. Fisk, Deputy Executive Director for
The foregoing instrument was acknowledged before me this 27th day of March, 2003, by
Kirby B. Green III, Executive Director, on behalf of the Governing Board of the St. Johns River Water
Management District. He is personally known to me.



[Signature]
Notary Public, State of Florida

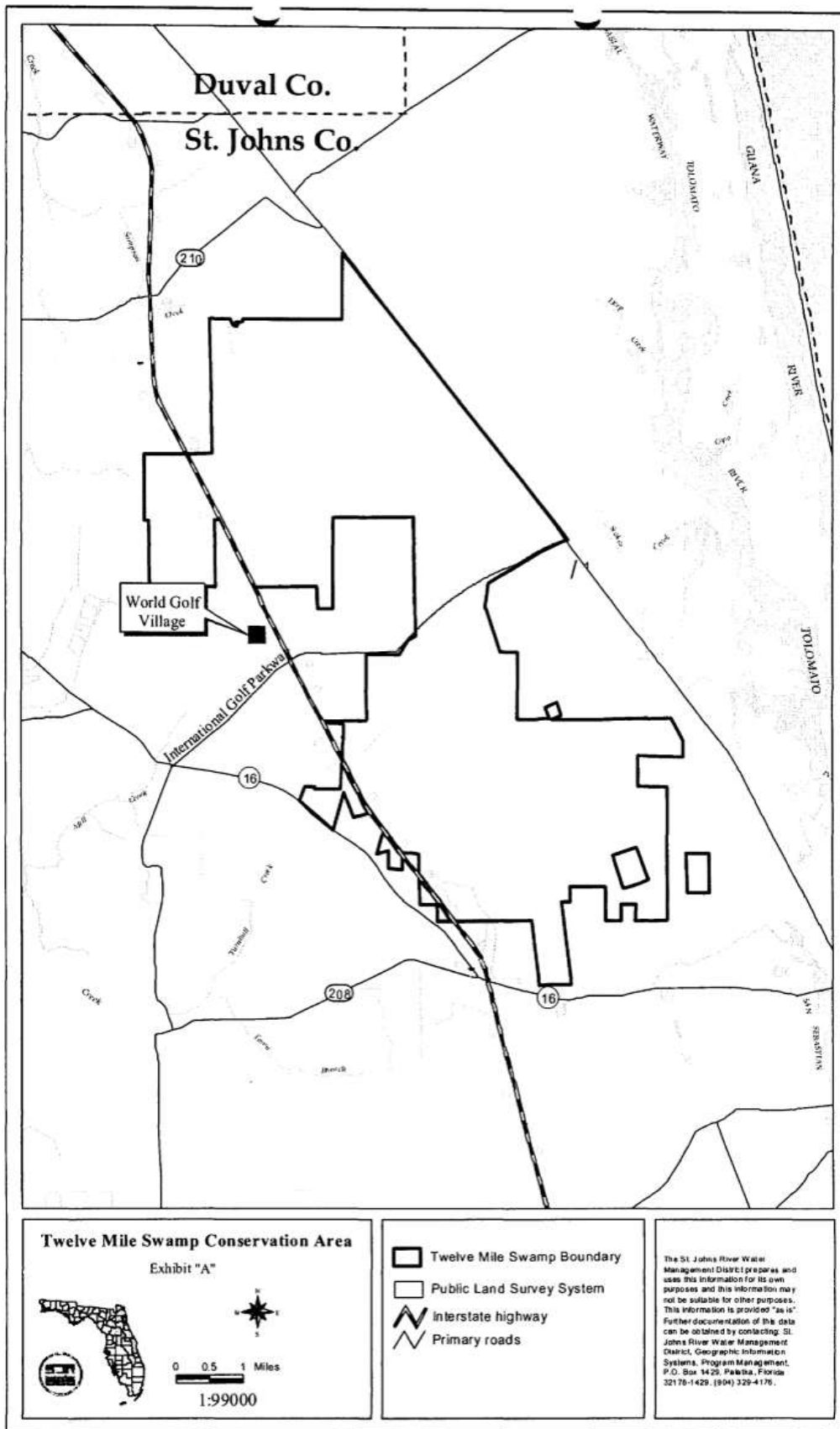
SHARON G. CARLIN
Print/Type Notary Name

Commission Number: CC 961051

Commission Expires: 10/29/04

Approved as to Form
and Legality

By: [Signature]
John W. Williams, Esq.
Deputy General Counsel
Office of General Counsel



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Public Records of
St. Johns County, FL
Clerk# 01-007325
O.R. 1568 PG 482
09:36AM 02/21/2001
REC \$121.00 SUR \$15.50

THIS DOCUMENT PREPARED
BY AND RETURN TO:

M. LYNN PAPPAS, ESQUIRE
PAPPAS METCALF JENKS
MILLER & REINSCH, P.A.
200 WEST FORSYTH STREET
SUITE 1400
JACKSONVILLE, FL 32202

TRUSTEES DEED

36.50
②
THIS TRUSTEES DEED made as of the 19th day of February, 2001, by ROBERT H. PAUL, III, as Trustee, CHERYL S. CUMMER, as Trustee, and HOWARD W. HARRISON, JR., as Trustee, whose addresses are P. O. Box 17499, Jacksonville, Florida 32245, 21 Fairfield St., Unit #4, Boston, MA 02116, and P.O. Box 10, Sedgewick, ME 04676, respectively, hereinafter called "Grantor" to the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, a public body existing under Chapter 373 of the Florida Statutes, as to an undivided fifty percent (50%) interest, whose address is P. O. Box 1429, Palatka, Florida 32178-1429, and BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA, as to an undivided fifty percent (50%) interest, whose address is c/o Florida Department of Environmental Protection, Division of State Lands, 3900 Commonwealth Boulevard, Mail Station 115, Tallahassee, Florida 32399, hereinafter called "Grantee".

WITNESSETH:

That Grantor, for and in consideration of the sum of Ten and no/100 Dollars (\$10.00) and other valuable consideration, the receipt whereof is hereby acknowledged, by these presents does hereby grant, bargain, sell, alien, remise, release, convey and confirm unto Grantee, its legal representatives and assigns, all that certain real property situate in St. Johns County, Florida, as described on Exhibit A attached hereto.

TOGETHER with all the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining.

TO HAVE AND TO HOLD, the same in fee simple forever.

This conveyance is subject to those matters set forth in Exhibit B attached hereto and none other. The Property is not the homestead of Grantor.

00061062.MPD.

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And Grantor hereby covenants with Grantee that, except as set forth above, at the time of the delivery of this deed, the property was free from all encumbrances made by Grantor; and that Grantor will warrant and defend the same against the lawful claims of all persons claiming by, through or under Grantor, but against none other.

And Grantor also hereby covenants with Grantee, its successors and assigns, to apply for an amendment to the future land use map of the St. Johns County Comprehensive Plan to modify the land use of the property that Grantor, as of the date of the execution of this deed, owns within 750 feet of the centerline of Durbin Creek (the "Durbin Creek Corridor") to Conservation or such other comparable designation under the St. Johns County Comprehensive Plan. This application shall be filed with St. Johns County within sixty (60) days of the expiration of that certain timber cutting lease originally by and between Cummer Lime and manufacturing Company and Owens-Illinois Glass Company dated December 28, 1959 (the "Lease"), which is to expire on December 31, 2025, or as sooner agreed to by Grantor and lessee under the Lease (the "Lessee"). Grantor shall use good faith, reasonable efforts to secure approval of the comprehensive plan amendment. Should the Lease be terminated due to breach by Grantor or Lessee, then the application for amendment shall be filed (a) within 60 days of Lessee's written consent to file the application, (b) within sixty (60) days of a final judgment or settlement of the dispute whereby the Lease is recognized as terminated, or (c) by March 1, 2026, whichever comes first.

IN WITNESS WHEREOF, this deed has been executed as of the date first above written.

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Signed, Sealed and Delivered
in the presence of:

Deanna Ordway
Print Name: Deanna Ordway

Robert H. Paul, III
Robert H. Paul, III, as Trustee

Andreas Andrian
Print Name: Andreas Andrian

STATE OF Florida
COUNTY OF Duval

The foregoing was acknowledged before me this 13th day of February, 2001, by
Robert H. Paul, III, as Trustee, who ☒ is personally known to me, or ☐ produced
as identification.

Janice K. Potts
Notary Public

Printed Name



00061441.WPD.

DR1568PG0485

Pauline C. Garron
Name Printed: Pauline C. Garron

By: Cheryl S. Cummer
Cheryl S. Cummer, as Trustee

Gina Regan
Name Printed: Gina Regan

STATE OF Massachusetts
COUNTY OF Suffolk

The foregoing instrument was acknowledged before me this 13th day of February, 2001, by Cheryl S. Cummer, as Trustee.

Heidi Shabaz Thomas
(Print Name Heidi Shabaz Thomas)
NOTARY PUBLIC
State of Massachusetts at Large
Commission # _____
My Commission Expires HEIDI SHABAZ THOMAS, NOTARY
Personally known ☒ MY COMMISSION EXPIRES DEC. 8,
or Produced I.D. _____
[check one of the above]
Type of Identification Produced _____
HEIDI SHABAZ-THOMAS, NOTARY PUBLIC
MY COMMISSION EXPIRES DEC. 8, 2002

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4

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Frances J. Parks
 Name Printed: FRANCES J. PARKS

By: Howard W. Harrison, Jr.
 Howard W. Harrison, Jr., As Trustee

Ruth A. Clark
 Name Printed: Ruth A. Clark

STATE OF PA
 COUNTY OF PHILA

The foregoing instrument was acknowledged before me this 13th day of February, 2001, by
 Howard W. Harrison, Jr., as Trustee.

Tracey M. Kelly
 (Print Name Tracey M. Kelly)
 NOTARY PUBLIC
 State of PA at Large
 Commission # _____
 My Commission Expires: 7/17/2004
 Personally known _____
 or Produced I.D. ✓
 [check one of the above]
 Type of Identification Produced
MAINE DRIVER'S LICENSE

NOTARIAL SEAL
 TRACEY M. KELLY, Notary Public
 City of Philadelphia, Phila. County
 My Commission Expires July 17, 2004

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EXHIBIT A

0R1568PG0487

PARCEL "A"

ALL OF SECTIONS 22, 23, 27, 35, 36, AND SECTION 38 OF THE ANLELM GAY GRANT, SECTION 39 OF THE JOHN GIONOPLY GRANT, SECTION 42 OF THE PHILIP R. YONGE GRANT, SECTION 43 OF THE ZEPH. KINGSLEY GRANT, SECTION 44 OF THE GEORGE GIONOPLY GRANT, SECTION 45 OF THE EMAN. GIONOPLY GRANT, TOGETHER WITH A PORTION OF SECTIONS 13, 24, 33, 34 AND SECTION 37 OF THE ANLELM GAY GRANT, ALL LYING WITHIN TOWNSHIP 5 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA; TOGETHER WITH PORTIONS OF SECTIONS 19, 29, 30, 31, 32, SECTION 41 OF THE REUBEN CHARLES GRANT, SECTION 42 OF THE ANLELM GAY GRANT, AND SECTION 43 OF THE JOHN GIONOPLY GRANT, ALL LYING IN TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; TOGETHER WITH A PORTION OF SECTIONS 2, 3, AND 11, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA; TOGETHER WITH ALL OF SECTION 6, AND SECTION 46 OF THE J. GIANOPLY OR Z. KINGSLEY GRANT, SECTION 58 OF THE JNO. GIANOPLY GRANT, SECTION 59 OF THE GIANOPLY OR BUSHNELL OR KINGSLEY GRANT, SECTION 60 OF THE GIANOPLY OR BUSHNELL OR KINGSLEY GRANT, SECTION 64 OF THE KINGSLEY, BUSHNELL OR INGERSOLL GRANT, SECTION 67 OF THE KINGSLEY OR INGERSOLL GRANT, SECTION 77 OF THE L. CAPO OR KINGSLEY GRANT, AND SECTION 100 OF THE Z. KINGSLEY GRANT, TOGETHER WITH A PORTION OF SECTIONS 4 AND 5, AND SECTION 61 OF THE BUSHNELL'S HEIRS OR KINGSLEY GRANT, SECTION 62 OF THE HEIRS OF E. BUSHNELL GRANT, SECTION 63 OF THE Z. KINGSLEY GRANT, SECTION 65 OF THE KINGSLEY, BUSHNELL OR SCHOFIELD GRANT, AND SECTION 66 OF THE M. SCHOFIELD OR KINGSLEY GRANT, ALL LYING WITHIN TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, PORTIONS OF WHICH BEING BOUNDED ON THE EAST BY A FLORIDA EAST COAST RAILROAD RIGHT-OF-WAY, BOUNDED ON THE SOUTH BY INTERNATIONAL GOLF PARKWAY (A.K.A. NINE MILE ROAD), AND BOUNDED ON THE WEST BY INTERSTATE HIGHWAY NO. 95 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE NORTH LINE OF SAID SECTION 33, TOWNSHIP 5 SOUTH, RANGE 28 EAST, WITH THE EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF SAID INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH $88^{\circ}53'30''$ EAST, ALONG SAID NORTH LINE OF SECTION 33, 1873.76 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 27, TOWNSHIP 5 SOUTH, RANGE 28 EAST; THENCE NORTH $1^{\circ}05'51''$ WEST, ALONG THE WEST LINE OF SAID SECTION 27, 5228.35 FEET TO THE NORTHWEST CORNER OF SAID SECTION 27; THENCE NORTH $1^{\circ}01'45''$ WEST, ALONG THE WEST LINE OF SAID SECTION 22, TOWNSHIP 5 SOUTH, AND RANGE 28 EAST, 5393.55 FEET TO THE NORTHWEST CORNER OF SAID SECTION 22; THENCE NORTH $89^{\circ}33'45''$ EAST, ALONG SAID NORTH LINE OF SAID SECTIONS 22 AND 23, TOWNSHIP 5 SOUTH, RANGE 28 EAST, 10731.55 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 13, TOWNSHIP 5 SOUTH, RANGE 28 EAST; THENCE NORTH $1^{\circ}04'07''$ WEST, ALONG THE WEST LINE

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OF SAID SECTION 13, 5180.31 FEET TO ITS INTERSECTION WITH THE WESTERLY RIGHT-OF-WAY LINE OF A FLORIDA EAST COAST RAILROAD RIGHT-OF-WAY; THENCE SOUTH 41°02'27" EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 2855.65 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE SOUTHWESTERLY HAVING A RADIUS OF 11409.16 FEET; THROUGH A CENTRAL ANGLE OF 03°10'24", AN ARC DISTANCE OF 631.87 FEET, TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 39°27'15" EAST, 631.79 FEET; THENCE SOUTH 37°52'03" EAST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 639.17 FEET; THENCE SOUTH 52°07'57" WEST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE 100.00 FEET; THENCE SOUTH 37°52'03" EAST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 200.00 FEET; THENCE NORTH 52°07'57" EAST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 100.00 FEET; THENCE SOUTH 37°52'03" EAST, CONTINUING ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 7940.60 FEET, TO ITS INTERSECTION WITH THE WEST LINE OF A FLORIDA EAST COAST RAILROAD PARCEL, AS RECORDED IN DEED BOOK 58, PAGE 474, OF SAID COUNTY; THENCE SOUTH 15°24'36" EAST, DEPARTING SAID WESTERLY RIGHT-OF-WAY LINE, AND ALONG THE WEST LINE OF SAID RAILROAD PARCEL, 1027.11 FEET, TO THE NORTHEAST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 550, PAGE 582 OF THE PUBLIC RECORDS OF SAID COUNTY; THENCE SOUTH 74°35'24" WEST, ALONG THE NORTH LINE OF LAST SAID LANDS, 240.00 FEET; THENCE SOUTH 15°24'36" EAST, ALONG THE WEST LINE OF SAID LANDS, 181.50 FEET; THENCE NORTH 74°35'24" EAST, ALONG THE SOUTH LINE OF SAID LANDS 240.00 FEET TO THE WEST LINE OF AFORESAID FLORIDA EAST COAST RAILROAD PARCEL; THENCE SOUTH 15°24'36" EAST, ALONG SAID WEST LINE, 108.38 FEET TO THE SOUTHERLY LINE THEREOF; THENCE NORTH 52°08'56" EAST, ALONG SAID SOUTHERLY LINE, 503.09 FEET, TO A POINT LYING ON AFORESAID WESTERLY RIGHT-OF-WAY LINE OF FLORIDA EAST COAST RAILROAD RIGHT-OF-WAY; THENCE SOUTH 37°52'03" EAST, ALONG SAID WESTERLY RIGHT-OF-WAY LINE, 15318.92 FEET TO ITS INTERSECTION WITH THE NORTHERLY RIGHT-OF-WAY LINE OF INTERNATIONAL GOLF PARKWAY (A.K.A. NINE MILE ROAD), A 66 FOOT MAINTAINED RIGHT-OF-WAY AS NOW ESTABLISHED; THENCE SOUTH 66°32'17" WEST, DEPARTING SAID WESTERLY RIGHT-OF-WAY LINE OF FLORIDA EAST COAST RAILROAD AND ALONG SAID NORTHERLY MAINTAINED RIGHT-OF-WAY LINE OF SAID INTERNATIONAL GOLF PARKWAY, 1800.25 FEET, TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID MAINTAINED RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE SOUTHERLY, AND HAVING A RADIUS OF 1453.05 FEET, THROUGH A CENTRAL ANGLE OF 07°05'45", AN ARC DISTANCE OF 179.95 FEET TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 62°59'25" WEST, 179.84 FEET; THENCE SOUTH 59°26'32" WEST, CONTINUING ALONG SAID MAINTAINED NORTHERLY RIGHT-OF-WAY LINE, 6370.79 FEET, TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID MAINTAINED RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE SOUTHEASTERLY, AND HAVING A

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RADIUS OF 2166.15 FEET, THROUGH A CENTRAL ANGLE OF 05°17'15", AN ARC DISTANCE OF 199.91 FEET TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 56°47'54" WEST, 199.83 FEET; THENCE SOUTH 54°09'16" WEST, CONTINUING ALONG SAID MAINTAINED NORTHERLY RIGHT-OF-WAY LINE, 2848.30 FEET; THENCE SOUTH 53°53'42" WEST, CONTINUING ALONG SAID MAINTAINED NORTHERLY RIGHT-OF-WAY LINE, 1588.34 FEET; THENCE SOUTH 54°09'58" WEST, CONTINUING ALONG SAID NORTHERLY MAINTAINED RIGHT-OF-WAY LINE, 1054.86 FEET, TO ITS INTERSECTION WITH THE EAST RANGE LINE OF TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE NORTH 1°37'40" WEST, ALONG SAID RANGE LINE, 3800.99 FEET; THENCE NORTH 1°39'23" WEST, CONTINUING ALONG SAID RANGE LINE, 5397.43 FEET, TO THE NORTHEAST CORNER OF SAID TOWNSHIP; THENCE SOUTH 88°37'55" WEST, ALONG THE NORTH LINE OF SAID TOWNSHIP, 5144.17 FEET, TO THE NORTHWEST CORNER OF SECTION 1, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH 89°07'25" WEST, CONTINUING ALONG SAID NORTH LINE OF SAID TOWNSHIP, 1317.83 FEET, TO THE NORTHWESTERLY CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 729, PAGE 753 OF THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY; THENCE SOUTH 1°07'35" EAST, ALONG THE WEST LINE OF SAID LANDS, 5333.10 FEET, TO ITS INTERSECTION WITH THE SOUTH LINE OF SECTION 2, TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH 0°42'21" EAST, ALONG THE WEST LINE OF THE NORTHEAST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 11, TOWNSHIP 6 SOUTH, RANGE 28 EAST, 1320.72 FEET, TO THE SOUTHEAST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 11, TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH 88°34'18" WEST, ALONG THE SOUTH LINE OF SAID NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 11, 1285.97 FEET TO THE SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF THE NORTHEAST ONE-QUARTER OF SAID SECTION 11, SAID POINT LYING ON THE EAST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 837, PAGES 807 AND 820; THENCE NORTH 0°08'25" WEST, ALONG SAID EAST LINE, 1431.70 FEET, TO THE NORTHEAST CORNER OF SAID LANDS; THENCE SOUTH 89°22'18" WEST, ALONG THE NORTH LINE OF SAID LANDS, 4946.84 FEET TO ITS INTERSECTION WITH AFOREMENTIONED EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95; THENCE NORTH 27°29'18" WEST, ALONG SAID EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE 11648.16 FEET, TO THE POINT OF BEGINNING.

LESS AND EXCEPT THE FOLLOWING PARCELS:

LOTS 6 THRU 29, BLOCK 37, ACCORDING TO WOODLAND HEIGHTS, MAP BOOK 3, PAGE 78, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE RUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING THE LANDS OF THE ROBERT J. STALLS ESTATE (PARCEL NO. 071030-0000 AS SHOWN ON ST. JOHNS COUNTY ASSESSMENT MAP, SHEET NO. 4C/30NX), BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT

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OF BEGINNING COMMENCE AT THE SOUTHEAST CORNER OF LOT 17, SAME BEING THE SOUTHEAST CORNER OF SAID BLOCK 37, THENCE SOUTH 74°35'05" WEST, ALONG THE SOUTH LINE OF LOTS 17 AND 18, 200.00 FEET TO THE SOUTHWEST CORNER OF LOT 18; THENCE NORTH 15°24'55" WEST, ALONG THE WEST LINE OF LOTS 18 THRU 29, 396.00 FEET, TO THE NORTHWEST CORNER OF LOT 29; THENCE NORTH 74°35'05" EAST, ALONG THE NORTH LINE OF LOTS 29 AND 6, 200.00 FEET TO THE NORTHEAST CORNER OF LOT 6; THENCE SOUTH 15°24'55" EAST, ALONG THE EAST LINE OF LOTS 6 THRU 17, 396.00 FEET TO THE POINT OF BEGINNING.

NOTE: NO COVERING DEED OF RECORD FOUND FOR THIS PARCEL.

LANDS DESCRIBED IN OFFICIAL RECORDS 831, PAGE 1064, ST. JOHNS COUNTY, FLORIDA, BEING A PART OF THE RUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT THE SOUTHWEST CORNER OF LANDS DESCRIBED IN OFFICIAL RECORDS 550, PAGE 582, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 15°24'36" WEST, ALONG THE WEST LINE OF SAID LANDS, 46.82 FEET TO POINT LYING ON A WESTERLY LINE OF A PERPETUAL EASEMENT AS RECORDED IN OFFICIAL RECORDS 178, PAGE 83 OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA; THENCE SOUTH 18°55'28" WEST, ALONG SAID WESTERLY EASEMENT LINE, 309.79 FEET TO THE POINT OF BEGINNING, SAME BEING THE EASTERLY CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS 831, PAGE 1064, ST. JOHNS COUNTY, FLORIDA; THENCE CONTINUE SOUTH 18°55'28" WEST, 154.18 FEET; THENCE NORTH 70°24'51" WEST, 154.19 FEET; THENCE NORTH 18°55'28" EAST, 154.18 FEET; THENCE SOUTH 70°24'51" EAST, 154.19 FEET TO THE POINT OF BEGINNING.

LOTS 1 AND 2, BLOCK 35 ACCORDING TO WOODLAND HEIGHTS, MAP BOOK 3, PAGE 67, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE RUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING THE LANDS DESCRIBED IN OFFICIAL RECORDS 1318, PAGE 1575; ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING, COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 1, SAME BEING THE NORTHEAST CORNER OF SAID BLOCK 35; THENCE SOUTH 15°24'55" EAST, ALONG THE EAST LINE OF LOT 1, 90.00 FEET TO THE SOUTHEAST CORNER OF LOT 1; THENCE SOUTH 74°35'05" WEST, ALONG THE SOUTH LINE OF LOTS 1 & 2, 66.67 FEET TO THE SOUTHWEST CORNER OF LOT 2; THENCE NORTH 15°24'55" WEST, ALONG THE WEST LINE OF LOT 2, 90.00 FEET TO THE NORTHWEST CORNER OF LOT 2; THENCE NORTH 74°35'05" EAST, ALONG THE

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NORTH LINE OF LOTS 1 & 2, 66.67 FEET, TO THE POINT OF BEGINNING.

LOTS 1,2,3,32 AND 33, BLOCK 37, ACCORDING TO WOODLAND HEIGHTS, MAP BOOK 3, PAGE 78, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE RUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING THE LANDS OF THE FLORIDA MUTUAL LAND CORP. (PARCEL NO. 071010-0000 AS SHOWN ON ST. JOHNS COUNTY ASSESSMENT MAP, SHEET NO. 4C/30NX), BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE NORTHEAST CORNER OF SAID LOT 1, SAME BEING THE NORTHEAST CORNER OF SAID BLOCK 37, THENCE SOUTH $15^{\circ}24'55''$ EAST, ALONG THE EAST LINE OF SAID LOTS 1,2, AND 3, 128.40 FEET TO THE SOUTHEAST CORNER OF SAID LOT 3; THENCE SOUTH $74^{\circ}35'05''$ WEST, ALONG THE SOUTH LINE OF LOTS 3 AND 32, 200.00 FEET TO THE SOUTHWEST CORNER OF LOT 32; THENCE NORTH $15^{\circ}24'55''$ WEST, ALONG THE WEST LINE OF LOT 32, 33.00 FEET, TO THE WEST CORNER OF LOT 33; THENCE NORTH $49^{\circ}05'05''$ EAST, ALONG THE NORTH LINE OF LOTS 33 AND 1, 221.59 FEET TO THE POINT OF BEGINNING.

NOTE: NO COVERING DEED OF RECORD FOUND FOR THIS PARCEL.

LANDS DESCRIBED IN OFFICIAL RECORDS 868, PAGE 1139; LANDS DESCRIBED IN OFFICIAL RECORDS 960, PAGE 620; LANDS DESCRIBED IN DEED BOOK 170, PAGE 555; LANDS DESCRIBED IN OFFICIAL RECORDS 59, PAGE 534; LANDS DESCRIBED IN OFFICIAL RECORDS 60, PAGE 439, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE R. CHARLES GRANT, SECTION 41, PART OF THE A. GAY GRANT, SECTION 42 AND PART OF THE J. GIONOPLE GRANT, SECTION 43, ALL IN TOWNSHIP 5 SOUTH, RANGE 29 EAST AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE NORTHEAST CORNER OF SAID SECTION 43, THENCE SOUTH $15^{\circ}24'55''$ EAST, ALONG THE EAST LINE OF SAID SECTION 43, 264.00 FEET; THENCE NORTH $73^{\circ}27'29''$ WEST, ALONG A LINE PARALLEL TO THE NORTH LINE OF SAID SECTION 43, 792.00 FEET; THENCE NORTH $15^{\circ}24'55''$ WEST, ALONG A LINE PARALLEL TO THE EAST LINE OF SAID SECTION 42 AND SECTION 43, 858.00 FEET; THENCE SOUTH $73^{\circ}27'29''$ EAST; ALONG A LINE PARALLEL TO SAID NORTH LINE OF SAID SECTION 43, 792.00 FEET TO A POINT LYING ON THE WEST LINE OF SAID SECTION 41, SAME BEING THE WEST LINE OF WOODLAND HEIGHTS, AS RECORDED IN MAP BOOK 3, PAGE 67, OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $15^{\circ}24'55''$ WEST, ALONG SAID WEST LINE OF SECTION 41, 695.34 FEET TO THE CENTERLINE OF PHILADELPHIA STREET, AS SHOWN ON JUST MENTIONED PLAT OF WOODLAND HEIGHTS; THENCE ALONG SAID CENTERLINE, NORTH $74^{\circ}36'50''$ EAST, 219.51 FEET TO ITS INTERSECTION WITH THE CENTERLINE OF FLORIDA AVENUE AS SHOWN ON SAID PLAT; THENCE SOUTH $15^{\circ}26'06''$ EAST, ALONG SAID CENTERLINE OF

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FLORIDA AVENUE, 1426.47 FEET TO THE SOUTH LINE OF SAID WOODLAND HEIGHTS, SAME BEING THE SOUTH LINE OF SAID SECTION 41; THENCE NORTH 73°27'29" WEST, ALONG SAID SOUTH LINE, 259.30 FEET TO THE POINT OF BEGINNING.

LOTS 23 THRU 27, BLOCK 60, AND ONE-HALF OF THE VACATED STREETS LYING SOUTH AND EAST, ACCORDING TO WOODLAND HEIGHTS, MAP BOOK 3, PAGE 67, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE RUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING THE LANDS OF THE G.R. CHASSEVENT ESTATE, (PARCEL NO. 071330-0000 AS SHOWN ON ST. JOHNS COUNTY ASSESSMENT MAP, SHEET NO. 4C/30SX), BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE CENTERLINE INTERSECTION OF BALTIMORE AVENUE AND PHILADELPHIA STREET AS SHOWN ON SAID PLAT OF WOODLAND HEIGHTS, MAP BOOK 3, PAGE 67, THENCE SOUTH 74°35'05" WEST, ALONG SAID CENTERLINE OF PHILADELPHIA STREET, 120.00 FEET TO ITS INTERSECTION WITH THE SOUTHERLY PROLONGATION OF THE WEST LINE OF SAID LOT 27; THENCE NORTH 15°24'55" WEST, ALONG SAID SOUTHERLY PROLONGATION, AND THE WESTERLY LINES OF SAID LOTS 23 THRU 27, 170.00 FEET TO THE NORTHWEST CORNER OF SAID LOT 23; THENCE NORTH 74°35'05" EAST, ALONG THE NORTHERLY LINE OF LOT 23 AND ITS EASTERLY PROLONGATION, 120.00 FEET TO THE CENTERLINE OF AFOREMENTIONED BALTIMORE AVENUE; THENCE SOUTH 15°24'55" EAST, ALONG SAID CENTERLINE OF BALTIMORE AVENUE, 170.00 FEET TO THE POINT OF BEGINNING.

NOTE: NO COVERING DEED OF RECORD FOUND FOR THIS PARCEL.

A PARCEL OF LAND AS SHOWN AS 5, (AS SHOWN ON ST. JOHNS COUNTY ASSESSMENT MAP, SHEET NO. 4C/30SX) LYING IN BLOCK 36, ACCORDING TO WOODLAND HEIGHTS, MAP BOOK 3, PAGE 67, ST. JOHNS COUNTY, FLORIDA, BEING PART OF THE REUBEN CHARLES GRANT, SECTION 41, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, APPEARING TO BE PARCEL "E", BEING LOTS 30, 31 AND 32, OF AFOREMENTIONED BLOCK 36, AS SHOWN ON SURVEY BY ROBERT M. ANGAS AND ASSOCIATES, DATED MARCH 18, 1963, FILE NO. C 174-5, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE SOUTHEAST CORNER OF SAID LOT 30, THENCE SOUTH 74°35'05" WEST, ALONG THE SOUTH LINE OF LOT 30, AND ITS WESTERLY PROLONGATION THEREOF, 120.00 FEET TO THE CENTERLINE OF BALTIMORE AVENUE (BALTIMORE AVENUE PER ANGAS SURVEY); THENCE NORTH 15°24'55" WEST, ALONG SAID CENTERLINE OF BALTIMORE AVENUE, 90.00 FEET TO THE WESTERLY PROLONGATION OF THE NORTH LINE OF LOT 32; THENCE NORTH 74°35'05" EAST, ALONG SAID WESTERLY PROLONGATION OF THE NORTH LINE OF

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LOT 32, AND THE NORTH LINE OF LOT 32, 120.00 FEET TO THE NORTHEAST CORNER OF LOT 32; THENCE SOUTH 15°24'55" EAST, ALONG THE EAST LINE OF LOTS 32, 31 AND 30, 90.00 FEET TO THE POINT OF BEGINNING.

NOTE: NO COVERING DEED OF RECORD FOUND FOR THIS PARCEL.

A PARCEL OF LAND LYING IN SECTION 41, R. CHARLES GRANT, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING SHOWN AS THE JOHN A. STALLS PARCEL AS SHOWN ON MAP BY H.A. DURDEN & ASSOCIATES, DATED: NOVEMBER 19, 1968, FILE No. E-6, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE NORTHWEST CORNER SAID JOHN A. STALLS PARCEL, SAID NORTHWEST CORNER LYING ON AN EASTERLY LINE OF A 60 FOOT WIDE PERPETUAL EASEMENT AS RECORDED IN OFFICIAL RECORDS 178, PAGE 83 OF ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 72°37'36" EAST, DEPARTING SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE AND ALONG THE NORTH LINE OF JUST MENTIONED STALLS PARCEL, 199.94 FEET TO THE NORTHEAST CORNER OF SAID STALLS PARCEL; THENCE SOUTH 17°22'24" EAST, ALONG THE EAST LINE OF SAID STALLS PARCEL, 468.20 FEET TO THE SOUTHEAST CORNER OF SAID STALLS PARCEL, SAID POINT LYING ON A NORTH LINE OF AFOREMENTIONED 60 FOOT WIDE PERPETUAL EASEMENT; THENCE NORTH 84°22'11" WEST, ALONG THE JUST MENTIONED 60 FOOT WIDE PERPETUAL EASEMENT LINE, SAME BEING THE SOUTH LINE OF SAID STALLS PARCEL, 217.21 FEET TO THE SOUTHWEST CORNER OF SAID STALLS PARCEL; THENCE NORTH 17°22'24" WEST, ALONG THE AFOREMENTIONED EASTERLY LINE OF A 60 FOOT WIDE PERPETUAL EASEMENT, SAME BEING THE WEST LINE OF SAID STALLS PARCEL, 383.31 FEET TO THE POINT OF BEGINNING.

A PARCEL OF LAND LYING IN SECTION 41, R. CHARLES GRANT, TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE NORTHEAST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 550, PAGE 582 OF THE PUBLIC RECORDS OF SAID COUNTY; THENCE SOUTH 74°35'24" WEST, ALONG THE NORTH LINE OF LAST SAID LANDS, 240.00 FEET TO THE NORTHWEST CORNER OF SAID LANDS; THENCE SOUTH 15°24'36" EAST, ALONG THE WEST LINE OF SAID LANDS, 181.50 FEET TO THE SOUTHWEST CORNER OF SAID LANDS; THENCE NORTH 74°35'24" EAST, ALONG THE SOUTH LINE OF SAID LANDS 89.13 FEET; THENCE SOUTH 18°55'28" WEST, DEPARTING SAID SOUTH LINE OF SAID LANDS, AND ALONG A LINE PARALLEL TO, AND 100 FEET EASTERLY (AS MEASURED AT RIGHT ANGLES) TO A WESTERLY LINE OF A 60 FOOT WIDE PERPETUAL EASEMENT AS RECORDED IN OFFICIAL

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RECORDS 178, PAGE 83 OF SAID ST. JOHNS COUNTY, FLORIDA, 234.98 FEET; THENCE NORTH 71°04'32" WEST, 100.00 FEET TO A POINT LYING ON SAID WESTERLY LINE OF SAID 60 FOOT WIDE PERPETUAL EASEMENT; THENCE SOUTH 18°55'28" WEST, ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 240.60 FEET TO THE SOUTHERLY CORNER OF LANDS DESCRIBED IN OFFICIAL RECORDS 831, PAGE 1064, ST. JOHNS COUNTY, FLORIDA, THE SOUTHERLY 154.18 FEET OF JUST MENTIONED LINE BEING THE SOUTHEAST LINE OF JUST MENTIONED LANDS; THENCE SOUTH 70°24'51" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 60.00 FEET; THENCE NORTH 18°55'28" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 28.74 FEET; THENCE SOUTH 70°43'34" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 110.95 FEET; THENCE SOUTH 15°24'55" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 49.23 FEET TO THE NORTHWEST CORNER OF LOT 2, BLOCK 35, WOODLAND HEIGHTS, AS RECORDED IN MAP BOOK 3, PAGE 67, ST. JOHNS COUNTY, FLORIDA, SAME BEING THE NORTHWEST CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 1318, PAGE 1575; ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 74°35'05" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, SAME BEING THE NORTH LINE OF SAID DEED, 66.67 FEET TO THE NORTHEAST CORNER OF SAID LANDS, SAME BEING THE NORTHEAST CORNER OF LOT 1, BLOCK 35, SAID WOODLAND HEIGHTS; THENCE SOUTH 69°54'17" EAST, CONTINUING ALONG SAID 60 FOOT WIDE PERPETUAL EASEMENT LINE, 167.37 FEET; THENCE SOUTH 39°20'27" WEST, DEPARTING A SOUTHERLY LINE OF SAID 60 FOOT WIDE PERPETUAL EASEMENT, 266.85 FEET; THENCE NORTH 69°47'48" WEST, 233.12 FEET; THENCE NORTH 04°03'00" WEST, 215.30 FEET; THENCE NORTH 69°53'40" WEST, 385.18 FEET; THENCE NORTH 18°55'28" EAST, 192.39 FEET; THENCE NORTH 32°31'54" EAST, 508.20 FEET; THENCE NORTH 41°19'14" EAST, 400.53 FEET TO A POINT LYING ON THE WEST LINE OF A FLORIDA EAST COAST RAILROAD PARCEL, AS RECORDED IN DEED BOOK 58, PAGE 474, OF SAID ST. JOHNS COUNTY FLORIDA; THENCE SOUTH 15°24'36" EAST, ALONG JUST MENTIONED WEST LINE, 397.56 FEET TO THE POINT OF BEGINNING.

PART OF SECTION 31, PART OF THE R. CHARLES GRANT, SECTION 41, PART OF THE A. GAY GRANT, SECTION 42 AND PART OF THE J. GIONOPLE GRANT, SECTION 43, ALL IN TOWNSHIP 5 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: FOR A POINT OF BEGINNING COMMENCE AT THE NORTHEAST CORNER OF SAID SECTION 43, THENCE SOUTH 73°27'29" EAST, ALONG THE SOUTH LINE OF SAID SECTION 41, 259.30 FEET, TO THE CENTERLINE OF FLORIDA AVENUE AS SHOWN ON THE PLAT OF WOODLAND HEIGHTS, AS RECORDED IN MAP BOOK 3, PAGE 67, OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 15°26'06" WEST, ALONG SAID CENTERLINE OF FLORIDA AVENUE, 1084.00 FEET TO A SOUTHERLY

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LINE OF A 60 FOOT WIDE PERPETUAL EASEMENT AS RECORDED IN OFFICIAL RECORDS 178, PAGE 83 OF ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 21°00'56" EAST, ALONG SAID SOUTHERLY EASEMENT LINE, 100.99 FEET; THENCE SOUTH 15°26'06" EAST, DEPARTING SAID EASEMENT LINE, 412.76 FEET; THENCE SOUTH 89°39'29" EAST, 68.84 FEET; THENCE SOUTH 10°36'13" EAST, 226.93 FEET; THENCE SOUTH 51°07'05" WEST, 51.37 FEET; THENCE SOUTH 15°26'06" EAST, 595.38 FEET; THENCE SOUTH 54°51'26" WEST, 233.76 FEET; THENCE SOUTH 74°53'17" WEST, 167.48 FEET; THENCE NORTH 15°06'43" WEST, 40.00 FEET; THENCE SOUTH 74°53'17" WEST, 705.93 FEET; THENCE NORTH 15°41'52" WEST, 893.51 FEET; THENCE NORTH 74°54'10" EAST, 145.63 FEET TO THE WEST LINE OF LANDS DESCRIBED IN OFFICIAL RECORDS 60, PAGE 439, OF THE SAID PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA; THENCE SOUTH 15°24'55" EAST, ALONG SAID WEST LINE, 457.80 FEET TO THE SOUTHWEST CORNER OF SAID LANDS; THENCE SOUTH 73°27'29" EAST, ALONG THE SOUTH LINE OF SAID LANDS, 792.00 FEET TO THE SOUTHEAST CORNER OF SAID LANDS, SAID SOUTHEAST CORNER LYING ON THE EAST LINE OF AFOREMENTIONED SECTION 43; THENCE NORTH 15°24'55" WEST, ALONG SAID EAST LINE OF SECTION 43, 264.00 FEET TO THE POINT OF BEGINNING.

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PARCEL "B"

A PORTION OF SECTIONS 12, 13, 23, 24, 25 AND SECTION 41 OF THE G.W. PERPALL GRANT, SECTION 42 OF THE G.W. PERPALL GRANT AND SECTION 48 OF THE Z. KINGSLEY GRANT, ALL LYING IN TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST JOHNS COUNTY, FLORIDA, TOGETHER WITH ALL OF SECTIONS 18, 19, 20, 21, 28, 29, 30, 32 AND SECTION 63 OF THE Z. KINGSLEY GRANT, SECTION 68 OF THE D.L. CLINCH GRANT, SECTION 69 OF THE J.M. FONTANE OR A. GAY GRANT, SECTION 70 OF THE J.M. FONTANE GRANT, SECTION 71 OF THE J.M. FONTANE GRANT, SECTION 72 OF THE ANTELM GAY GRANT, SECTION 73 OF THE GAY OR CLINCH GRANT, SECTION 75 OF THE G.W. PERPALL GRANT, SECTION 76 OF THE FONTANE OR GAY GRANT AND SECTION 78 OF THE MARTIN HERNANDEZ GRANT, TOGETHER WITH A PORTION OF SECTIONS 17, 22, 27, 31, 33, 34, AND SECTION 47 OF THE JOHN AYRHAULT GRANT, SECTION 61 OF THE BUSHNELLS HEIRS OR KINGSLEY GRANT, SECTION 62 OF THE HEIRS OF E. BUSHNELL GRANT, SECTION 65 OF THE KINGSLEY, BUSHNELL OR SCHOFIELD GRANT, SECTION 66 OF THE M. SCHOFIELD OR KINGSLEY GRANT, AND SECTION 74 OF THE E.B. GOULD GRANT, ALL LYING IN TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, TOGETHER WITH ALL OF SECTION 53 OF THE MARTIN HERNANDEZ GRANT, TOWNSHIP 7 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, PORTIONS OF WHICH BEING BOUNDED ON THE WEST BY INTERSTATE HIGHWAY NO. 95 AND BOUNDED ON THE NORTH BY INTERNATIONAL GOLF PARKWAY (A.K.A NINE MILE ROAD) AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE EAST LINE OF THE WEST ONE-HALF OF THE WEST ONE HALF OF SAID SECTION 13, TOWNSHIP 6 SOUTH, RANGE 28 EAST, WITH THE SOUTHERLY RIGHT-OF-WAY LINE OF SAID INTERNATIONAL GOLF PARKWAY (A.K.A NINE MILE ROAD), A 66 FOOT MAINTAINED RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 89°11'58" EAST, ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 2427.12 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHWESTERLY, HAVING A RADIUS OF 294.69 FEET, THROUGH A CENTRAL ANGLE OF 52°32'34", AN ARC DISTANCE OF 270.24 FEET, TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING CHORD BEARING AND DISTANCE OF NORTH 62°55'41" EAST, 260.87 FEET; THENCE NORTH 36°39'24" EAST, CONTINUING ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 1152.36 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 943.18 FEET; THROUGH A CENTRAL ANGLE OF 17°30'34", AN ARC DISTANCE OF 288.23 FEET, TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING CHORD BEARING AND DISTANCE OF NORTH 45°24'41" EAST, 287.11 FEET; THENCE NORTH 54°09'58" EAST, ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 1453.75 FEET;

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THENCE NORTH 53°53'42" EAST, CONTINUING ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 1588.34 FEET; THENCE NORTH 54°09'16" EAST, CONTINUING ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 2848.15 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE SOUTHEASTERLY, HAVING A RADIUS OF 2100.15 FEET, THROUGH A CENTRAL ANGLE OF 05°17'15", AN ARC DISTANCE OF 193.81 FEET, TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING CHORD BEARING AND DISTANCE OF NORTH 56°47'54" EAST, 193.75 FEET; THENCE NORTH 59°26'32" EAST, CONTINUING ALONG SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE, 1383.68 FEET TO ITS INTERSECTION WITH THE EAST LINE OF SAID SECTION 62 OF THE HEIRS OF E. BUSHNELL GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 00°17'57" EAST, DEPARTING SAID SOUTHERLY MAINTAINED RIGHT-OF-WAY LINE AND ALONG SAID EAST LINE OF SECTION 62, 2460.64 FEET TO ITS INTERSECTION WITH THE EASTERLY LINE OF SAID SECTION 63 OF THE Z. KINGSLEY GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 18°17'25" EAST, ALONG SAID EASTERLY LINE OF SECTION 63, 3096.11 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF SAID SECTION 17 OF SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 88°26'20" EAST, ALONG SAID NORTH LINE 1297.71 FEET TO ITS INTERSECTION WITH THE WEST LINE OF THE EAST ONE-HALF OF SAID SECTION 17; THENCE SOUTH 01°04'32" EAST, ALONG SAID WEST LINE, 5254.77 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF SAID SECTION 20, TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 89°14'06" EAST, ALONG SAID NORTH LINE, 2514.68 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SECTION 74 OF THE E.B. GOULD GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 20°39'25" WEST, ALONG SAID WEST LINE, 1026.22 FEET TO THE NORTH LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 669, PAGE 1580; THENCE NORTH 69°22'13" EAST, ALONG SAID NORTH LINE, 824.97 FEET TO THE NORTHEAST CORNER OF SAID LANDS; THENCE SOUTH 20°36'04" EAST, ALONG THE EAST LINE OF SAID LANDS OF OFFICIAL RECORDS 669, PAGE 1580, 1125.26 FEET TO A POINT LYING ON THE SOUTH LINE OF SAID SECTION 74; THENCE SOUTH 69°23'06" WEST, ALONG SAID SOUTH LINE, 550.18 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF SAID SECTION 21; SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 89°20'57" EAST, ALONG SAID NORTH LINE OF SECTION 21, 5123.20 FEET TO THE NORTHEAST CORNER OF SAID SECTION 21; THENCE CONTINUE NORTH 89°47'21" EAST, ALONG THE NORTH LINE OF SAID SECTION 22, OF SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST, 4436.53 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SECTION 51 OF THE DANIEL HURLBURT GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 29°34'41" EAST, ALONG SAID WEST LINE, 1738.34 FEET TO ITS INTERSECTION WITH THE EAST LINE OF SAID SECTION 22; THENCE SOUTH 01°46'49" EAST, ALONG SAID EAST LINE, 1099.07 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF GOVERNMENT LOT 8 OF SAID SECTION 22; THENCE SOUTH 89°24'43" WEST, ALONG SAID NORTH LINE AND ALONG THE NORTH LINE OF GOVERNMENT LOTS 9 AND 10 OF SAID SECTION 22, 3953.77 FEET TO THE NORTHEAST CORNER OF SAID

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GOVERNMENT LOT 10; THENCE SOUTH 00°57'43" EAST, ALONG THE WEST LINES OF GOVERNMENT LOTS 10 AND 13 OF SAID SECTION 22, 2636.81 FEET TO A POINT LYING ON THE NORTH LINE OF SAID SECTION 27 OF SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 89°18'45" EAST, ALONG SAID NORTH LINE 2661.72 FEET TO THE NORTHWEST CORNER OF GOVERNMENT LOT 1 OF SAID SECTION 27; THENCE SOUTH 00°59'07" EAST, ALONG THE WEST LINES OF THE GOVERNMENT LOTS 1, 8, 9, AND 16 OF SAID SECTION 27, SAID LINES ALSO BEING THE WEST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 841, PAGE 765 OF THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY, 5328.87 FEET TO A POINT LYING ON THE NORTH LINE OF SAID SECTION 34, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE CONTINUE SOUTH 00°39'38" EAST ALONG THE WEST LINES OF GOVERNMENT LOTS 1, 4, 5 AND 12 OF SAID SECTION 34, SAID LINES ALSO BEING THE WEST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 362, PAGE 240 OF SAID PUBLIC RECORDS OF ST. JOHNS COUNTY, 4968.19 FEET TO A POINT LYING ON THE NORTH LINE OF SECTION 81 OF THE JOS. DELESPINE GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 84°16'08" WEST, ALONG SAID NORTH LINE, 113.78 FEET TO THE NORTHWEST CORNER OF SAID SECTION 81; THENCE SOUTH 33°53'35" EAST, ALONG THE WEST LINE OF SAID SECTION 81, 206.60 FEET, TO THE NORTHERLY CORNER OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 551, PAGE 461, SAID ST. JOHNS COUNTY, FLORIDA; THENCE SOUTH 00°48'56" EAST, ALONG THE WEST LINE OF SAID LANDS, 171.71 FEET TO ITS INTERSECTION OF THE NORTH RIGHT-OF-WAY LINE OF A "VARIABLE WIDTH RIGHT-OF-WAY" COUNTY ROAD; THENCE SOUTH 89°00'52" WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 695.47 FEET; THENCE NORTH 00°59'08" WEST ALONG SAID RIGHT-OF-WAY, 10.00 FEET; THENCE SOUTH 89°00'52" WEST ALONG SAID RIGHT-OF-WAY, 265.71 FEET; TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 247.95 FEET, THROUGH A CENTRAL ANGLE OF 74°02'59", AN ARC DISTANCE OF 320.45 FEET, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF NORTH 53°57'38" WEST, 298.61 FEET; THENCE SOUTH 73°03'52" WEST, DEPARTING SAID CURVE, CONTINUING ALONG EASTERLY RIGHT-OF-WAY OF SAID COUNTY ROAD, 10.00 FEET; THENCE NORTH 16°56'08" WEST, ALONG SAID RIGHT-OF-WAY, 2866.49 FEET TO THE SOUTH LINE OF SECTION 47 OF THE JOHN AYRHAULT GRANT, THENCE NORTH 72°01'07" EAST, 679.89 FEET, TO THE SOUTHEAST CORNER OF SAID SECTION 47; THENCE NORTH 17°58'34" WEST, ALONG THE EAST LINE OF SAID SECTION 47, 2785.78 FEET; THENCE SOUTH 72°00'54" WEST, 2180.18 FEET ALONG THE SOUTH LINE OF A PARCEL DESCRIBED IN OFFICIAL RECORDS 417, PAGE 549, TO A POINT ON THE WEST LINE OF SAID SECTION 47; THENCE SOUTH 17°58'08" EAST ALONG SAID WEST LINE OF SECTION 47, 2785.63 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 47; THENCE NORTH 72°01'07" EAST, 1425.61 FEET TO THE WESTERLY RIGHT-OF-WAY OF THE AFOREMENTIONED COUNTY ROAD; THENCE SOUTH 16°56'08" EAST, ALONG SAID RIGHT-OF-WAY, 2865.12 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 332.95

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FEET; THROUGH A CENTRAL ANGLE OF 43°54'54", AN ARC DISTANCE OF 255.19 FEET, SAID CURVE HAVING CHORD BEARING AND DISTANCE OF SOUTH 38°53'35" EAST, 248.99 FEET; THENCE SOUTH 89°00'52" WEST ALONG SAID SOUTH LINE OF SECTION 34, LEAVING SAID SOUTHEASTERLY RIGHT-OF-WAY LINE, 1469.54 FEET TO THE EAST LINE OF GOVERNMENT LOT 9, SECTION 34, TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE NORTH 01°05'09" WEST, ALONG SAID EAST LINE, 1321.83 FEET, TO ITS INTERSECTION WITH THE NORTH LINE OF SAID GOVERNMENT LOT 9; THENCE SOUTH 89°17'05" WEST, ALONG SAID NORTH LINE, 1313.16 FEET, TO ITS INTERSECTION WITH THE WEST LINE SAID GOVERNMENT LOT 9; THENCE SOUTH 00°32'54" EAST, ALONG SAID WEST LINE, 1328.06 FEET, TO THE SOUTHWEST CORNER OF SAID SECTION 34; THENCE SOUTH 89°38'16" WEST ALONG THE SOUTH LINE OF SAID SECTION 33 OF SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST, 1327.14 FEET, TO ITS INTERSECTION WITH THE EAST LINE OF GOVERNMENT LOT 15 OF SAID SECTION 33; THENCE NORTH 00°16'12" WEST ALONG THE EAST LINE OF GOVERNMENT LOTS 15 AND 10 OF SAID SECTION 33, SAID LINE ALSO BEING THE EAST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 817, PAGE 1583 OF SAID PUBLIC RECORDS, 2637.39 FEET, TO THE NORTHEAST CORNER OF SAID LANDS AND SAID GOVERNMENT LOT 10; THENCE SOUTH 89°22'14" WEST, ALONG THE NORTH LINE OF SAID LOT 10 AND SAID LANDS, 1320.71 FEET, TO THE NORTHWEST CORNER OF SAID LOT 10 OF OFFICIAL RECORDS 817, PAGE 1583, ALSO BEING THE NORTHEAST CORNER OF GOVERNMENT LOT 11 AS DESCRIBED IN OFFICIAL RECORDS 161, PAGE 21; THENCE NORTH 89°56'42" WEST ALONG THE NORTH LINE OF SAID LOT 11, 1318.84 FEET, TO THE NORTHWEST CORNER OF SAID LOT 11 OF SAID SECTION 33; THENCE SOUTH 01°02'53" WEST, ALONG THE WEST LINE OF SAID LOT 11 AND GOVERNMENT LOT 14 OF SAID SECTION 33 AND ALONG THE WEST LINE OF SAID LANDS OF OFFICIAL RECORDS 161, PAGE 21, 1637.46 FEET, TO ITS INTERSECTION WITH THE NORTH LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 1260, PAGE 116 OF SAID PUBLIC RECORDS OF ST. JOHNS COUNTY; THENCE SOUTH 88°55'18" WEST, ALONG SAID NORTHERLY LINE, 535.05 FEET, TO A POINT LYING ON THE EAST LINE OF SAID SECTION 78 OF THE MARTIN HERNANDEZ GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 05°58'23" EAST, ALONG SAID EAST LINE, 1001.98 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 78; THENCE CONTINUE SOUTH 05°58'23" EAST, ALONG THE EAST LINE OF SAID SECTION 53 OF THE MARTIN HERNANDEZ GRANT, TOWNSHIP 7 SOUTH, RANGE 29 EAST, 4937.28 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 53; THENCE SOUTH 85°10'01" WEST, ALONG THE SOUTH LINE OF SAID SECTION 53, 2632.78 FEET TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH 06°01'40" WEST, ALONG THE WEST LINE OF SAID SECTION 53, 5128.97 FEET, TO A POINT LYING ON THE SOUTH LINE OF SAID SECTION 32, TOWNSHIP 6 SOUTH, RANGE 29 EAST; THENCE SOUTH 89°09'29" WEST, ALONG SAID SOUTH LINE, 3637.42 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 32; THENCE SOUTH 89°06'28" WEST, ALONG THE SOUTH LINE OF SAID SECTION 31 OF SAID TOWNSHIP 6 SOUTH, RANGE 29 EAST, 2232.31 FEET TO ITS INTERSECTION WITH THE NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF SAID INTERSTATE HIGHWAY NO. 95; THENCE NORTH 38°29'55" WEST, ALONG SAID EASTERLY

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LIMITED ACCESS RIGHT-OF-WAY LINE, 186.52 FEET; THENCE NORTH 53°29'55" WEST, CONTINUING ALONG SAID NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 502.30 FEET; THENCE NORTH 38°29'55" WEST, CONTINUING ALONG SAID NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 4207.72 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SECTION 31; THENCE NORTH 01°17'47" WEST DEPARTING SAID NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE AND ALONG SAID WEST LINE OF SECTION 31, 1494.22 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF SECTION 42 OF THE G.W. PERPALL GRANT, TOWNSHIP 6 SOUTH, RANGE 28 EAST, SAID ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 86°11'10" WEST, ALONG SAID SOUTH LINE OF SECTION 42, 1221.72 FEET TO ITS INTERSECTION WITH SAID NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95; THENCE NORTH 38°29'55" WEST, ALONG SAID NORTHEASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 3369.70 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID LIMITED ACCESS RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHEASTERLY, HAVING A RADIUS OF 11309.59 FEET, THROUGH A CENTRAL ANGLE OF 10°59'20", AN ARC DISTANCE OF 2169.09 FEET, TO THE POINT OF TANGENCY OF SAID CURVE, SAID CURVE HAVING CHORD BEARING AND DISTANCE OF NORTH 33°00'15" WEST, 2165.77 FEET; THENCE NORTH 27°30'35" WEST, CONTINUING ALONG SAID EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 3696.91 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SECTION 23, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE NORTH 04°34'27" EAST, DEPARTING SAID EASTERLY LIMITED ACCESS RIGHT-OF-WAY LINE AND ALONG SAID WEST LINE OF SECTION 23, 2569.22 FEET TO THE NORTH LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 974, PAGE 1795 OF THE PUBLIC RECORDS OF SAID COUNTY; THENCE NORTH 85°57'54" WEST ALONG THE NORTH LINES OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 974, PAGE 1795, OFFICIAL RECORDS 667, PAGE 1044 AND OFFICIAL RECORDS 1126, PAGE 1017, 1375.28 FEET TO A POINT LYING ON THE WEST LINE OF SAID SECTION 23; THENCE NORTH 20°30'33" EAST, ALONG SAID WEST LINE, 120.81 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF SAID SECTION 23; THENCE NORTH 89°19'05" EAST, ALONG SAID NORTH LINE OF SECTION 23 AND THE NORTH LINE OF SECTION 24, 3146.12 FEET TO ITS INTERSECTION WITH SAID EAST LINE OF THE WEST ONE-HALF OF THE WEST ONE-HALF OF SAID SECTION 13, TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE NORTH 00°10'32" EAST, ALONG SAID EAST LINE, 5261.31 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT WELL SITES AS DESCRIBED IN OFFICIAL RECORDS 494, PAGES 647 THROUGH 649 AND 654 OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

WELL SITE NO. 1, BEING A PORTION OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

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FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 89°20'57" EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH 24°16'50" EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH 24°02'58" EAST, 147.39 FEET; THENCE SOUTH 24°05'12" EAST, 824.91 FEET; THENCE SOUTH 24°06'19" EAST, 147.64 FEET; THENCE SOUTH 24°04'58" EAST, 1352.55 FEET; THENCE SOUTH 24°10'44" EAST, 147.63 FEET; THENCE SOUTH 24°05'48" EAST, 1352.23 FEET; THENCE SOUTH 24°06'04" EAST, 147.67 FEET; THENCE SOUTH 24°05'51" EAST, 1358.65 FEET; THENCE SOUTH 23°18'07" EAST, 74.06 FEET; THENCE SOUTH 15°01'19" EAST, 74.06 FEET; THENCE SOUTH 14°18'22" EAST, 1358.36 FEET; THENCE SOUTH 14°16'26" EAST, 147.55 FEET; THENCE SOUTH 14°17'51" EAST, 1354.64 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH 14°16'54" EAST, 77.71 FEET; THENCE SOUTH 48°45'31" EAST, 79.21 FEET; THENCE SOUTH 75°41'32" WEST, 186.92 FEET; THENCE NORTH 14°16'55" WEST, 143.09 FEET; THENCE NORTH 75°42'16" EAST, 142.02 FEET TO THE POINT OF BEGINNING.

WELL SITE NO. 2, BEING A PORTION OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH 89°20'57" EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH 24°16'50" EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH 24°02'58" EAST, 147.39 FEET; THENCE SOUTH 24°05'12" EAST, 824.91 FEET; THENCE SOUTH 24°06'19" EAST, 147.64 FEET; THENCE SOUTH 24°04'58" EAST, 1352.55 FEET; THENCE SOUTH 24°10'44" EAST, 147.63 FEET; THENCE SOUTH 24°05'48" EAST, 1352.23 FEET; THENCE SOUTH 24°06'04" EAST, 147.67 FEET; THENCE SOUTH 24°05'51" EAST, 1358.65 FEET; THENCE SOUTH 23°18'07" EAST, 74.06 FEET; THENCE SOUTH 15°01'19" EAST, 74.06 FEET; THENCE SOUTH 14°18'22" EAST, 1358.36 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH 14°16'26" EAST, 147.55 FEET; THENCE SOUTH 75°42'45" WEST, 147.55 FEET; THENCE NORTH 14°17'03" WEST, 147.57 FEET; THENCE NORTH 75°43'10" EAST, 147.57 FEET TO THE POINT OF BEGINNING.

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WELL SITE NO. 3, BEING A PORTION OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $89^{\circ}20'57''$ EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH $24^{\circ}16'50''$ EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH $24^{\circ}02'58''$ EAST, 147.39 FEET; THENCE SOUTH $24^{\circ}05'12''$ EAST, 824.91 FEET; THENCE SOUTH $24^{\circ}06'19''$ EAST, 147.64 FEET; THENCE SOUTH $24^{\circ}04'58''$ EAST, 1352.55 FEET; THENCE SOUTH $24^{\circ}10'44''$ EAST, 147.63 FEET; THENCE SOUTH $24^{\circ}05'48''$ EAST, 1352.23 FEET; THENCE SOUTH $24^{\circ}06'04''$ EAST, 147.67 FEET; THENCE SOUTH $24^{\circ}05'51''$ EAST, 1358.65 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $23^{\circ}18'07''$ EAST, 74.06 FEET; THENCE SOUTH $15^{\circ}01'19''$ EAST, 74.06 FEET; THENCE SOUTH $70^{\circ}48'43''$ WEST, 144.47 FEET; THENCE NORTH $19^{\circ}11'28''$ WEST, 147.68 FEET; THENCE NORTH $70^{\circ}47'27''$ EAST, 144.54 FEET TO THE POINT OF BEGINNING.

WELL SITE NO. 4, BEING A PORTION OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $89^{\circ}20'57''$ EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH $24^{\circ}16'50''$ EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH $24^{\circ}02'58''$ EAST, 147.39 FEET; THENCE SOUTH $24^{\circ}05'12''$ EAST, 824.91 FEET; THENCE SOUTH $24^{\circ}06'19''$ EAST, 147.64 FEET; THENCE SOUTH $24^{\circ}04'58''$ EAST, 1352.55 FEET; THENCE SOUTH $24^{\circ}10'44''$ EAST, 147.63 FEET; THENCE SOUTH $24^{\circ}05'48''$ EAST, 1352.23 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $24^{\circ}06'04''$ EAST, 147.67 FEET; THENCE SOUTH $65^{\circ}52'22''$ WEST, 147.71 FEET; THENCE NORTH $24^{\circ}05'57''$ WEST, 147.77 FEET; THENCE NORTH $65^{\circ}54'41''$ EAST, 147.70 FEET TO THE POINT OF BEGINNING.

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WELL SITE NO. 5, BEING A PORTION OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $89^{\circ}20'57''$ EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH $24^{\circ}16'50''$ EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH $24^{\circ}02'58''$ EAST, 147.39 FEET; THENCE SOUTH $24^{\circ}05'12''$ EAST, 824.91 FEET; THENCE SOUTH $24^{\circ}06'19''$ EAST, 147.64 FEET; THENCE SOUTH $24^{\circ}04'58''$ EAST, 1352.55 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $24^{\circ}10'44''$ EAST, 147.63 FEET; THENCE SOUTH $65^{\circ}53'19''$ WEST, 147.68 FEET; THENCE NORTH $24^{\circ}04'49''$ WEST, 147.67 FEET; THENCE NORTH $65^{\circ}54'18''$ EAST, 147.43 FEET TO THE POINT OF BEGINNING.

WELL SITE NO. 6, BEING A PORTION OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $89^{\circ}20'57''$ EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH $24^{\circ}16'50''$ EAST, DEPARTING SAID NORTH LINE, 874.71 FEET; THENCE SOUTH $24^{\circ}02'58''$ EAST, 147.39 FEET; THENCE SOUTH $24^{\circ}05'12''$ EAST, 824.91 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $24^{\circ}06'19''$ EAST, 147.64 FEET; THENCE SOUTH $65^{\circ}55'08''$ WEST, 147.69 FEET; THENCE NORTH $24^{\circ}03'43''$ WEST, 147.63 FEET; THENCE NORTH $65^{\circ}54'47''$ EAST, 147.57 FEET TO THE POINT OF BEGINNING.

WELL SITE NO. 7, BEING A PORTION OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74,

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WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $89^{\circ}20'57''$ EAST, ALONG SAID NORTH LINE OF SECTION 21, 380.81 FEET; THENCE SOUTH $24^{\circ}16'50''$ EAST, DEPARTING SAID NORTH LINE, 874.71 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $24^{\circ}02'58''$ EAST, 147.39 FEET; THENCE SOUTH $65^{\circ}57'20''$ WEST, 147.63 FEET; THENCE NORTH $24^{\circ}04'23''$ WEST, 147.52 FEET; THENCE NORTH $66^{\circ}00'26''$ EAST, 147.70 FEET TO THE POINT OF BEGINNING.

WELL SITE NO. 8, BEING A PORTION OF THE E. B. GOULD GRANT, SECTION 74, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF REFERENCE COMMENCE AT A CONCRETE MONUMENT AT THE INTERSECTION OF THE SOUTH LINE OF THE E. B. GOULD GRANT, SECTION 74, WITH THE NORTH LINE OF SECTION 21, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA; THENCE NORTH $69^{\circ}23'06''$ EAST, ALONG SAID SOUTH LINE OF THE E. B. GOULD GRANT, 353.09 FEET; THENCE NORTH $24^{\circ}04'17''$ WEST, DEPARTING SAID SOUTH LINE, 357.45 FEET TO THE POINT OF BEGINNING.

FROM THE POINT OF BEGINNING THUS DESCRIBED, THENCE SOUTH $57^{\circ}41'01''$ WEST, 145.88 FEET; THENCE NORTH $32^{\circ}19'02''$ WEST, 147.59 FEET; THENCE NORTH $57^{\circ}41'17''$ EAST, 147.64 FEET; THENCE SOUTH $32^{\circ}19'24''$ EAST, 135.33 FEET; THENCE SOUTH $24^{\circ}04'30''$ EAST, 12.37 FEET TO THE POINT OF BEGINNING.

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PARCEL "C"

A PORTION OF SECTIONS 33, AND 34, TOWNSHIP 5 SOUTH, RANGE 28 EAST, TOGETHER WITH ALL OF SECTION 4 AND A PORTION OF SECTION 5, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE NORTHWEST CORNER OF SECTION 33, TOWNSHIP 5 SOUTH, RANGE 28 EAST, THENCE NORTH $88^{\circ}53'30''$ EAST, ALONG SAID NORTH LINE OF SAID SECTION 33, 3135.83 FEET, TO ITS INTERSECTION WITH THE WESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE SOUTH $27^{\circ}29'18''$ EAST, ALONG SAID WESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 5823.20 FEET, TO ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 34; THENCE SOUTH $88^{\circ}57'08''$ WEST, ALONG SAID SOUTH LINE, 137.34 FEET, TO THE NORTHEAST CORNER OF SAID SECTION 4, TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH $0^{\circ}58'59''$ EAST, ALONG THE EAST LINE OF SAID SECTION 4, 5239.28 FEET, TO THE SOUTHEAST CORNER OF SAID SECTION 4; THENCE SOUTH $88^{\circ}23'33''$ WEST; ALONG THE SOUTH LINE OF SAID SECTION 4, 5297.65 FEET, TO ITS INTERSECTION WITH THE WEST LINE OF THE LANDS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 546, OF THE PUBLIC RECORDS OF SAID COUNTY; SAME BEING THE SOUTHEAST CORNER OF SAID SECTION 5, TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE NORTH $4^{\circ}11'05''$ WEST, ALONG SAID WEST LINE, 5297.56 FEET, TO THE SOUTHWEST CORNER OF SECTION 33, TOWNSHIP 5 SOUTH, RANGE 28 EAST; THENCE NORTH $1^{\circ}01'40''$ WEST, ALONG THE WEST LINE OF SAID SECTION 33, 5212.16 FEET, TO THE NORTHWEST CORNER OF SECTION 33, AND THE POINT OF BEGINNING.

TOGETHER WITH AN ACCESS EASEMENT AS RECORDED IN OFFICIAL RECORDS 1296, PAGE 1630, AND AN ACCESS EASEMENT AS RECORDED IN OFFICIAL RECORDS 1309, PAGE 1486, OF SAID ST. JOHNS COUNTY, FLORIDA.

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PARCEL "D"

A PORTION OF SECTIONS 23, 24, 25 AND 26, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE EAST LINE OF SAID SECTION 39, SAID TOWNSHIP AND RANGE, WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE SOUTH 27°30'35" EAST, ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 3218.35 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID LIMITED ACCESS RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHEASTERLY, AND HAVING A RADIUS OF 11609.60 FEET, THROUGH A CENTRAL ANGLE OF 06°44'12", AN ARC DISTANCE OF 1365.00 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1219, PAGE 1280 OF THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY, SAID POINT ALSO LYING ON THE NORTHERLY LINE OF SECTION 41 OF THE G. W. PERPALL GRANT, SAID TOWNSHIP AND RANGE, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 30°52'41" EAST, 1364.22 FEET; THENCE SOUTH 71°18'09" WEST, DEPARTING SAID LIMITED ACCESS RIGHT-OF-WAY LINE AND ALONG SAID NORTH LINE OF SECTION 41, 986.91 FEET; THENCE NORTH 25°22'20" WEST, ALONG THE NORTHERLY LINES OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 256, PAGE 273, OFFICIAL RECORDS 401, PAGE 422, AND OFFICIAL RECORDS 1120, PAGE 255, ALL BEING IN THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY, AND CONTINUING ALONG SAID NORTHERLY LINE OF SECTION 41, 2188.21 FEET TO ITS INTERSECTION WITH THE WESTERLY LINE OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS 1120, PAGE 255, SAID LINE ALSO BEING THE WESTERLY LINE OF SAID SECTION 41; THENCE SOUTH 18°38'24" WEST, ALONG SAID WESTERLY LINE OF SECTION 41, 2403.91 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 468, PAGE 539 OF SAID PUBLIC RECORDS, SAID LINE ALSO BEING THE NORTH LINE OF GOVERNMENT LOT 6, OF SAID SECTION 26; THENCE SOUTH 89°44'13" WEST, ALONG SAID NORTH LINE, 527.19 FEET TO ITS INTERSECTION WITH THE NORTHEASTERLY LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 557 OF SAID PUBLIC RECORDS; THENCE NORTH 40°22'51" WEST, ALONG SAID NORTHEASTERLY LINE, 1128.04 FEET TO ITS INTERSECTION WITH THE NORTHWESTERLY LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 557; THENCE SOUTH 62°45'36" WEST, ALONG SAID NORTHWESTERLY LINE, 475.24 FEET TO ITS INTERSECTION WITH THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO.16, A 200 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 47°54'08" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 1563.25 FEET TO ITS INTERSECTION WITH THE EASTERLY LINE OF SECTION 38 OF THE A. HUERTAS GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST, SAID POINT ALSO LYING ON THE WESTERLY LINE OF SAID

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SECTION 26; THENCE NORTH $19^{\circ}24'08''$ EAST, ALONG SAID LINE, 1032.79 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1484, PAGE 363 OF SAID PUBLIC RECORDS, SAID LINE ALSO BEING THE NORTH LINE OF SAID SECTION 26; THENCE NORTH $88^{\circ}23'57''$ EAST, ALONG SAID LINE, 677.88 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SECTION 39 OF THE E. ASTHON GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH $04^{\circ}31'15''$ WEST, ALONG SAID WEST LINE OF SECTION 39, 31.26 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 39; THENCE SOUTH $85^{\circ}26'09''$ EAST, ALONG THE SOUTH LINE OF SAID SECTION 39, 2110.17 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 39; THENCE NORTH $04^{\circ}34'27''$ EAST, ALONG THE EAST LINE OF SAID SECTION 39, 2167.93 FEET TO THE POINT OF BEGINNING.

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PARCEL "E"

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A PORTION OF SECTION 36 AND SECTION 42 OF THE G.W PERPALL GRANT, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE WEST LINE OF SAID SECTION 42 WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE SOUTH 38°29'55" EAST, ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 2654.80 FEET TO ITS INTERSECTION WITH THE EAST LINE OF GOVERNMENT LOT 2, OF SAID SECTION 36; THENCE SOUTH 00°59'44" EAST, ALONG SAID EAST LINE, 964.75 FEET TO THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89°45'54" WEST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 2, 1334.32 FEET TO THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE SOUTH 00°41'40" EAST, ALONG THE EAST LINE OF LANDS DESCRIBED IN DEED BOOK 243, PAGE 411 OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA, 483.75 FEET TO THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 16, A 200 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 36°41'04" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 804.78 FEET TO THE NORTH LINE OF SAID LANDS DESCRIBED IN DEED BOOK 243, PAGE 411; THENCE NORTH 79°19'37" EAST, ALONG SAID NORTH LINE, 480.19 FEET TO THE WEST LINE OF AFOREMENTIONED GOVERNMENT LOT 2; THENCE NORTH 00°41'40" WEST, ALONG SAID WEST LINE OF GOVERNMENT LOT 2, 1136.70 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 42; THENCE SOUTH 79°22'17" WEST, ALONG SAID SOUTH LINE, 871.32 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 42; THENCE NORTH 16°33'19" EAST, ALONG THE WEST LINE OF SAID SECTION 42, 1888.62 FEET TO THE POINT OF BEGINNING.

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PARCEL "F"

A PORTION OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 29 EAST, AND A PORTION OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE WESTERLY LINE OF SAID SECTION 31, TOWNSHIP 6 SOUTH, RANGE 29 EAST, WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; THENCE SOUTH 38°29'55" EAST, ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE, 3741.44 FEET; THENCE SOUTH 23°29'55" EAST, CONTINUING ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 353.15 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 31; THENCE SOUTH 89°06'28" WEST, DEPARTING SAID LIMITED ACCESS RIGHT-OF-WAY LINE, AND ALONG SAID SOUTH LINE OF SECTION 31, 1097.48 FEET TO ITS INTERSECTION WITH THE SOUTHEASTERLY LINE OF THOSE LANDS DESCRIBED IN DEED BOOK 206, PAGE 589, SAID ST. JOHNS COUNTY; THENCE SOUTH 33°06'53" WEST, ALONG SAID SOUTHEASTERLY LINE, 99.64 FEET TO THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 16, A 200 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 56°01'25" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 57.10 FEET TO A NORTHWESTERLY LINE OF SAID LANDS DESCRIBED IN DEED BOOK 206, PAGE 589; THENCE NORTH 37°01'53" EAST, ALONG JUST MENTIONED NORTHWESTERLY LINE, 166.61 FEET TO THE EAST LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1073, PAGE 1879 OF THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY; THENCE NORTH 01°01'04" WEST, ALONG SAID EASTERLY LINE, 1236.59 FEET TO THE NORTHEAST CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS 1073, PAGE 1879 OF SAID PUBLIC RECORDS; THENCE SOUTH 89°01'20" WEST, ALONG SAID NORTH LINE, 1311.00 FEET TO THE WEST LINE OF SAID SECTION 31; THENCE NORTH 01°00'42" WEST, ALONG SAID WEST LINE OF SECTION 31, 1285.17 FEET; THENCE NORTH 01°17'47" WEST, CONTINUING ALONG SAID WEST LINE, 688.81 FEET TO THE POINT OF BEGINNING.

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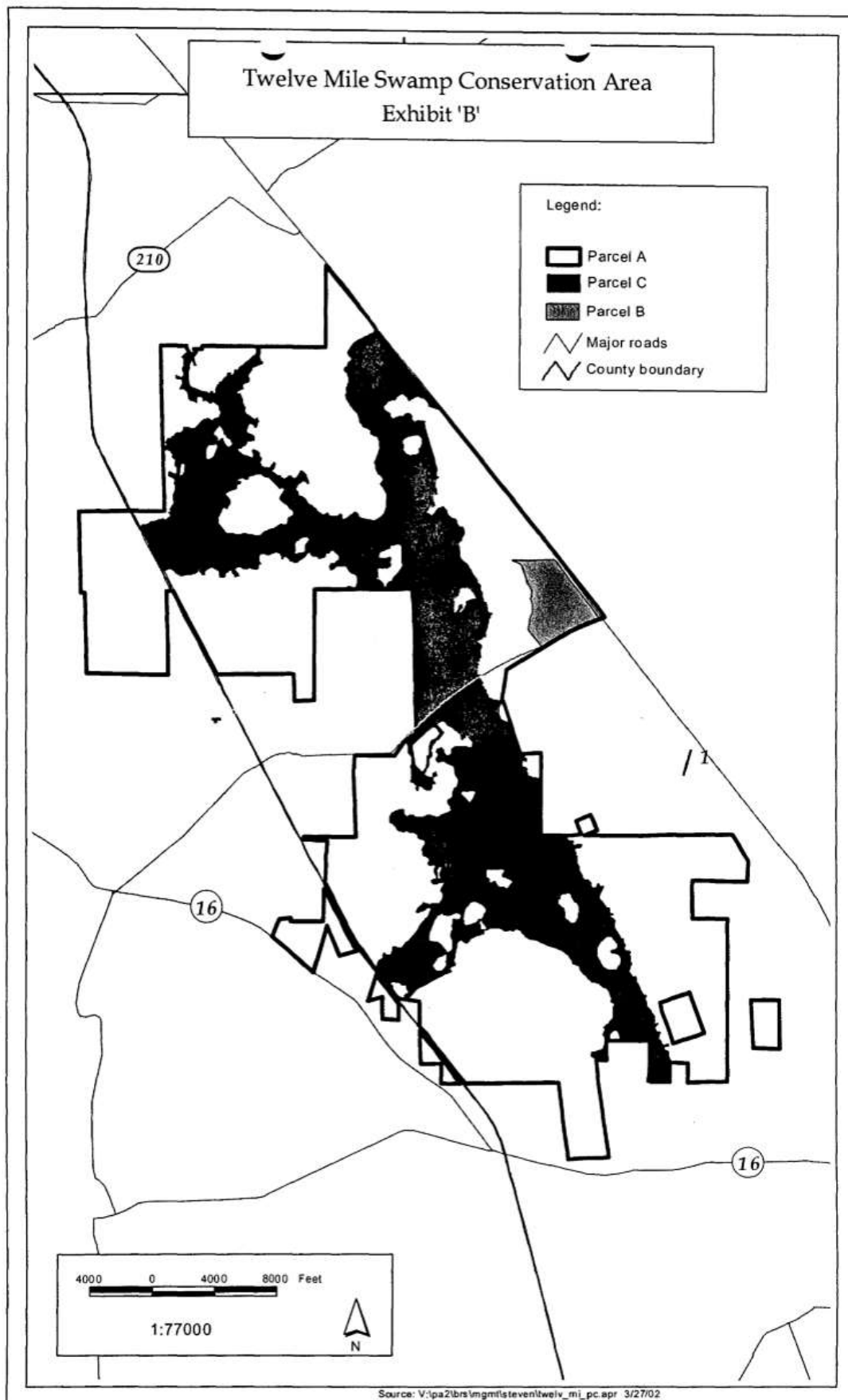
PARCEL "G"

ALL OF GOVERNMENT LOTS 4 AND 5, SECTION 35, TOWNSHIP 6 SOUTH, RANGE 29 EAST, ST. JOHNS COUNTY, FLORIDA, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 4 AS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 549 ALSO BEING THE NORTHWEST CORNER OF SAID SECTION 35; THENCE NORTH 88°33'16" EAST, ALONG THE NORTH LINE OF SAID GOVERNMENT LOT 4, ALSO BEING THE NORTH LINE OF SAID SECTION 35, 1327.63 FEET TO ITS INTERSECTION WITH THE WEST LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1412, PAGE 638 OF THE PUBLIC RECORDS OF SAID COUNTY; THENCE SOUTH 01°37'34" EAST, ALONG SAID WEST LINE, AND ALONG THE WEST LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 915, PAGE 812, OF SAID PUBLIC RECORDS, 2677.35 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1302, PAGE 1269 OF SAID PUBLIC RECORDS; THENCE SOUTH 89°00'48" WEST ALONG SAID NORTH LINE, 1356.52 FEET TO ITS INTERSECTION WITH SAID WEST LINE OF SAID SECTION 35; THENCE NORTH 01°00'26" WEST ALONG SAID WEST LINE, 2666.55 FEET TO THE POINT OF BEGINNING.

MASTER REVISED 2/16/01

Page 24 of 24



5/8/01

LIST OF ARC/DIVISION OF STATE LANDS
APPROVED INTERIM MANAGEMENT ACTIVITIES

The attached list describes activities that an agency may initiate on state-owned uplands without either review of the Acquisition and Restoration Council (ARC) or any further approval from the Division of State Lands. This list applies to agencies that have either executed a lease with the Board of Trustees, or have submitted an executed Interim Management Letter for new acquisitions. These activities are considered approved in concept by Chapter 253, Florida Statutes, and are accepted as necessary for routine custodial care and maintenance of a site between its acquisition and approval of its land management plan. In some cases, the applicable water management district, the Florida Natural Areas Inventory (FNAI), or the ARC representative from either the Department of State's Division of Historical Resources (DHR) or the Department of Environmental Protection (DEP), may review a proposed activity prior to its initiation. The agency requiring such additional review has been indicated following the activity. Where a specific water management district has requested review, that district has also been indicated. **(District review applies only when land subject to the interim management activities list is located within the jurisdiction of the requesting district.)** Each interim management activity has been designated as follows:

- A No review required.
- B DEP, WMD, DHR, or FNAI review required.

Any activity not specifically listed must be submitted to both the Division of State Lands and ARC for review.

1. **Posting.**
 - A Posting areas that are deemed by the manager to be potentially hazardous to the public, and posting those areas where public use may result in damage to state-owned lands.
2. **Law enforcement and protection.**
 - A Providing appropriate law enforcement and resource protection.
3. **Management plan development.**
 - A Developing a property's land management plan.
4. **Bridge or culvert replacement and/or repair.**
 - B Repair or replacement of any wooden trestle bridge or poured culvert, regardless of age, or any bridge built after 1945 (WMD).
 - B Repair or replacement of any bridges or culverts (DOS/WMD).
5. **Road repairs.**
 - A Repairing existing roadbeds, when such repairs are minor and necessary to assure safe and reasonable public use. **Upgrading roads (widening, paving, etc.) is not authorized by this list.**
6. **Establishing parking areas.**
 - A Establishing temporary parking areas along existing accessways when a disturbed area is available and subsurface ground disturbance will not exceed 6 inches. Such parking should represent the minimum square footage necessary to provide public access.
 - B Establishing temporary parking locations along existing accessways when a disturbed area is available and subsurface ground disturbance will exceed 6 inches (DOS). Such parking should represent the minimum square footage necessary to provide public access.

7. **Exotic or off-site species control.**

- A Controlling invasive, exotic, or off-site species using methods that do not require ground disturbance, such as prescribed burning, girdling, sale, or herbicide injection.
- (Note: removal of exotic pasture grasses represents an approved exception to the ground disturbance prohibition.)

8. **Prescribed burning.**

- A Implementing prescribed burning using existing firelines. Improvement of existing lines is limited to reworking with a re-work harrow.
- B Implementing prescribed burning using new firelines (DOS/DEP/WMD/FNAI).

9. **Fences and gates.**

- A Installing fences and gates or removing deteriorated or unneeded fences, gates or signs.

10. **Removal of structures.**

- B Removal of old, deteriorated, or unsafe structures (DOS).

11. **Replacing existing water control structures or devices.**

- B Removing or replacing existing water control structures, including culverts, wellheads, flashboard risers, etc., provided that the activity is properly permitted and clearly consistent with the project assessment or design documents prepared during the land acquisition process (WMD).

12. **Wildlife habitat enhancement.**

- A Enhancing wildlife habitat using methods that do not include alteration of native habitat. Such activities shall include installing nest structures or towers for raptors such as ospreys or eagles. Installation of food plots is not authorized.

13. **Trash.**

- A Removal of trash and debris.

14. **Personnel.**

- A Establishing personnel on site in existing facilities.

Activities requiring review by the Department of State (DOS) should be directed to:

Susan Harp, Historic Preservation Planner
Department of State
Division of Historical Resources
R.A. Gray Building, Room 423
Tallahassee, Florida 32399 (850) 487-2333

Activities requiring review by the Florida Natural Areas Inventory (FNAI) should be directed to:

Carolyn Kindell
Managed Areas Biologist
Florida Natural Areas Inventory
1018 Thomasville Road, Suite 200-C
Tallahassee, Florida 32302 (850) 224-8207

Activities requiring review by the Department of Environmental Protection (DEP) should be directed to:

Mark Glisson, Environmental Administrator
Department of Environmental Protection
Mail Station 100
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000 (850) 488-2725

Activities requiring review by a water management district should be sent to the senior land resources planner in that water management district.

Please provide copies of all correspondence to Mr. Glisson at the above address.

The authority granted herein in no way waives the authority or jurisdiction of any governmental entity. Implementation of upland activities may require permits or authorizations from other federal or state agencies with jurisdiction over those particular activities. Please forward a copy of all permits for our files upon issuance.

PROL1

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

PARTIAL RELEASE OF LEASE

STATE OF FLORIDA
COUNTY OF ST. JOHNS
LEASE NUMBER 4400

The undersigned on the 24th day of February, 2015 do(es)
hereby quitclaim, release, and surrender all right, title, and interest in and
to the leasehold estate in the lands described in attached Exhibit "A" which
are leased under Lease Agreement Number 4400 dated June 20th, 2003, between
the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF
FLORIDA, as LESSOR, and the ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, as
LESSEE, effective the 5th day of MARCH, 2015.

ST. JOHNS RIVER
WATER MANAGEMENT DISTRICT

By:

Hans G. Tanzler, III
Executive Director

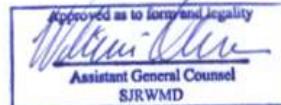
Lori Griffith
Witness
Lori Griffith
Print/Type Name

[Signature]
Witness

William J.B. Miller
Print/Type Name

STATE OF FLORIDA
COUNTY OF Duval

"GRANTEE"



The foregoing instrument was acknowledged before me this 24th day of
February, 2015, by Hans G. Tanzler, III, as Executive Director on behalf of
the St. Johns River Water Management District. He is personally known to me
or has produced _____ as identification.

Lori Griffith
Notary Public, State of Florida

Lori Griffith
Print/Type Notary Name

Commission Number:

Commission Expires:



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

David Lee Fewell
Witness

DAVE FEWELL
Print/Type Witness Name

Kathy C. Griffin
Witness

Kathy C. Griffin
Print/Type Witness Name

Cheryl C. McCall (SEAL)
CHERYL C. McCALL, CHIEF,
BUREAU OF PUBLIC LAND
ADMINISTRATION, DIVISION OF
STATE LANDS, STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

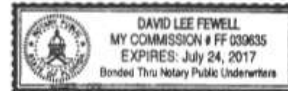
The foregoing instrument was acknowledged before me this 5th day of MARCH, 2015, by Cheryl C. McCall, Chief, Bureau of Public Land Administration, Division of State Lands, State of Florida Department of Environmental Protection, acting as agent for and on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. She is personally known to me.

David Lee Fewell
Notary Public, State of Florida

Print/Type Notary Name

Commission Number:

Commission Expires:



Approved Subject to Proper Execution

By:

[Signature]
DEP Attorney

Digitally signed by David L. Fewell
DN: cn=David L. Fewell, o=State of Florida
Department of Environmental Protection
Reason: I am the Signer
Date: 2015.04.12 09:44:04 -0500

EXHIBIT "A"

LEGAL DESCRIPTION OF RELEASED PREMISES

CR2189PG 531

An undivided 50% interest in and to the following described property:

A portion of Sections 33, and 34, Township 5 South, Range 28 East, together with all of Section 4 and a portion of Section 5, Township 6 South, Range 28 East, St. Johns County, Florida, and being more particularly described as follows:

For a point of beginning, commence at the Northwest corner of Section 33, Township 6 South, Range 28 East, thence North 88°53'30" East, along said North line of said Section 33, 3135.83 feet; to its intersection with the Westerly limited access right-of-way line of Interstate Highway No. 95, a 100 foot right-of-way as presently established; thence South 27°29'19" East, along said Westerly limited access right-of-way line, 5823.28 feet, to its intersection with the South line of Section 34; thence South 88°57'08" West, along said Southline, 1117.34 feet, to the Northeast Corner of said Section 4, Township 6 South, Range 28 East; thence South 0°50'59" East, along the East line of said Section 4, 5239.28 feet, to the Southeast corner of said Section 4; thence South 88°23'33" West, along the Southline of said Section 4, 5297.45 feet, to its intersection with the West line of the lands described in Official Records 417, Page 546, of the Public Records of said County; same being the Southeast corner of said Section 5, Township 6 South, Range 28 East; thence North 4°11'05" West, along said West line, 5297.56 feet, to the Southwest corner of Section 33, Township 5 South, Range 28 East; thence North 1°01'40" West, along the West line of said Section 33, 5212.16 feet, to the Northwest corner of Section 33, and the Point of Beginning.

Together with an access easement as recorded in Official Records 1296, Page 1630, and an access easement as recorded in Official Records 1305, Page 1486, of said St. Johns County, Florida.

TO HAVE AND TO HOLD the above-described lands subject to all outstanding easements, reservations and other interests.

BSM APPROVED
BY SK
DATE 1-30-2015

Deed No. 31189

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL "D"

A PORTION OF SECTIONS 23, 24, 25 AND 26, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE EAST LINE OF SAID SECTION 39, SAID TOWNSHIP AND RANGE, WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE SOUTH 77°30'35" EAST, ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 3218.35 FEET TO A POINT OF CURVATURE; THENCE CONTINUE ALONG SAID LIMITED ACCESS RIGHT-OF-WAY LINE, BEING THE ARC OF A CURVE CONCAVE NORTHEASTERLY, AND HAVING A RADIUS OF 33609.60 FEET, THROUGH A CENTRAL ANGLE OF 06°44'12", AN ARC DISTANCE OF 1365.00 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1219, PAGE 1280 OF THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY, SAID POINT ALSO LYING ON THE NORTHERLY LINE OF SECTION 41 OF THE O. W. PERKINS GRANT, SAID TOWNSHIP AND RANGE, SAID CURVE HAVING A CHORD BEARING AND DISTANCE OF SOUTH 30°52'42" EAST, 1364.22 FEET; THENCE SOUTH 71°16'09" WEST, DEPARTING SAID LIMITED ACCESS RIGHT-OF-WAY LINE AND ALONG SAID NORTH LINE OF SECTION 41, 986.91 FEET; THENCE NORTH 25°22'20" WEST, ALONG THE NORTHERLY LINES OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 256, PAGE 273, OFFICIAL RECORDS 401, PAGE 422, AND OFFICIAL RECORDS 1120, PAGE 255, ALL BEING IN THE PUBLIC RECORDS OF SAID ST. JOHNS COUNTY, AND CONTINUING ALONG SAID NORTHERLY LINE OF SECTION 41, 2188.23 FEET TO ITS INTERSECTION WITH THE WESTERLY LINE OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS 1120, PAGE 255, SAID LINE ALSO BEING THE WESTERLY LINE OF SAID SECTION 41; THENCE SOUTH 18°38'24" WEST, ALONG SAID WESTERLY LINE OF SECTION 41, 2401.91 FEET TO ITS INTERSECTION WITH THE NORTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 468, PAGE 539 OF SAID PUBLIC RECORDS, SAID LINE ALSO BEING THE NORTH LINE OF GOVERNMENT LOT 6, OF SAID SECTION 26; THENCE SOUTH 85°44'13" WEST, ALONG SAID NORTH LINE, 527.19 FEET TO ITS INTERSECTION WITH THE NORTHEASTERLY LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 557 OF SAID PUBLIC RECORDS; THENCE NORTH 40°22'51" WEST, ALONG SAID NORTHEASTERLY LINE, 1128.04 FEET TO ITS INTERSECTION WITH THE NORTHWESTERLY LINE OF SAID LANDS AS DESCRIBED IN OFFICIAL RECORDS 417, PAGE 557; THENCE SOUTH 63°45'36" WEST, ALONG SAID NORTHWESTERLY LINE, 474.24 FEET TO ITS INTERSECTION WITH THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO 16, A 200 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 47°54'08" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 1563.25 FEET TO ITS INTERSECTION WITH THE EASTERLY LINE OF SECTION 38 OF THE A. HUERTAS GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST, SAID POINT ALSO LYING ON THE WESTERLY LINE OF SAID SECTION 26; THENCE NORTH 19°24'08" EAST, ALONG SAID LINE, 1032.79 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1484, PAGE 361 OF SAID PUBLIC RECORDS, SAID LINE ALSO BEING THE NORTH LINE OF SAID SECTION 26; THENCE NORTH 88°23'57" EAST, ALONG SAID LINE, 477.88 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SECTION 39 OF THE E. ASTOR GRANT, SAID TOWNSHIP 6 SOUTH, RANGE 28 EAST; THENCE SOUTH

Deed No. 31190
Page 3 of 5

BSM APPROVED
BY *SK*
DATE *1.30.2015*

04°31'15" WEST, ALONG SAID WEST LINE OF SECTION 39, 31.26 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 39; THENCE SOUTH 85°24'09" EAST, ALONG THE SOUTH LINE OF SAID SECTION 39, 2110.17 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 39; THENCE NORTH 04°34'27" EAST, ALONG THE EAST LINE OF SAID SECTION 39, 2167.93 FEET TO THE POINT OF BEGINNING. LESS AND EXCEPT ALL SOVEREIGNTY LANDS.

PARCEL "B"

A PORTION OF SECTION 36 AND SECTION 42 OF THE G.W. PERPALL GRANT, TOWNSHIP 6 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE WEST LINE OF SAID SECTION 42 WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE SOUTH 18°29'55" EAST, ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 2554.80 FEET TO ITS INTERSECTION WITH THE EAST LINE OF GOVERNMENT LOT 2, OF SAID SECTION 36; THENCE SOUTH 90°59'44" EAST, ALONG SAID EAST LINE, 944.75 FEET TO THE SOUTHEAST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89°45'54" WEST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 2, 1334.32 FEET TO THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE SOUTH 80°41'40" EAST, ALONG THE EAST LINE OF LANDS DESCRIBED IN DEED BOOK 243, PAGE 411 OF THE PUBLIC RECORDS OF ST. JOHNS COUNTY, FLORIDA, 483.75 FEET TO THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 16, A 300 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 36°41'04" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 804.78 FEET TO THE NORTH LINE OF SAID LANDS DESCRIBED IN DEED BOOK 243, PAGE 411; THENCE NORTH 79°19'33" EAST, ALONG SAID NORTH LINE, 480.39 FEET TO THE WEST LINE OF AFOREMENTIONED GOVERNMENT LOT 2; THENCE NORTH 80°41'40" WEST, ALONG SAID WEST LINE OF GOVERNMENT LOT 2, 1136.70 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 42; THENCE SOUTH 79°22'37" WEST, ALONG SAID SOUTH LINE, 571.32 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 42; THENCE NORTH 16°33'19" EAST, ALONG THE WEST LINE OF SAID SECTION 42, 1888.62 FEET TO THE POINT OF BEGINNING. LESS AND EXCEPT ALL SOVEREIGNTY LANDS.

PARCEL "C"

A PORTION OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 29 EAST, AND A PORTION OF SECTION 6, TOWNSHIP 7 SOUTH, RANGE 28 EAST, ST. JOHNS COUNTY, FLORIDA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FOR A POINT OF BEGINNING, COMMENCE AT THE INTERSECTION OF THE WESTERLY LINE OF SAID SECTION 31, TOWNSHIP 6 SOUTH, RANGE 29 EAST, WITH THE SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE OF INTERSTATE HIGHWAY NO. 95, A 300 FOOT RIGHT-OF-WAY, AS PRESENTLY ESTABLISHED; THENCE SOUTH 38°29'55" EAST, ALONG SAID SOUTHWESTERLY RIGHT-OF-WAY LINE, 3741.46 FEET; THENCE SOUTH 23°29'55" EAST, CONTINUING ALONG SAID SOUTHWESTERLY LIMITED ACCESS RIGHT-OF-WAY LINE, 153.15 FEET TO ITS INTERSECTION WITH THE SOUTH LINE OF SAID SECTION 31; THENCE SOUTH 89°06'28" WEST, DEPARTING SAID LIMITED ACCESS RIGHT-OF-WAY LINE, AND ALONG SAID SOUTH LINE OF SECTION 31, 1097.48 FEET TO ITS INTERSECTION WITH THE SOUTHEASTERLY LINE OF THOSE LANDS DESCRIBED IN DEED BOOK 206,

Deed No. 31130
Page 4 of 5

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PAGE 589, SAID ST. JOHN'S COUNTY; THENCE SOUTH 33°06'53" EAST, ALONG SAID SOUTHEASTERLY LINE, 99.64 FEET TO THE NORTHEASTERLY RIGHT-OF-WAY LINE OF STATE ROAD NO. 16, A 200 FOOT RIGHT-OF-WAY AS PRESENTLY ESTABLISHED; THENCE NORTH 56°01'25" WEST, ALONG SAID NORTHEASTERLY RIGHT-OF-WAY LINE, 57.10 FEET TO A NORTHWESTERLY LINE OF SAID LANDS DESCRIBED IN DEED BOOK 206, PAGE 589; THENCE NORTH 37°01'53" EAST, ALONG JUST MENTIONED NORTHWESTERLY LINE, 146.63 FEET TO THE EAST LINE OF THOSE LANDS DESCRIBED IN OFFICIAL RECORDS 1073, PAGE 1879 OF THE PUBLIC RECORDS OF SAID ST. JOHN'S COUNTY; THENCE NORTH 01°01'04" WEST, ALONG SAID EASTERLY LINE, 1236.59 FEET TO THE NORTHEAST CORNER OF SAID LANDS DESCRIBED IN OFFICIAL RECORDS 1073, PAGE 1879 OF SAID PUBLIC RECORDS; THENCE SOUTH 89°01'20" WEST, ALONG SAID NORTH LINE, 1311.00 FEET TO THE WEST LINE OF SAID SECTION 31; THENCE NORTH 01°09'42" WEST, ALONG SAID WEST LINE OF SECTION 31, 1285.17 FEET; THENCE NORTH 01°17'47" WEST, CONTINUING ALONG SAID WEST LINE, 688.81 FEET TO THE POINT OF BEGINNING. LESS AND EXCEPT ALL SOVEREIGNTY LANDS

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Appendix B – Land Use Consistency Letter

To be added

Appendix C – Management Advisory Group Summary

On Oct. 15, 2026, the Twelve Mile Swamp Management Advisory Group (MAG) Meeting was convened at District Headquarters from 10:00 to noon. Minutes of the meeting are shown below.

- Introductions
 - MAG Members
 - Mike Lagasse, St. Johns County
 - Brad Foster, Florida Native Plant Society
 - Imari Klein, Girls Who Hike
 - Lia Sansom, GTMNERR
 - Justin Ellenberger, Florida Fish and Wildlife Conservation Commission
 - Mark Werley, Florida State Parks
 - Amy Koch, Audubon Society
 - Ben Williams, private landowner
 - Suzanne Lyda, private landowner
 - Cori Hermle, SJRWMD basin manager
 - Clint Wright, cycling groups
 - Ann Taylor, Commissioner, St. Johns County
 - District staff:
 - Chris Kinslow, host and land resource specialist, SJRWMD Bureau of Land Resources (BLR)
 - Brian Emanuel, chief, SJRWMD BLR
 - Jeremy Olson, program manager, SJRWMD BLR
 - Teresa Monson, land resources coordinator, SJRWMD BLR
 - Patrick McCord, land resources specialist, SJRWMD BLR
 - Doug Conkey, intergovernmental coordinator, SJRWMD
 - Lissa Strohecker, public communications coordinator, SJRWMD
- Volunteer for Public Meeting introduction: Mike Lagasse or Commissioner Ann Taylor, St. Johns County
- Presentation
- Roundtable discussion:
 - Mike Lagasse: Bald eagle data – how do you monitor, how often and by whom? St. Johns County has a program.

- Kinslow: We use Eagle Watch. Our database links to their database.
- Brad Foster: Would like to know the wildfire sites have responded.
 - Kinslow: Hasn't responded significantly.
- Imani Klein: How far would the hike-in campsites be from the road? Figure 3 SR 313 right-of-way could impact one of the proposed sites.
 - Kinslow: Maybe. There are other potential sites. Almost two miles to the semi-shaded sand pine stand from the parking area. The other is about 1.5 miles from the parking area.
- Lia Sansom: Need way to coordinate on what is happening regionally/locally. Would like to do a better job of pulling things together geographically.
- Justin Ellenberger: Public use – excited to reestablish this as a public area.
- Jeff Darr: Regarding contracting out cruising timber – has all merchantable pine been cut?
 - Kinslow: Showed mature stands on the map.
 - Darr: Are you looking at going in 7–10 years after second thinning?
 - Kinslow: Yes.
 - Darr: Mills are not looking for the big trees now, and FFS is looking at stand rotation and mills.
- Mark Werley: Arthropod control – letter from Anastasia Mosquito Control, recommend control plan to avoid negative consequences. State Parks allows drone use certain times of the year for aerial spraying.
 - Kinslow: Reached out to mosquito control already, will develop a plan.
- Amy Koch: Inventory species list. Do you need to budget for that?
 - Kinslow: Staff time.
- Ben Williams: When looking at proposed CR 313 extension, if/when built, what contingency is there for management?
 - Kinslow: Access easements are contingent upon access to the severed parcels for land management. District is compensated when FDOT takes land, which helps pay for management. It helps but doesn't replace necessary funding for management activities.
 - Williams: The land management plan may not be the right place for this but there needs to be discussion with St. Johns County about eliminating CR 313 extension.
- Suzanne Lyda: Multi-use trails – allow e-bikes?
 - Patrick McCord: Currently allowed because of lack of specificity in our rules. Intent is to allow Class 1 e-bikes; Class 2 and 3 would be categorized as motor vehicles.
 - Lyda: Consider separating horseback riding trails from e-bike trails because of safety concerns.
- Cori Hermle: Wasn't wood stork de-listed this year? Suggest changing map color for wood stork.
 - Kinslow: Yes but still tracked.

- Clint Wright: Excited for cycling opportunities.
- Ann Taylor: Financial slide (Slide 22) – if Amendment 3 passes, what is the backup plan for funding?
 - Kinslow: Funding comes from ad valorem and Land Acquisition Trust Fund. Also generate funds through timber sales, cattle leases, cell towers. There are mechanisms within our statutory authority to stay solvent; however, it will be challenging and not everything will get done. Still many questions to be answered, should it pass.
- Mike Lagasse: Section 2.5 - reforestation is not anticipated but plan contradicts itself.
- Brad Foster: FNPS would love to participate in bioblitz. Also, hydrologic restoration doesn't always have to be big jobs; small opportunities exist such as cutting a section out of a tram road.
- Imani Klein: Hunting – how will FWC set the days?
 - Ellenberger: FWC will work with the District to develop a plan, followed by rulemaking.
 - Kinslow: Likely a quota system and possibly staggered in more than one WMA; dates will be posted at entrances.
- Lia Sansom: Excited to hear about overlay of basins. Recommend having interpretive signage onsite.
- Justin Ellenberger: Public use – Parking areas. Might be additional areas for entrances. Anticipate a lot of public use. Suggested additional location (reference Slide 10). Change plan language to state “up to four...”
- Jeff Darr: Prescribed burning. Noted difficulty of burning. Will you have to burn smaller blocks?
 - Kinslow: Will just have to be very choosy about natural communities. Utilize fire surrogates, such as forestry mowing. Doesn't lend itself to roller chopping. Limited herbicide.
- Mark Werley: Offered assistance with prescribed fire.
- Amy Koch: Encouraged adding more parking and a few shorter trails. Provide more access to elderly or infirm, not everyone needs a lengthy six-mile trail.
- Ben Williams: Cattle leases with the cows being biological brush management should be included in the management plan. Consider virtual fencing and rotation.
 - Kinslow: Leases are included in the plan, language is non-specific.
- Suzanne Lyda: Complimented on prescribed burns. Good job working with the Black Creek community to spread the word. Hope you do it also at Twelve Mile.
- Cori Hermle: Seconded additional parking needs
- Clint Wright: Thinking about fire management for whole area beyond District land and a comprehensive plan partnering with other agencies and NGOs. District does great work with fire but neighbors don't always manage their fuels. Also, easement to north on U.S. 1 could give additional parking.

- Kinslow: District doesn't own the easement and location has had trespass issues.
- Ann Taylor: International Golf Parkway – Traffic is terrible on IGP, we need another solution to U.S. 1. Does the easement/CR 313 extension go through Twelve Mile Swamp CA?
 - Kinslow: Yes, it severs the eastern portion of the property and would damage some pretty remarkable ecosystems.
- Imani Klein: Amendment 3 effects – we have a lot of volunteers that can help fill the gap. Also volunteers with Florida Trail Association. Agree with other MAG members on more parking and trails.
- Justin Ellenberger: Offered assistance generally.
- Mark Werley: Trails – are any existing cultural resources near roads/trails?
 - Kinslow: They don't interact with the roads.
- Amy Koch: Land disturbance caused by CR 313 – what are the issues?
 - Kinslow: Sand dunes, geological formations. There is a recorded easement on the property for the proposed road.
 - Sansom: Added information about the uniqueness.
 - Doug Conkey: Suggested directly asking the District secretary of the North Florida Transportation Planning Organization.
 - Koch: Also offered assistance with bird surveys.
- Ben Williams: Suggested that the county consider asking DOT to deed the easement back over to the District. Also asked if there is a piece on the southeast side that was up for surplus at one point.
 - Kinslow: Severed parcels could be surplus but there is no current plan or desire to do so.
- Suzanne Lyda: Canoe/kayak launch – hike in or drive in? Can it be ADA accessible?
 - Kinslow: End of Woodlawn, could pull the kayak/canoe to the borrow pit. May consider day-use permit process.
 - Patrick McCord: Mentioned the steepness and limited parking but looking at options.
- Cori Hermle: What would the process be to readdress surplus the easement?
 - Kinslow: District co-owns with TIITF; would have to go through extra layers of approval to surplus. No surplus is in the plan.
 - Hermle: Also, culverts and low water crossings, is there a priority list?
 - Kinslow: Access and hydrologic flow are the drivers.
- Clint Wright: Amendment 3 – highly recommend looking for external partners, such as the mountain bike association, which has funding from Trek that exceeds the amount shown on the budget slide. May help with maintenance mowing, etc.
- Ann Taylor: I wouldn't be worried about CR 313. St. Johns County has no money for it. Widening SR 16 to four lanes for five miles is \$180M-\$200M. The Legislature gave \$1 million. Serves on county LAMP advisory committee, and the No. 1 complaint is that people are tired of St. Johns County being bulldozed.

- Justin Ellenberger: Bedding in uplands?
 - Kinslow: Letting it erode away.
- Ben Williams: There's a lot of habitat created by the ditches. Cutting, not removing, would be best.
- Cori: FPAN – spelling of archeology

Appendix D – Public Meeting Summary



Appendix E - Soil Descriptions

The following soil series descriptions correspond with soil names found in Figures 9 and 10 and are taken directly from the USDA-NRCS using the online query tool.

Adamsville - consists of very deep, somewhat poorly drained, rapidly permeable soils on broad flats, low knolls, and lower side slopes. They formed in thick sandy marine or eolian sediments in central and southern Florida.

Natural vegetation consists of pines, laurel, and water oaks with a ground cover of saw palmetto, pineland threeawn, indiagrass, bluestem grasses, and several low panicums.

Astatula - consists of very deep, excessively drained, very rapidly permeable soils on uplands of the South Central Florida Ridge, Southern Florida Flatwoods, and a few areas of the Eastern Gulf Coast Flatwoods.

Natural vegetation consists of bluejack, blackjack, turkey oaks, longleaf pine, sand pine, and an understory of rosemary, pineland threeawn, bluestem, paspalum, lopsided indiagrass, and panicum.

Bakersville - consists of very deep, very poorly drained, moderately permeable soils in depressional areas of the flatwoods of peninsular Florida. They formed in sandy and loamy marine sediments.

Most areas are used for wildlife habitat. A few areas have been drained and used for grazing. Native vegetation consists of cypress, sweetgum, red maple, white bay, and a few pond pines. The understory vegetation is mainly waxmyrtle, greenbriar, bracken fern, and cinnamon fern. Maidencane, switchcane, and various sedges and rushes are in some places.

Bluff - consists of very deep, very poorly drained, slowly permeable soils in marshes and on broad low terraces along rivers. They formed in thick beds of alkaline loamy marine sediments.

These soils are primarily used for woodland or wildlife habitat. The native vegetation consists of swamp white oak, tupelo gum, swamp maple, cypress, and palm, with scattered loblolly pine some areas. The understory vegetation consists of several bluestem species, hairy panicum, longleaf uniola, vines, and forbs.

Cassia - consists of very deep, somewhat poorly drained soils that formed in sandy marine deposits. Cassia soils are on low ridges and knolls on scrubby flatwoods.

Under natural conditions Cassia soils are used for water quality and wildlife habitat, some areas are used for range. Potential native vegetation consists of scattered slash pine, longleaf pine, and saw palmetto. The understory vegetation consists of splitbeard bluestem, broomsedge bluestem, creeping bluestem, low panicum, lopsided indiagrass, pineland threeawn, paspalum, switchgrass, runner oak, and saw palmetto.

EauGallie - consists of very deep, very poorly or poorly drained, slowly permeable soils in flats, sloughs and depressional areas in the Southern Florida Flatwoods and to a lesser extent in the Atlantic Coast Flatwoods, the South Central Florida Ridge, and the Southern Florida Lowlands. They formed in sandy and loamy marine sediments in Peninsula Florida.

The natural vegetation consists of longleaf pine, South Florida slash pine, slash pine, fetterbush. The understory vegetation includes running oak, saw palmetto, inkberry, gallberry, wax myrtle, southern bayberry and pineland threeawn.

Ellzey - consists of poorly drained, moderately permeable soils that formed in thick deposits of sandy marine sediments. These soils are on broad cultivated areas of the flatwoods in the Coastal Plain of Florida.

Native vegetation consists of slash pine, longleaf pine, inkberry, waxmyrtle, few sawpalmetto, and few small cypress. Native grasses include pineland threeawn, chalky bluestem, and maidencane.

Floridana - consists of very deep, very poorly drained, slowly to very slowly permeable soils on low broad flats, flood plains, and in depressional areas. They formed in thick beds of sandy and loamy marine sediments.

Natural vegetation consists of sand cordgrass, cabbage palmetto, myrtle, and pineland threeawn. In depressional areas, most of the soil has a sparse to dense cover of cypress. In flood plains, the vegetation is mostly sweetgum, blackgum, red maple, and cypress.

Holopaw - consists of deep and very deep, poorly and very poorly drained soil that formed in sandy and loamy marine sediments. Holopaw soils are on nearly level low lying flats, poorly defined drainageways and depressional areas.

Native vegetation is scattered slash and pond pine, cabbage palm and sawpalmettos, scattered cypress, myrtle, sand cordgrass, gulf muhly, chalky bluestem, plumgrass, paspalum, blue maidencane, and pineland threeawn.

Immokalee - consists of very deep, very poorly and poorly drained soils that formed in sandy marine sediments. Immokalee soils are on flatwoods and low broad flats on marine terraces.

Potential native vegetation consists of longleaf and slash pine with an undergrowth of sawpalmetto, gallberry, waxmyrtle and pineland threeawn. In depressions, water-tolerant plants such as cypress, loblollybay gorodonia, red maple, sweetbay, maidencane, blue maidencane, chalky bluestem, sand cordgrass and bluejoint panicum are more common.

Jonathan - consists of very deep, moderately well to somewhat excessively drained, very slowly or slowly permeable soils on slightly elevated knolls and ridges in flatwoods areas of the Lower Coastal Plains of Florida. They formed in thick beds of sandy marine sediments.

The native vegetation consists of slash pine, sawpalmetto, sand live oak, running oak, gallberry, fetterbush, pricklypear, and pineland threeawn. Sand pines are common in some areas..

Myakka - consists of very deep, very poorly or poorly drained, moderately rapid or moderately permeable soils that occur primarily in mesic flatwoods of peninsular Florida. They formed in sandy marine deposits.

Native vegetation includes longleaf and slash pine with an undergrowth of saw palmetto, running oak, inkberry, wax myrtle, huckleberry, chalky bluestem, pineland threeawn, and scattered fetterbush.

Ona - consists of poorly drained, moderately permeable soils that formed in thick sandy marine sediments. They are in the flatwood areas of central and southern Florida.

Natural vegetation is slash pine and longleaf pine, gallberry, widely spaced sawpalmettos, huckleberry, and pineland threeawn. A small part remains in forest and range.

Orsino - consists of very deep, moderately well drained, very rapidly permeable soils that formed in thick beds of sandy marine or aeolian deposits. They are on moderately high ridges in the Coastal Plain.

Native vegetation consists primarily of scrub vegetation with sand live oak, Chapman oak, myrtle oak, and scrub hickory. Scattered sand, slash, and longleaf pines and scattered bluejack, turkey, and post oak are found with a sparse understory.

Paola - consists of very deep, excessively drained soils that formed in sandy marine sediments. Paola soils are on hills, ridges, and flats on marine terraces.

Potential native vegetation consists of sand pine, slash pine, longleaf pine, scrub live oak, scattered turkey oak, and bluejack oak. The undergrowth consists of cacti, mosses, lichens, creeping dodder, rosemary, and scattered saw palmetto.

Parkwood - consists of very deep, poorly drained, moderately slowly permeable soils in small hammock areas that border streams, poorly defined drainage ways, and depressional areas. They formed in thick beds of unconsolidated sand.

The dominant vegetation consists of cabbage palm, live oak, water oak, red cedar, magnolia, and an undergrowth of shrubs, vines, grasses, and saw palmetto.

Pomello - consists of very deep, moderately well to somewhat poorly drained soils that formed in sandy marine sediments. Pomello soils are on ridges, hills, and knolls in the flatwoods on marine terraces.

Potential native vegetation consists of scrub oak, dwarf live oak, sawpalmetto, longleaf pine, slash pine, and pine land threeawn.

Pomona - consists of very deep, poorly and very poorly drained soils that formed in sandy and loamy marine sediments. Pomona soils are on flats and flatwoods on marine terraces.

Potential native vegetation consists of slash pine, longleaf pine, and south Florida slash pine with an understory of sawpalmetto, waxmyrtle, gallberry, creeping bluestem, chalky bluestem, indiangrass, and pineland threeawn.

Pottsburg - consists of very deep, somewhat poorly and poorly drained soils that formed in marine sediments.

Dominant vegetation includes slash and longleaf pine with an understory of saw palmetto, gallberry, pineland threeawn, broomsedge bluestem, lopsided indiangrass, chalky bluestem, wild grape, and other perennial grasses.

Riviera - consists of very deep, poorly drained, very slowly permeable soils on broad, low flats, flatwoods and in depressions in the Southern Flatwoods and the Southern Florida Lowlands. They formed in stratified sandy and loamy marine sediments.

Native vegetation consists of slash pine, cabbage palm, sawpalmetto, scattered cypress, maidencane, and pineland threeawn.

Samsula - consists of very deep, very poorly drained, rapidly permeable soils that formed in moderately thick beds of hydrophytic plant remains and are underlain by sandy marine sediments. These soils are in swamps, poorly defined drainageways and flood plains.

Most areas are in native vegetation and used for water storage and as wildlife habitat. Natural vegetation is loblolly bay with scattered cypress, maple, gum, and pine trees with a ground cover of greenbriers, ferns, and other aquatic plants.

Smyrna - consists of very deep, poorly to very poorly drained soils formed in thick deposits of sandy marine materials.

Natural vegetation consists of longleaf and slash pines with an undergrowth of saw palmetto, runner oak, gallberry, wax myrtle, and pineland threeawn. Most areas are used for forest and range.

Sparr - consists of very deep, somewhat poorly drained, moderately slowly to slowly permeable soils on uplands of the coastal plain. They formed in thick beds of sandy and loamy marine sediments.

Native vegetation consists of longleaf pine, slash pine, loblolly pine, magnolia, dogwood, hickory, and live oak, laurel oak, and water oak.

St. Johns - consists of very deep, very poorly or poorly drained, moderately permeable soils on broad flats and depressional areas of the lower Coastal Plain. They formed in sandy marine sediments.

Principal vegetation of the forested areas is longleaf pine, slash pine, and pond pine with an undergrowth of saw palmetto, gallberry, wax myrtle, huckleberry, and pineland threeawn

Tavares - consists of very deep, moderately well drained soils that formed in sandy marine or eolian deposits. Tavares soils are on hills, ridges and knolls of the lower Coastal Plain.

Natural vegetation consists of slash pine, longleaf pine, a few scattered blackjack oak, turkey oak, and post oak with an undercover of pineland threeawn. In some places natural vegetation consists of turkey oak, blackjack oak, and post oak with scattered slash pine and longleaf pine.

Tocoi - consists of very deep, poorly drained, moderately rapidly permeable soils on broad flats in the lower Coastal Plain. They formed in thick beds of sandy marine sediments.

Native vegetation consists of slash pine, longleaf pine, waxmyrtle, sawpalmetto, greenbrier, inkberry, bluestems, and pineland threeawn.

Tomoka - consists of deep, very poorly drained, moderately permeable soils that formed in decomposed dark reddish brown and black organic material about 27 inches thick over sand and loamy mineral material.

Wesconnett - consists of very deep, very poorly drained sandy soils that formed in sandy deposits on marine terraces. These soils are in depressions and on flood plains.

Natural vegetation is baldcypress, pond cypress, red maple, sweetbay magnolia, sweetgum, cabbage palm, holly, and water oak, with an understory of wax myrtle and sparse amounts of creeping bluestem, hairy bluestem, and toothache grass.

Winder - consists of very deep, poorly drained, slowly to very slowly permeable soils on broad, low flats and depressional areas. They formed in loamy marine sediments on the Lower Coastal Plain.

Natural vegetation consists of cordgrass, maidencane, cabbage palmetto, saw palmetto, and pineland threeawn.

Zolfo - consists of very deep, somewhat poorly drained soils that formed in sandy marine sediments. Zolfo soils are on ridges, rises, and knolls on adjacent flatwoods on marine terraces.

Potential native vegetation consists of scattered turkey, laurel, or water oaks; long leaf or slash pine with an undercover of pineland threeawn, bluestem, lopsided indiagrass, gallberry, native weeds and saw palmetto.

Appendix F – Twelve Mile Swamp Conservation Area Species List

Plants

Scientific name	Common name	Status
<i>Acer rubrum</i>	red maple	
<i>Aletris obovata</i>	white colic-root	
<i>Amphicarpum muehlenbergianum</i>	blue maidencane	
<i>Anchistea virginica</i>	Virginia chain fern	
<i>Andropogon</i> sp.	bluestem	
<i>Andropogon cretaceus</i>	purple bluestem	
<i>Andropogon virginicus</i>	broomsedge bluestem	
<i>Arisaema acuminatum</i>	Florida jack-in-the-pulpit	
<i>Aristida beyrichiana</i>	Southern wiregrass	
<i>Aristida spiciformis</i> var. <i>spiciformis</i>	bottlebrush threeawn	
<i>Aronia arbutifolia</i>	red chokeberry	
<i>Asclepias amplexicaulis</i>	clasping milkweed	
<i>Asclepias cinerea</i>	Carolina milkweed	
<i>Asclepias humistrata</i>	sandhill milkweed	
<i>Asclepias lanceolata</i>	fewflower milkweed	
<i>Asimina obovata</i>	bigflower pawpaw	
<i>Asimina pygmaea</i>	dwarf pawpaw	
<i>Baccharis halimifolia</i>	groundsel tree	
<i>Bacopa caroliniana</i>	lemon bacopa	
<i>Balduina angustifolia</i>	coastalplain honeycomb-head	
<i>Bejaria racemosa</i>	tarflower	
<i>Bulbostylis ciliatifolia</i>	capillary hairsedge	
<i>Callicarpa americana</i>	American beautyberry	
<i>Campsis radicans</i>	trumpet creeper	
<i>Carex</i> sp.	sedge	
<i>Carphephorus corymbosus</i>	coastalplain chaffhead	
<i>Carpinus caroliniana</i> var. <i>caroliniana</i>	American hornbeam	
<i>Carya aquatica</i>	water hickory	
<i>Celtis laevigata</i>	sugarberry	
<i>Centella erecta</i>	spadeleaf	
<i>Centrosema virginianum</i>	butterfly pea	
<i>Cephalanthus occidentalis</i>	common buttonbush	
<i>Ceratiola ericoides</i>	Florida rosemary	

<i>Chasmanthium</i> sp.	woodoats	
<i>Cladium jamaicense</i>	sawgrass	
<i>Cnidoscolus stimulosus</i>	tread softly	
<i>Crocanthemum carolinianum</i>	Carolina frostweed	
<i>Crocanthemum corymbosum</i>	pinebarren frostweed	
<i>Croton michauxii</i>	Michaux's croton	
<i>Cyperus</i> sp.	flatsedge	
<i>Cyrilla racemiflora</i>	titi	
<i>Dichantherium</i> sp.	witchgrass	
<i>Dichantherium scabriusculum</i>	woolly witchgrass	
<i>Diodia virginiana</i>	Virginia buttonweed	
<i>Diospyros virginiana</i>	common persimmon	
<i>Erechtites hieraciifolius</i>	fireweed	
<i>Eriocaulon decangulare</i>	tenangle pipewort	
<i>Erianthus giganteus</i>	sugarcane plumegrass	
<i>Erigeron canadensis</i>	Canadian horseweed	
<i>Eryngium aromaticum</i>	fragrant eryngo	
<i>Eubotrys racemosus</i>	swamp doghobble	
<i>Eupatorium capillifolium</i>	dogfennel	
<i>Eupatorium compositifolium</i>	yankeeweed	
<i>Eupatorium mohrii</i>	Mohr's thoroughwort	
<i>Eupatorium rotundifolium</i>	roundleaf thoroughwort	
<i>Euthamia caroliniana</i>	slender flattop goldenrod	
<i>Fraxinus</i> sp.	ash	
<i>Fraxinus caroliniana</i>	Carolina ash	
<i>Galactia elliottii</i>	Elliott's milkpea	
<i>Gaylussacia dumosa</i>	dwarf huckleberry	
<i>Gaylussacia tomentosa</i>	blue huckleberry	
<i>Gonolobus suberosus</i> var. <i>suberosus</i>	angle pod	ST
<i>Hydrangea barbara</i>	climbing hydrangea	
<i>Hydrocotyle umbellata</i>	manyflower marshpennywort	
<i>Hymenachne hemitoma</i>	maidencane	
<i>Hypericum brachyphyllum</i>	coastalplain St. John's wort	
<i>Hypericum cistifolium</i>	roundpod St. John's wort	
<i>Hypericum myrtifolium</i>	myrtleleaf St. John's wort	
<i>Hypericum tenuifolium</i>	Atlantic St. John's wort	
<i>Hypericum tetrapetalum</i>	fourpetal St. John's wort	

<i>Hyptis alata</i>	clustered bushmint	
<i>Ilex cassine</i>	dahoon	
<i>Ilex myrtifolia</i>	myrtle-leaved holly	
<i>Iva microcephala</i>	Piedmont marshelder	
<i>Juniperus virginiana</i>	Eastern red cedar	
<i>Juncus</i> sp.	rush	
<i>Juncus marginatus</i>	grassleaf rush	
<i>Juncus scirpoides</i>	needlepod rush	
<i>Lachnanthes caroliniana</i>	Carolina redroot	
<i>Lachnocaulon anceps</i>	whitehead bogbutton	
<i>Lechea torreyi</i>	sandhill pinweed	
<i>Liatris</i> sp.	blazing star	
<i>Liatris tenuifolia</i>	shortleaf gayfeather	
<i>Liquidambar styraciflua</i>	sweetgum	
<i>Liriodendron tulipifera</i> var. <i>tulipifera</i>	tuliptree	
<i>Lorinseria areolata</i>	netted chain fern	
<i>Ludwigia</i> sp.	primrosewillow	
<i>Lupinus</i> sp.	lupine	
<i>Lyonia ferruginea</i>	rusty staggerbush	
<i>Lyonia fruticosa</i>	coastalplain staggerbush	
<i>Lyonia ligustrina</i> var. <i>foliosiflora</i>	maleberry	
<i>Lyonia lucida</i>	fetterbush	
<i>Magnolia grandiflora</i>	Southern magnolia	
<i>Magnolia virginiana</i> var. <i>australis</i>	sweetbay	
<i>Mimosa microphylla</i>	sensitive briar	
<i>Mitchella repens</i>	partridgeberry	
<i>Mitreola</i> sp.	hornpod	
<i>Morella cerifera</i>	Southern bayberry	
<i>Morella pumila</i>	dwarf bayberry	
<i>Morus rubra</i>	red mulberry	
<i>Muscadinia rotundifolia</i>	muscadine	
<i>Nelumbo lutea</i>	American lotus	
<i>Nuphar advena</i>	broadleaf pondlily	
<i>Nyssa biflora</i>	swamp tupelo	
<i>Nymphaea odorata</i> ssp. <i>odorata</i>	white waterlily	
<i>Opuntia mesacantha</i>	pricklypear	
<i>Orthochilus ecristatus</i>	giant orchid	ST

<i>Osmunda spectabilis</i>	royal fern	CE
<i>Osmundastrum cinnamomeum</i>	cinnamon fern	CE
<i>Paronychia</i> sp.	nailwort	
<i>Parthenocissus quinquefolia</i>	Virginia creeper	
<i>Paspalum</i> sp.	crowngrass	
<i>Paspalum setaceum</i>	thin paspalum	
<i>Piloblephis rigida</i>	wild pennyroyal	
<i>Pinus clausa</i>	sand pine	
<i>Pinus elliotii</i>	slash pine	
<i>Pinus palustris</i>	longleaf pine	
<i>Pinus taeda</i>	loblolly pine	
<i>Piriqueta caroliniana</i>	pitted stripeseed	
<i>Pityopsis</i> sp.	silkgrass	
<i>Pityopsis graminifolia</i>	narrowleaf silkgrass	
<i>Pleopeltis michauxiana</i>	resurrection fern	
<i>Pluchea baccharis</i>	rosy camphorweed	
<i>Pluchea camphorata</i>	camphorweed	
<i>Pluchea foetida</i>	stinking camphorweed	
<i>Polygala nana</i>	candyroot	
<i>Polygonella polygama</i>	October flower	
<i>Polypremum procumbens</i>	rustweed	
<i>Pontederia cordata</i>	pickerelweed	
<i>Proserpinaca pectinata</i>	combleaf mermaidweed	
<i>Pteridium pseudocaudatum</i>	tailed bracken	
<i>Pterocaulon pycnostachyum</i>	blackroot	
<i>Quercus chapmanii</i>	Chapman's oak	
<i>Quercus geminata</i>	sand live oak	
<i>Quercus hemisphaerica</i>	laurel oak	
<i>Quercus laurifolia</i>	swamp laurel oak	
<i>Quercus minima</i>	dwarf live oak	
<i>Quercus myrtifolia</i>	myrtle oak	
<i>Quercus nigra</i>	water oak	
<i>Quercus virginiana</i>	live oak	
<i>Rhapidophyllum hystrix</i>	needle palm	CE
<i>Rhexia mariana</i>	pale meadowbeauty	
<i>Rhus copallinum</i> var. <i>copallinum</i>	winged sumac	
<i>Rhynchospora</i> sp.	beaksedge	

<i>Rhynchospora fascicularis</i>	fascicled beaksedge	
<i>Rhynchospora megalocarpa</i>	sandyfield beaksedge	
<i>Rhynchospora miliacea</i>	millet beaksedge	
<i>Rhynchospora nitens</i>	shortbeak beaksedge	
<i>Rubus cuneifolius</i>	sand blackberry	
<i>Sabal minor</i>	bluestem palmetto	
<i>Sabal palmetto</i>	cabbage palm	
<i>Sacciolepis striata</i>	American cupscale	
<i>Salix caroliniana</i>	coastalplain willow	
<i>Saururus cernuus</i>	lizard's tail	
<i>Scirpus cyperinus</i>	woolgrass	
<i>Scleria</i> sp.	nutrush	
<i>Scleria triglomerata</i>	whip nutrush	
<i>Scoparia dulcis</i>	licoriceweed	
<i>Serenoa repens</i>	saw palmetto	CE
<i>Sericocarpus tortifolius</i>	whitetop aster	
<i>Sesbania herbacea</i>	danglepod	
<i>Smilax auriculata</i>	earleaf greenbriar	
<i>Smilax bona-nox</i>	saw greenbriar	
<i>Smilax glauca</i>	cat greenbriar	
<i>Smilax hispida</i>	bristly greenbriar	
<i>Smilax laurifolia</i>	laurel greenbriar	
<i>Solidago</i> sp.	goldenrod	
<i>Solidago odora</i>	sweet goldenrod	
<i>Sophronanthe hispida</i>	rough hedgehyssop	
<i>Spartina</i> sp.	cordgrass	
<i>Stipulicida setacea</i>	pineland scalypink	
<i>Styrax americanus</i>	American snowbell	
<i>Tamala palustris</i>	swamp bay	
<i>Taxodium ascendens</i>	pond cypress	
<i>Taxodium distichum</i>	bald cypress	
<i>Tilia americana</i> var. <i>caroliniana</i>	Carolina basswood	
<i>Tillandsia bartramii</i>	Bartram's air-plant	ST
<i>Tillandsia recurvata</i>	ballmoss	
<i>Tillandsia usneoides</i>	Spanish moss	
<i>Toxicodendron radicans</i> var. <i>radicans</i>	Eastern poison ivy	
<i>Triadica sebifera</i>	Chinese tallow tree	Invasive

<i>Trilisa odoratissima</i>	vanillaleaf	
<i>Ulmus alata</i>	winged elm	
<i>Ulmus americana</i>	American elm	
<i>Vaccinium myrsinites</i>	shiny blueberry	
<i>Vaccinium stamineum</i>	deerberry	
<i>Xyris ambigua</i>	coastalplain yellow-eyed grass	
<i>Xyris elliotii</i>	Elliott's yellow-eyed grass	

Birds

Scientific name	Common Name	Status
<i>Agelaius phoeniceus</i>	Red-winged Blackbird	
<i>Aix sponsa</i>	Wood Duck	
<i>Antrostomus carolinensis</i>	Chuck-will's-widow	
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	
<i>Ardea alba</i>	Great Egret	
<i>Ardea herodias</i>	Great Blue Heron	
<i>Baeolophus bicolor</i>	Tufted Titmouse	
<i>Bombycilla cedrorum</i>	Cedar Waxwing	
<i>Bubo virginianus</i>	Great Horned Owl	
<i>Buteo brachyurus</i>	Short-tailed Hawk	G4G5/S1
<i>Buteo jamaicensis</i>	Red-tailed Hawk	
<i>Buteo lineatus</i>	Red-shouldered Hawk	
<i>Cardinalis cardinalis</i>	Northern Cardinal	
<i>Cathartes aura</i>	Turkey Vulture	
<i>Catharus guttatus</i>	Hermit Thrush	
<i>Chaetura pelagica</i>	Chimney Swift	
<i>Charadrius vociferus</i>	Killdeer	
<i>Chordeiles minor</i>	Common Nighthawk	
<i>Cistothorus stellaris</i>	Sedge Wren	
<i>Coccyzus americanus</i>	Yellow-billed Cuckoo	
<i>Colaptes auratus</i>	Northern Flicker	
<i>Columbina passerina</i>	Common Ground Dove	
<i>Contopus virens</i>	Eastern Wood-Pewee	
<i>Coragyps atratus</i>	Black Vulture	
<i>Corthylio calendula</i>	Ruby-crowned Kinglet	
<i>Corvus brachyrhynchos</i>	American Crow	
<i>Corvus ossifragus</i>	Fish Crow	
<i>Cyanocitta cristata</i>	Blue Jay	
<i>Dryobates pubescens</i>	Downy Woodpecker	
<i>Dryocopus pileatus</i>	Pileated Woodpecker	

<i>Dumetella carolinensis</i>	Gray Catbird	
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5/S2
<i>Empidonax virescens</i>	Acadian Flycatcher	
<i>Eudocimus albus</i>	White Ibis	G5/S4
<i>Euphagus carolinus</i>	Rusty Blackbird	
<i>Falco columbarius</i>	Merlin	G5/S2
<i>Falco sparverius</i>	American Kestrel	G5T4/S3
<i>Geothlypis trichas</i>	Common Yellowthroat	
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5/S3
<i>Hirundo rustica</i>	Barn Swallow	
<i>Leiothlypis celata</i>	Orange-crowned Warbler	
<i>Leucophaeus atricilla</i>	Laughing Gull	
<i>Lophodytes cucullatus</i>	Hooded Merganser	
<i>Megaceryle alcyon</i>	Belted Kingfisher	
<i>Megascops asio</i>	Eastern Screech-Owl	
<i>Melanerpes carolinus</i>	Red-bellied Woodpecker	
<i>Meleagris gallopavo</i>	Wild Turkey	
<i>Melospiza georgiana</i>	Swamp Sparrow	
<i>Melospiza melodia</i>	Song Sparrow	
<i>Mimus polyglottos</i>	Northern Mockingbird	
<i>Mniotilta varia</i>	Black-and-white Warbler	
<i>Molothrus ater</i>	Brown-headed Cowbird	
<i>Mycteria americana</i>	Wood Stork	G4/S2
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	
<i>Nannopterum auritum</i>	Double-crested Cormorant	
<i>Nyctanassa violacea</i>	Yellow-crowned Night Heron	G5/S3
<i>Pandion haliaetus</i>	Osprey	G5/S3S4
<i>Passerina cyanea</i>	Indigo Bunting	
<i>Pipilo erythrophthalmus</i>	Eastern Towhee	
<i>Piranga olivacea</i>	Scarlet Tanager	
<i>Piranga rubra</i>	Summer Tanager	
<i>Poecile carolinensis</i>	Carolina Chickadee	
<i>Poliophtila caerulea</i>	Blue-gray Gnatcatcher	
<i>Progne subis</i>	Purple Martin	
<i>Quiscalus quiscula</i>	Common Grackle	
<i>Regulus satrapa</i>	Golden-crowned Kinglet	
<i>Sayornis phoebe</i>	Eastern Phoebe	
<i>Setophaga americana</i>	Northern Parula	
<i>Setophaga citrina</i>	Hooded Warbler	
<i>Setophaga coronata</i>	Yellow-rumped Warbler	
<i>Setophaga discolor</i>	Prairie Warbler	

<i>Setophaga dominica</i>	Yellow-throated Warbler	
<i>Setophaga palmarum</i>	Palm Warbler	
<i>Setophaga pinus</i>	Pine Warbler	
<i>Setophaga ruticilla</i>	American Redstart	
<i>Sialia sialis</i>	Eastern Bluebird	
<i>Sitta pusilla</i>	Brown-headed Nuthatch	
<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	
<i>Spinus tristis</i>	American Goldfinch	
<i>Strix varia</i>	Barred Owl	
<i>Sturnella magna</i>	Eastern Meadowlark	
<i>Sturnus vulgaris</i>	European Starling	
<i>Tachycineta bicolor</i>	Tree Swallow	
<i>Thalasseus maximus</i>	Royal Tern	
<i>Thryothorus ludovicianus</i>	Carolina Wren	
<i>Toxostoma rufum</i>	Brown Thrasher	
<i>Troglodytes aedon</i>	Northern House Wren	
<i>Turdus migratorius</i>	American Robin	
<i>Vireo flavifrons</i>	Yellow-throated Vireo	
<i>Vireo griseus</i>	White-eyed Vireo	
<i>Vireo olivaceus</i>	Red-eyed Vireo	
<i>Vireo solitarius</i>	Blue-headed Vireo	
<i>Zenaida macroura</i>	Mourning Dove	

Mammals

Scientific name	Common Name	Status
<i>Canis latrans</i>	Coyote	
<i>Dasypus novemcinctus</i>	Nine-banded armadillo	
<i>Dedelphis virginiana</i>	Opossum	
<i>Lynx rufus</i>	Bobcat	
<i>Odocoileus virginianus</i>	White-tailed deer	
<i>Procyon lotor</i>	Raccoon	
<i>Sciurus carolinensis</i>	Eastern gray squirrel	
<i>Sus scrofa</i>	Feral hog	
<i>Sylvilagus floridanus</i>	Eastern cottontail rabbit	

Reptiles

Scientific name	Common Name	Status
<i>Alligator mississippiensis</i>	American alligator	G5, S2, FT(S/A), SAT
<i>Anolis carolinensis</i>	Green anole	

<i>Anolis sagrei</i>	Brown anole	Non-native
<i>Aspidoscelis sexlineatus</i>	Six-lined racerunner	
<i>Crotalus adamanteus</i>	Eastern diamondback rattlesnake	G3, S3, UR, SN
<i>Pantherophis guttatus</i>	Corn snake	
<i>Pantherophis alleghaniensis</i>	Yellow rat snake	
<i>Gopherus polyphemus</i>	Gopher tortoise	G3, S3, N, ST
<i>Nerodia fasciata pictiventris</i>	Florida watersnake	
<i>Sistrurus miliarius barbouri</i>	Dusky pygmy rattlesnake	
<i>Terrapene carolina</i>	Florida box turtle	

Amphibians

Scientific name	Common Name	Status
<i>Anaxyrus terrestris</i>	Southern toad	
<i>Arcis gryllus</i>	Southern cricket frog	
<i>Gastrophryne carolinensis</i>	Eastern narrow-mouthed toad	
<i>Hyla cinerea</i>	Green treefrog	
<i>Hyla femoralis</i>	Pinewoods treefrog	
<i>Hyla gratiosa</i>	Barking treefrog	
<i>Lithobates grylio</i>	Pig frog	
<i>Lithobates catesbeiana</i>	Bullfrog	

Appendix G – Twelve Mile Swamp Conservation Area Listed and FNAI Tracked Species

Scientific Name	Common Name	Status
<i>Alligator mississippiensis</i>	American alligator	G5, S2, FT(S/A), SAT
<i>Buteo brachyurus</i>	Short-tailed Hawk	G4G5/S1
<i>Crotalus adamanteus</i>	Eastern diamondback rattlesnake	G3, S3, UR, SN
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5/S2
<i>Eudocimus albus</i>	White Ibis	G5/S4
<i>Falco columbarius</i>	Merlin	G5/S2
<i>Falco sparverius</i>	American Kestrel	G5T4/S3
<i>Gonolobus suberosus</i> var. <i>suberosus</i>	angle pod	ST
<i>Gopherus polyphemus</i>	Gopher tortoise	G3, S3, N, ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5/S3
<i>Mycteria americana</i>	Wood Stork	G4/S2
<i>Nyctanassa violacea</i>	Yellow-crowned Night Heron	G5/S3
<i>Orthochilus ecristatus</i>	giant orchid	ST
<i>Osmunda spectabilis</i>	royal fern	CE
<i>Osmundastrum cinnamomeum</i>	cinnamon fern	CE
<i>Pandion haliaetus</i>	Osprey	G5/S3S4
<i>Rhapidophyllum hystrix</i>	needle palm	CE
<i>Serenoa repens</i>	saw palmetto	CE
<i>Tillandsia bartramii</i>	Bartram's air-plant	ST

Species Ranking and Legal Status definitions as reported by FNAI

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

FE = Federally Endangered

SE = State Endangered

FT = Federally 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

FT(S/A) = Federal Threatened due to similarity of appearance

DL = Delisted

ST = State Threatened

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

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 (6–20 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

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 (FNAI designation)

S2 = Imperiled in Florida because of rarity (6–20 occurrences or less than 3000 individuals) or because of vulnerability to extinction due to some natural or man-made factor (FNAI designation)

S3 = 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 of other factors. (FNAI designation)

S4 = Apparently secure in Florida (may be rare in parts of range) (FNAI designation)

S5 = Demonstrably secure in Florida (FNAI designation)

I = Invasive Species

CE = Commercially Exploited (FDACS designation)

Appendix H – Twelve Mile Swamp Conservation Area Fire Management Plan

The District Fire Management Plan provides general fire management information relative to policy, procedure, and reporting. This document provides the guidelines for the implementation of prescribed fire activities on the Twelve Mile Swamp Conservation Area (Property or TMSCA).

Introduction and Objectives

The Property lies within several sections of Townships 5 and 6 South, Range 28 East, and Townships 6 and 7 South, Range 29 East. The Property is located within the Lower St. Johns River Basin and lies within St. Johns County.

The Property is located approximately 4 miles northwest of St. Augustine. It is situated west of U.S Highway 1, north of S.R. 16, east of I-95, and south of CR 210.

Historically, fires have played a vital role in the shaping and maintenance of many of the natural communities in Florida. As such, most vegetative communities and associated wildlife are fire adapted and, in many instances, fire dependent. Conversely, the exclusion of fire from an area allows for successional changes within the natural community. Fire exclusion leads to the excessive accumulation of fuel loads, which increases the risk for catastrophic wildfires. The goals for the implementation of fire management activities within the Property include:

- Reintroduction of fire after decades-long absence
- Reduction of fuel loads through the application of prescribed fire, as well as fire surrogates, to decrease potential risk of damaging wildfires
- Introduction of growing season (April–August) burns to encourage the perpetuation of native fire-adapted groundcover species
- Mitigation of smoke management issues

The achievement of these goals requires that the Property be partitioned into manageable burn units, termed fire management units (FMUs), prior to the application of prescribed fire within those units. FMUs have been delineated on the Property. Where logical, the District used existing roads and landscape features to delineate FMUs. Occasionally, multiple FMUs with similar fire needs will be burned simultaneously. Roads and natural landscape features provide a break in fuels so that staff can burn smaller areas than initially planned if needed. FMUs for the Property are shown on Figure 16 in the main body of the plan.

Ideally, District staff will thoroughly address and describe each FMU in terms of its fire management needs. District staff anticipate the change of vegetative assemblages over time due to growth and/or restoration and understand that fuel characteristics, models, and resulting fire behavior will also change.

The following sections summarize the considerations necessary for the safe and effective use of prescribed fire as a land management tool within the Property.

Fire-Return Interval

The general frequency to which fire returns to a community type is termed its fire-return interval. Some communities require frequent pyric disturbances to perpetuate themselves while others are not fire adapted and subsequently do not require fire to maintain their characteristics. The following

discussion of native plant communities occurring on the Property and optimal fire-return intervals was characterized in part using information from the 2010 FNAI *Guide to the Natural Communities of Florida* (Table 1). For the purposes of this plan, the use of fire surrogates—including but not limited to mechanical fuels reduction mowing, herbicide applications for the reduction of hardwoods, and timber harvest to reduce the stand density to what is ecologically appropriate based on FNAI’s Reference Natural Communities—will be considered a fire disturbance with regard to fire-return intervals. As such, disturbance-return interval will be used to allow for a wider range of actions to be included.

Table 1: Fire-Return Interval by Natural Community Type

Natural Community Type	FNAI Fire/Disturbance Return Interval
Basin swamp	Not fire maintained
Hydric hammock	Not fire maintained
Upland hardwood forest	Not fire maintained
Bottomland forest	Not fire maintained
Scrubby flatwoods	5–15 years
Mesic flatwoods	2–4 years
Wet flatwoods	3–5 years
Wet prairie	2–3 years
Depression marsh	1–8 years; depending on community embedded within
Baygall	Burn edges with surrounding pyric communities
Dome swamp	2–15 years; depending on community embedded within

The above-referenced fire/disturbance-return intervals relate to high-quality natural communities. The fire-return interval within degraded systems is variable. Prescribed fire will be applied as necessary to achieve restoration and management goals. In addition, the use of fire surrogates will be used to augment prescribed fire efforts or reduce the stature of fuel loads in difficult to burn areas of the TMSCA. Below are descriptions of these natural communities’ relationship with fire in order of overall acreage found on the Property. Natural communities that are not fire maintained are not discussed in this section. Scrub is also excluded from discussion due to its small size of 3 acres.

Mesic flatwoods comprise 5,194 acres of the Property, the largest fire-maintained natural community on the Property. It has a short fire/disturbance-return interval of 2–4 years but the majority of this natural community has been significantly altered by long-term silvicultural operations. Fire exclusion and silvicultural site preparation have greatly reduced the groundcover that carries fires at a low intensity. In addition, many of these stands have been recently replanted which further limits the opportunity to apply prescribed fire in the near term. These conditions often necessitate the need to conduct mechanical fuels treatments to change the fuel structure prior to applying prescribed fire.

Wet flatwoods is the second most extensive fire-maintained natural community on the Property at 3,042 acres. Like the mesic flatwoods, the wet flatwoods on the Property have been significantly impacted by silviculture operations thus fire management in wet flatwoods will be similar to those of mesic flatwoods pertaining to fuel loads. Many of the wet flatwoods grade into floodplain swamps, which may not be a reliable natural fire break due to pine components within the swamps. Both of these flatwoods have been grouped together on the FMU map and will be targeted for fire/disturbance every 2-4 years.

Scrubby flatwoods comprise 974 acres of the Property. This community has the most variable fire/disturbance return interval at 5–15 years. At the TMSCA, scrubby flatwoods occur in a matrix with other natural communities. The relic dune and swales in the southeastern portion of the Property is a good example of this. Due to their spatial distribution with other pyric natural communities, scrubby flatwoods will likely be burned with the adjacent flatwoods units, being a three-year fire/disturbance return interval. This may result in patchy burns in the scrubby flatwoods but over time the patches will ignite when available.

Wet prairie is the fourth largest, principally fire maintained natural community on the Property at 507 acres. This natural community, though typed as wet prairie, is currently in pine plantation. Much of the understory is bloodroot as well as pine litter. Fire/disturbance will be applied here on a three-year interval, which is on the upper end of the preferred interval but more in line with the rest of the fire dependent ecosystems on the Property. As this natural community responds to prescribed fire, the fire/disturbance return interval may be adjusted.

Fire management within the remaining pyric plant communities (described below) will be in conjunction with the associated flatwoods (scrubby, mesic, or wet). These plant communities will burn as site conditions permit during the implementation of prescribed burns in adjacent natural communities. Accordingly, these areas will not be excluded from fire activities unless warranted by safety or smoke management issues.

- The 63 acres of depression marsh provide prime breeding habitat for a variety of herpetofauna. These marshes are embedded within the mesic flatwoods on the Property. These marshes will be prescribed burned in conjunction with these flatwoods. Prescribed fire objectives for the flatwoods units that have basin and/or depression marshes included within them should include ensuring fire moves into the ecotone between the natural communities in order to reduce the shrubby fire shadow that often occurs in the transition between uplands and wetlands.
- The 653 acres of dome swamps on the Property are embedded within the flatwoods. These communities take the shape of the typical circle shaped dome swamp but also occur in strand form within the relic dune and swale system found on the Property. The dome swamps will likely receive fire on their ecotones when fires are affecting the surrounding community.

The altered communities on the TMSCA are not included in this fire-return interval discussion and will be burned as needed or as a component of larger FMUs, which includes the above-described natural communities.

Seasonality and Type of Fire

Historically, most fires in Florida occurred during what is commonly referred to as the “growing season.” The growing season usually spans from April through mid-August. Fires during the growing season generally have significant ecological benefits as most fire adapted flora is perpetuated by fire. Mimicking lightning ignited natural fires by implementing prescribed fire during the growing season provides benefits to natural systems by controlling shrub layers and encouraging diversity in groundcover species.

Dormant season burns, conducted from late November through mid-March, help to reduce fuel loads in overgrown areas or in areas of newly planted pines. Cooler conditions associated with dormant season burning are a consideration in areas of high fuel loads and where only minimal pine mortality is acceptable. Additionally, dormant season burning may result in fewer safety and smoke management issues due to higher fuel moisture and more consistent winds. District staff will continue to work to maintain fire-return intervals that are consistent with those identified by FNAI for the various communities within the Property (Table 1).

In many cases, fire management units with similar fire management needs may be burned simultaneously, either with crews igniting the areas by hand from the ground, or with the aid of aircraft. Aerial ignition allows District staff to ignite fire management units quickly, which results in faster burnout and reduces smoke management concerns. Additionally, convection produced by igniting an area can help move the smoke up and away more quickly. Aerial ignition also allows staff to introduce fire into areas that may be inaccessible from the ground, ensuring that prescribed fire is introduced into even the most remote areas within the fire management units. Aerial ignition allows staff to burn more acres in a shorter period, which in time will aid District staff in maintaining optimal fire return frequencies. An aerial burn safety plan (Exhibit 1) will accompany the individual burn prescriptions and be onsite and on the ground the day of any aerial burn. Figures 16 and 17 shows landing zones for aerial operations and Table 3 as well as Exhibit 1 of this appendix provides landing zone coordinates.

Wildfire Policy

In the event of a wildfire, if conditions permit, suppression strategies will utilize existing fuel breaks to contain the wildfire. These fuel breaks may include previously burned areas, existing roads, trails, and fire lines, and wetlands and other water bodies. This is only possible with the agreement of local fire rescue, Florida Forest Service, District staff, and when all the following conditions are met:

- (1) Fuels within the area have been managed.
- (2) No extreme weather conditions (including but not limited to drought, fire weather watches/warnings, wind events) are present or expected.
- (3) There are no other wildfires that may require action.
- (4) There are sufficient resources available to manage the fire to containment.
- (5) The fire and the resulting smoke will not impact neighbors or smoke sensitive areas.

If any of these conditions are not met, direct suppression action will be taken.

As soon as possible following a fire in which fire lines are plowed, a plan for fire line rehabilitation shall be developed and implemented.

Persons discovering arson or wildfires on the conservation area should report them to the Florida Department of Agriculture and Consumer Services, Florida Forest Service, the St. Johns River Water Management District, or by dialing 911.

Post Burn Reports

Burn reports must be completed after each prescribed burn or wildfire. These reports include detailed information regarding the acreage, fuel models, staff and equipment hours, cooperator hours, contractor hours, weather (forecasted and observed), and fire behavior. The timely completion of these reports is necessary for the compilation of information relative to the entire District burn program. Additionally, these reports provide a documented account of site-specific conditions which are helpful in the planning of future burns.

Smoke Management

A significant challenge to the implementation of any prescribed burn program is smoke management (Figure 1). Fuel loads across the Property are moderate due to intensive site preparation of the silvicultural stands. Accumulated fuels have the potential to produce a tremendous amount of smoke as areas are burned. As the surrounding areas become increasingly urbanized, smoke management concerns will increase in magnitude, as there become fewer acceptable places to maneuver a smoke column from a prescribed fire.

The large size of the Property creates an acceptable smokeshed within the Property itself in which to place a smoke column from a prescribed fire, though there are smoke sensitive areas that surround the Property and may affect the smoke management of each FMU. Thus, smoke management is a limiting factor in the application of prescribed fire within the Property (Figure 1). As development increases in the area, fire management will become more difficult. U.S. Highway 1 as an eastern boundary, I-95 as a western boundary, and the Northeast Florida Regional Airport to the east greatly impacts the District's ability to implement prescribed burns at the appropriate fire-return intervals within the Property. Smoke settling into Twelve Mile Swamp and the St. Johns and Tolomato rivers from prescribed fires on the Property is also a concern. The use of fire surrogates and smaller acreage burn units will be the best way to overcome the current and future smoke management challenges.

Depending on the arrangement and composition of fuels, fire spread may be through grasses and/or needle litter or shrub layer. Areas within the Property having heavier shrub and mid-story fuel accumulation can burn for long periods of time causing additional smoke management issues. If areas of duff and organic soils are present in an FMU, these must also be considered in regard to smoke management. If these fuels do not contain a high moisture content, then the potential of long-term smoldering combustion and smoke production is high.

A fire weather forecast is obtained and evaluated for suitable prescribed fire conditions and smoke management objectives. A wind direction is chosen that will transport smoke away from urbanized areas and/or pose the least possible impact on smoke sensitive areas. When possible, the smoke plume from burns should be directed back through the Property. Smoke can then mix and loft into the atmosphere over uninhabited or rural land adequately enough to minimize off-site impacts.

On burn days, the ability of smoke to mix and disperse into the atmosphere should be acceptable for the fuels within the burn unit. The dispersion index is a value that indicates the atmosphere's ability to "absorb and disperse" smoke. The higher the index value, the more the smoke dissipates but these

high values can also produce erratic fire behavior. Dispersion indices should be above 25. Dispersions of greater than 75 will not be utilized unless other weather conditions such as high relative humidities and recently burned fuels (less than 6 months) adjacent to the unit mitigate expected fire behavior. Forecast mixing heights should be above 1,700 ft. Transport winds should be at least 9 mph to effectively minimize residual smoke. Lower transport wind speeds can be utilized if dispersion index and mixing heights are above average. Burns will be conducted with a carefully plotted wind direction to limit and/or eliminate negative impacts from smoke to neighbors and urbanized areas.

Mechanical and Chemical Treatments

Short- and long-term weather conditions and a fire management unit's proximity to smoke sensitive areas become increasingly important when implementing a prescribed fire program. Should drought conditions become severe, or if smoke management becomes an insurmountable problem, the District may use mechanical methods, such as mowing or roller-chopping, as well as herbicide treatments, as alternatives to prescribed fire. Ideally, these methods are a bridge to the continued use of prescribed fire with additional mitigation measures, such as reducing burn acreage size in urbanizing areas.

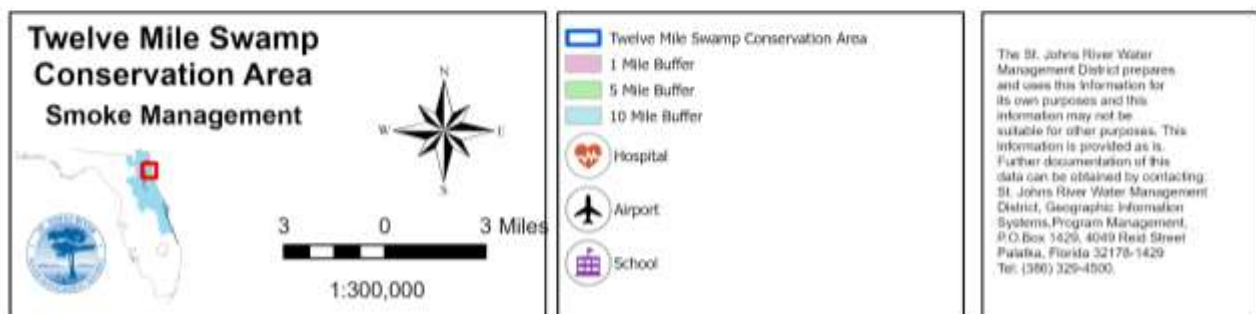
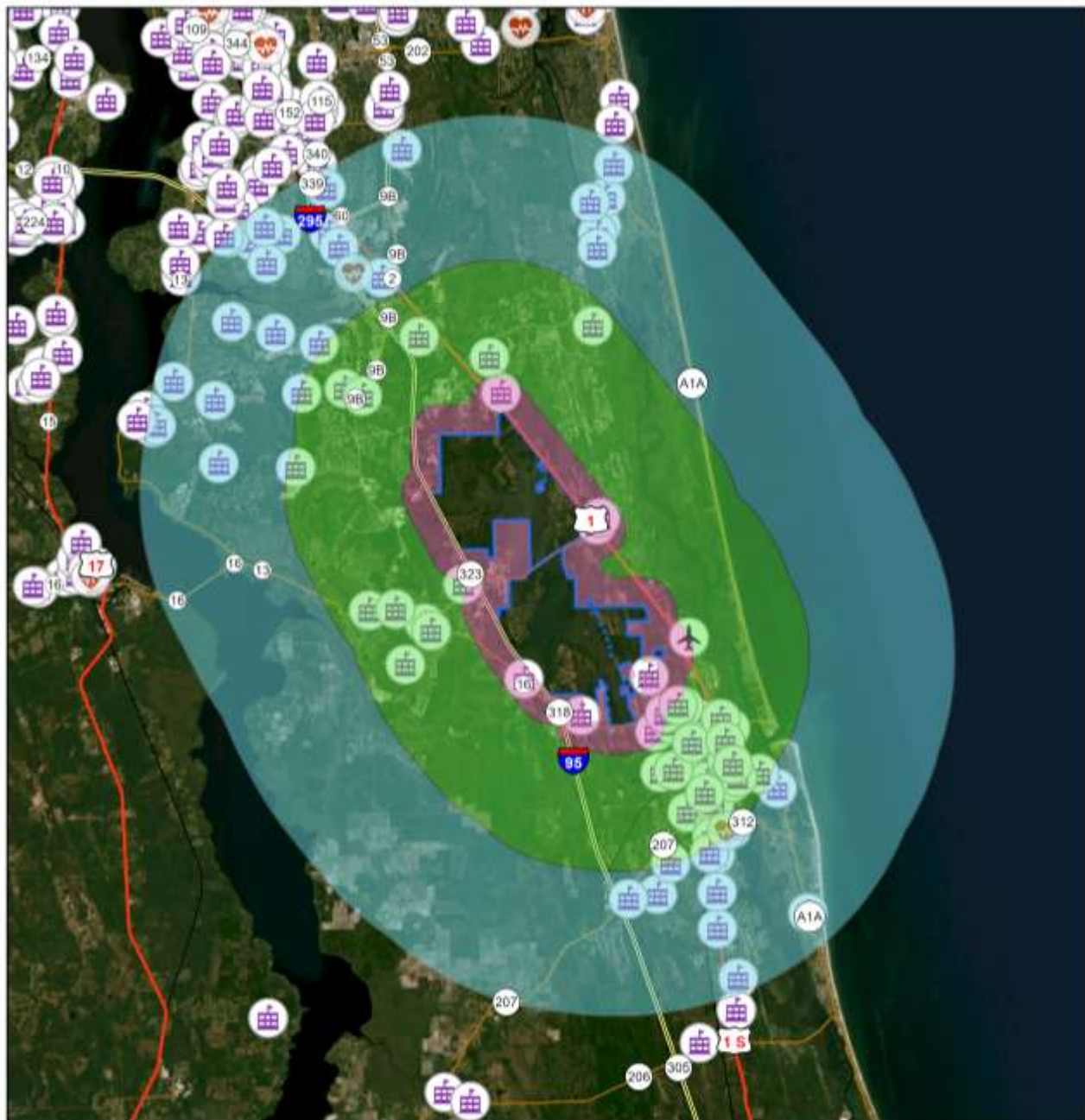


Figure 1. Fire management – smoke sensitive areas

Hazards

Common hazards include heat stress, venomous snakes and insects, trip hazards, or falling trees. Individual prescriptions address the hazards to consider when burning each unit and are discussed during the pre-burn briefing.

Legal Considerations

Only burn managers certified by the Florida Forest Service will approve the unit prescriptions and must be onsite while the burn is being conducted. Prescriptions and weather parameters will be approved by the burn manager's chain of command before a specific burn can be conducted. Certified burn managers adhering to the requirements of Section 590.125, F.S., are protected from liability for damage or injury caused by fire or resulting smoke, unless gross negligence is proven.

Exhibit 1
Aerial Burn Safety Plan
Twelve Mile Swamp Conservation Area

The hazards associated with this type of burning are related to working with the helicopter, the sphere dispenser, and dealing with active fire. All helicopter safety procedures and all District fire line policies and procedures will be followed.

1. **BRIEFING** – During the operational briefing, the safety plan will be reviewed with all personnel on the burn.
2. **HELICOPTER SAFETY** – The pilot will give a helicopter safety briefing at the morning operational briefing.
3. **AIDS SAFETY** – The operator will review the operation and cleaning procedures for the dispenser at the morning briefing.
4. **PERSONAL PROTECTIVE EQUIPMENT** – The incident commander will ensure that all personnel have the required Personal Protective Equipment (PPE).
5. **HIGH HAZARD AREAS** – All high hazard areas such as power lines shall be designated on the map and attached to the burn plan.
6. **EMERGENCY LANDING ZONES** – These should be confirmed with the pilot and indicated on the burn map.

Landing zone 1	81.4483745°W 30.0224694°N
Landing zone 2	81.4543155°W 30.0080836°N
Landing zone 3	81.4391424°W 29.9568976°N
Landing zone 4	81.3762912°W 29.9499309°N

Crash Rescue Plan

In the event of an accident involving the helicopter the following procedures will be followed.
INCIDENT COMMANDER or BURN BOSS

1. **Notify 911**
2. Notify St. Johns County Fire and Rescue 911 or (904) 209-1700
3. Notify St. Johns County Sheriff's Office 911 or (904) 824-8304
4. Assume responsibility of the Rescue Operation.
5. Notify National Transportation Safety Board (NTSB) (305) 957-4610 or (404) 462-1666.
6. Delegate responsibility of fire control to the second in command or the most qualified.

SECOND IN COMMAND

1. Assume responsibility of the burn.
2. Assist the Incident Commander (IC) or Burn Boss with resource and personnel needs for the rescue operation.
3. If the IC is in the helicopter, second in command will assume rescue operation responsibilities and assign the most qualified to fire control.

Emergency Phone Numbers

AIR RESCUE UNITS

1. UF Health Shands Jacksonville (904) 244-0411

BURN UNIT LOCATIONS

1. UF Health Shands Gainesville – Burn Unit (352) 265-8932

FLORIDA FOREST SERVICE

1. Jacksonville District Dispatch (904) 266-8351

NTSB

1. Southeast Regional Office (305) 957-4610
2. Southeast Field Office (404) 462-1666

APPENDIX I - DISTRICT FOREST MANAGEMENT PLAN

In 1998, the Florida Legislature charged all state land management agencies with managing the forest resources on the lands they have acquired. To date, the St. Johns River Water Management District (District) has acquired over 775,000 acres of land. Approximately 43 percent of these acres are forested. Prior to 2000, no overall long-term plan existed to provide guidance and coordination for the management of the District's forest resources. This plan will provide that guidance and continuity.

Even prior to the legislative directive, the District had been managing its forest resources. Timber sales began in 1991 with a salvage sale at Lake George Conservation Area following a wildfire. From 1991–2025, over 200 timber sales have been completed.

PURPOSE OF FOREST MANAGEMENT

The District manages forest resources for the:

- (1) Restoration of natural communities
- (2) Maintenance of the health and vigor of natural communities
- (3) Generation of revenues to counterbalance the cost of land management activities

Restoring Natural Communities

The District acquires its land from a variety of private owners, and each owner had their own vision for the land. Many times, in fulfilling their vision, private owners altered the natural communities by clearing for agricultural purposes or for planting trees. Whenever practicable, the District is charged with maintaining and/or restoring the land to its natural state and condition.

Thinning, clearcutting, and planting are all tools used to restore natural communities, but in almost all cases they are used in conjunction with fire. The combinations of overstory control and fire management are the primary restoration tools in forested communities.

In forested communities, controlling or manipulating the overstory serves as the primary tool to maintain or restore the natural community. The density of the overstory dictates the health and diversity of understory species. If the overstory becomes too dense, both the overstory and understory species begin to suffer. In cases where the overstory remains crowded too long, individual understory plants begin to disappear. Often, seeds of these plants will remain dormant in the soil. Thinning individual trees from an overcrowded stand allows more light, moisture, and nutrients to be available for groundcover plants. This allows dormant plants to reoccupy their former sites, thereby restoring the natural state and condition.

In some cases, private owners planted a species of tree that did not naturally occupy the site. In these cases, the District will clearcut the undesired tree species and replant with the more appropriate species.

In cases where the previous owner cleared the site, the District will prepare the site and plant the appropriate tree species. Since longleaf pine occupies approximately 5 percent of the area it did in 1900, and since longleaf offers a suite of wildlife benefits greater than most other pines, the District will emphasize planting of longleaf on all sites where longleaf is suited for the site.

Maintenance of Health and Vigor of the Natural Communities

The health or quality of a forested natural community is maintained by three primary factors: (1) the availability of water, (2) the frequency of fire, and (3) the density and species composition of the overstory.

In few cases do the activities of the District affect the availability of water on District forestlands. One exception is where sites are restored through the plugging of ditches or rehydration of historically wetland systems. Weather is the primary factor influencing the availability of water.

Fire influences the health of forested communities by altering the process of succession. Fire holds natural communities in an intermediate stage of succession that is referred to as a fire climax community. If fire is removed, these natural communities follow the path of succession to become some other community. In Florida, most natural communities historically experienced fire on a frequent basis. In fact, most communities are dependent upon frequent fire for their continued existence. Because of its importance as a management tool, fire is addressed in detail in the District's Fire Guidelines and Protocols.

The third factor influencing the health and/or quality of forested natural communities is the overstory density and species composition. In a truly natural system, wildfire, climatic disturbances, along with insects and diseases, combined to control the composition of the overstory, which in turn controls the composition of the understory. Wildfire, insects, and disease kill trees as individuals or groups, which reduces the density of the overstory and alters the species composition. These events or outbreaks would often impact large areas, especially areas where the stand density was high, weakening the overstory trees and increasing their susceptibility to pathogens. Prior to human intervention, huge expanses of natural land could easily absorb large-scale alterations of the overstory so that no plant or animal species could be extirpated. Today, Florida is fast approaching a condition where natural areas are becoming islands. Plants and animals have fewer areas to populate, and it is more difficult to transfer their genetic material between isolated areas of ideal habitat. Therefore, land managers can no longer rely entirely on large-scale disturbances to control overstory density and species composition. By managing the overstory with selective harvesting, the density and species composition can be controlled to maintain a healthy natural community while minimizing the potential for large-scale impacts.

As a land manager, the District also has an obligation to do its part to try and protect neighboring landowners from any large-scale wildfire, insect or disease outbreaks that may originate on District land and spread to adjacent lands. This obligation prohibits the District from employing a truly natural management system to control overstory species, density, and composition and requires the District to utilize a more interactive management program.

Generation of Revenues

The Florida Legislature has directed public land managers to manage forest resources for an economic return. The District generates revenue when implementing sound overstory management practices to maintain the health of the natural community. These practices include but are not limited to thinning operations, removal of undesired species (clearcuts), and salvage cuts to remove trees damaged from wildfires, insect infestations and/or disease outbreaks. The revenue generated from these operations can be used to fund restoration and other land management activities.

FOREST RESOURCES INVENTORY

Following legislative directive and seeking to keep its land management efficient, the District has sought management partners. The following chart illustrates the lead manager status of District-owned lands (Figure 1).

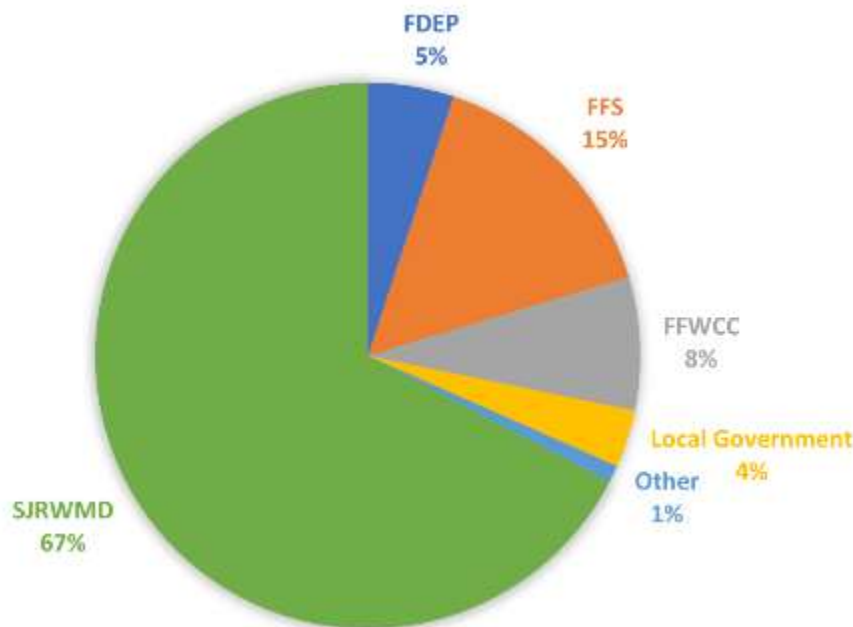


Figure 1. District-Owned Land by Lead Manager. Updated January 2020

The District's Land Management Rule, agreements and philosophy call for the lead manager's rules and policies to direct the management of the affected lands; therefore, this plan will be focused on the lands where the District is identified as the lead manager. The District serves as the lead manager on 430,000 acres. These acres managed by the District are broken down as follows (Figure 2).

Twenty-seven percent of the District-managed lands are forested, with 12 percent being forested uplands and 15 percent forested wetlands.

OBJECTIVES OF FOREST MANAGEMENT

The District's forest management objectives are to:

- Maintain the health and diversity of forested communities on District lands
- Provide for older-aged forest conditions. As public landowners, the District has the opportunity to provide habitat for species requiring older age classed trees.
- Provide for an array of forest stand structures and age classes. Each species of plant and animal has an age-class of forest stand that is most desirable. By providing the array of structures and age classes, the District can provide habitat for a wide variety of species.

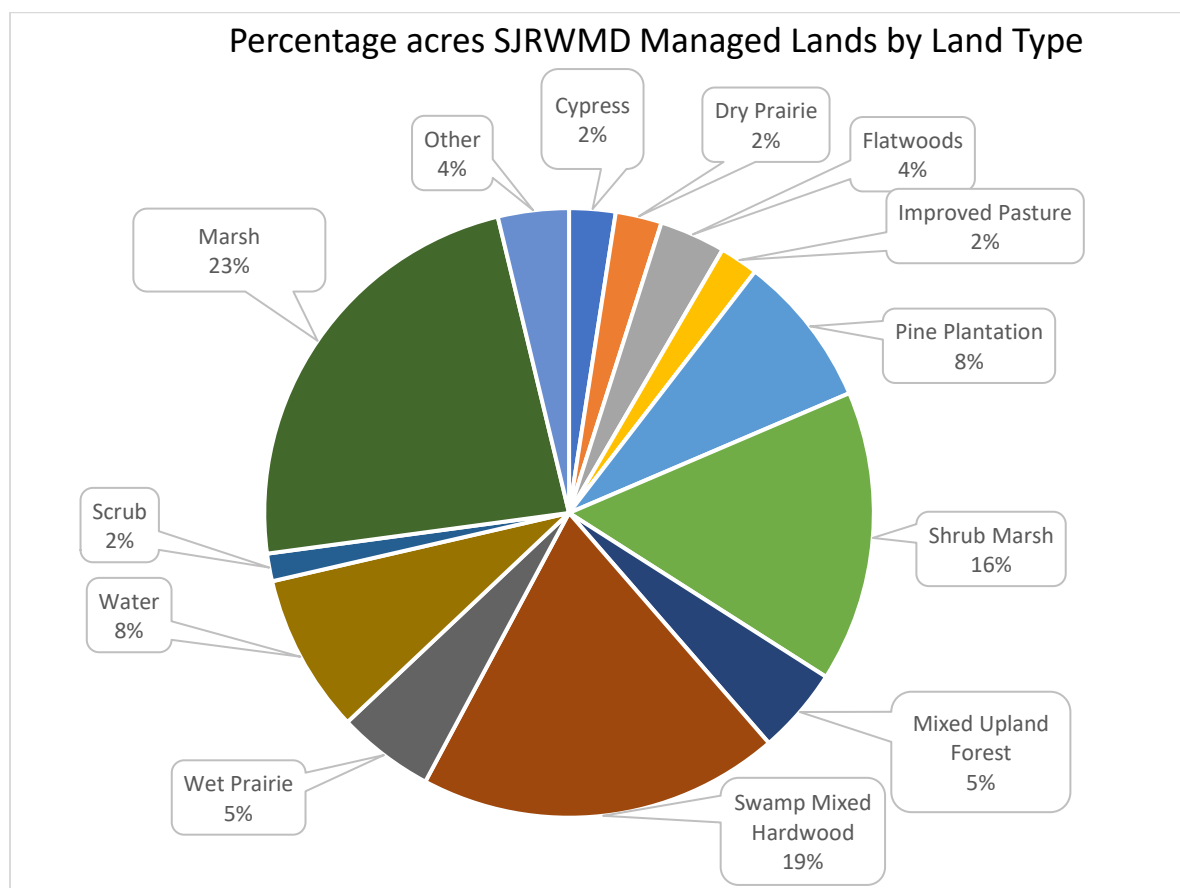


Figure 2. Percentage acres SJRWMD-Managed Lands by Land Type. Updated January 2020

Techniques of Forest Management

Inventory

The District is currently developing a timber management database that will directly link timber volume information with the GIS lands database. The database will incorporate inventory data collected at acquisition and track changes overtime. Changes resulting from harvests, wildfires, insect infestations, disease outbreaks, and reforestation efforts can be updated quickly and easily. Periodic updates of volume and growth information will be scheduled and incorporated into the database. The database links will aid in determining natural community needs along with geographic distribution and appropriate management techniques to implement. The database will be an intricate part in managing community health and in developing future land management workplans.

Harvesting

To accomplish its goals the District will employ a suite of harvesting systems.

Clearcutting is a silvicultural operation used to remove the entire overstory at one time. This tool will be used with limited application dependent upon the specific management needs. Those needs may include:

1. Insect or disease control. Forest pests occur naturally at low population densities and are a vital part of the forested community. When population densities reach epidemic levels, control measures to remove the host and adjacent trees must be implemented to protect the remainder of the stand.
2. Salvage. If the overstory has been killed or severely damaged, removing (salvaging) the overstory will recover some financial value of the timber and will allow the District access necessary to replant the site.
3. Species conversion. If offsite species exist, clearcutting enables the District to replace the offsite species with one that is appropriate.

Thinning is a silvicultural operation where selected individual trees are removed from the stand to reduce the density of overstory trees to improve growing conditions for the remaining overstory trees and the understory plants. This method is not applied with a goal of establishing regeneration.

The seed tree system is a silvicultural operation where the entire overstory except 10–15 prime trees per acre are harvested at one time. These 10–15 trees serve as the seed source for the next generation. This technique is seldom used by the District. While the seed tree system is effective, it creates major change in the stand condition both visually to the public and biologically to the plants and animals in the stand.

Shelterwood is a silvicultural operation in which the overstory is removed in phases. When it is time to regenerate the stand, approximately 60–70 percent of the stand is removed either in one or two harvests. Again, the older trees serve as the seed source for the next generation. Once the younger trees are established the original overstory trees can be removed or they can remain on site and be subject to thinning at the same time as the younger generation. The major benefit of this system is it results in a more gradual change from the mature trees to the next generation both visually to the public and biologically to the plants and animals.

A new modification of the shelterwood called an irregular shelterwood has recently been developed and may become the primary silvicultural system employed by the District. An irregular shelterwood begins the same as shelterwood but portions of the original overstory remain on site. When the second-generation trees are thinned, a few of the first-generation trees are also thinned. When it is time for the third generation to be established both the first- and second-generation trees are reduced to 30–40 square feet of basal area to make room for the third-generation trees. Once the third-generation trees are established the site has few first-generation trees, some second-generation trees, and many third-generation trees. This provides for a variety of age classes in a single stand but is much easier to apply and should require much less staff time than uneven-aged selection management.

Uneven-aged selection is a silvicultural operation in which trees, either as individuals or in small half-acre groups are harvested from throughout the stand every 5–10 years. The holes left by the removal of these trees are filled with seedlings from adjacent trees thereby creating a patchwork stand composed of trees of all ages. While this system offers the greatest distribution of age within a stand, truly an uneven aged condition which some scientists feel is best for wildlife, it also requires significant staff inputs and to date appears too labor intensive to employ on a large scale.

Site Preparation

When it is necessary to establish regeneration, either naturally or artificially, the District may employ one or more of the site preparation techniques described below.

Herbicide will be used when staff have determined that it is the most effective means to control the competing vegetation. Herbicides will not be used if it adversely affects the desirable understory species within the planting site. The use of herbicide is necessary when attempting to restore native trees and groundcover to areas of improved pasture. Herbicide can be applied with hand sprayers, tank sprayers, or aerially from a helicopter, depending upon the species to be treated and site conditions.

Disking/scalping techniques are most useful when trees are being planted in areas of improved pasture. Both techniques protect the seedlings from grass competition but offer no benefit to groundcover restoration.

Drum chopping is effective at reducing competition from shrub species, especially saw palmetto. If properly applied grasses within the treatment area will survive chopping and will often benefit from the choppers effect on the shrubs.

Bedding is a technique where a small ridge of surface soil is formed to provide an elevated planting or seedbed. It is used primarily in wet areas to improve soil drainage and aeration for seedlings. This type of site preparation technique has not been utilized by the District because of the adverse effects it has on groundcover and sheetflow. Therefore, the District's planting costs are often higher than private industry's because without bedding several plantings are often necessary to establish seedlings on wet sites.

Regeneration

Emphasis will be placed on natural regeneration to the extent practicable. In cases where species conversion is required or where no overstory exists to provide natural seed fall, planting will be necessary.

Hand planting is primarily method used by the District because it offers the following benefits:

1. Trees can be placed on the best microsites (i.e., highest ground in wet areas, areas with the least competition)
2. Groundcover disturbance is minimized
3. Seedlings can be randomly spaced or planted in clusters to provide for a more natural appearance

Machine planting is used primarily in old field conditions where scalping is employed and rows are suitable.

OVERALL METHODOLOGY

Forested natural communities can be lumped into three different groups with regards to forest management. These include Pine Forests, Upland Hardwoods, and Wetland Hardwood/Cypress. The management of each will differ and be described separately.

Pine Forests

Pine forests include flatwoods, plantations, sandhills, and sand pine scrub. With the exception of sand pine scrub pine forests will be managed through thinning. Once the stand is established and trees have reached merchantable size (5 inches at diameter breast height) at approximately 15–20 years of age depending on tree species and sites, thinning will begin. Stands will be thinned as necessary to maintain an overstory basal area range of 60–90 square feet per acre. This range promotes good growth of understory plants and provides good habitat for most wildlife using forested natural communities. To maintain this basal area range harvests will occur in each stand approximately every 10 years, depending on growth rates of the trees. Great care will be exercised during harvesting operations to minimize disturbance of the soil and groundcover. When properly performed, harvesting actually benefits groundcover regeneration by reducing shrub species and improving growing conditions.

The need for regeneration will be determined by an inventory of the health, vigor, and species composition for the trees in each stand. Once the conditions of the overstory trees indicate the need, a regeneration harvest will be scheduled employing the appropriate silvicultural system described previously. Emphasis will be placed on making the most seamless transition from one generation to the next. The irregular shelterwood will be employed frequently in loblolly, slash and longleaf pine stands.

Emphasis will be placed on having a wide array of age classes between stands and an array of different aged trees within stands. Included in the desired array of ages will be trees and stands significantly older than those typically found on private lands.

To ensure the wide array of age classes is met, the District will separate pine stands into four different types based upon general age and condition. These four types include:

1. Regeneration (age 0–10): The site is occupied primarily by tree seedlings and saplings, herbs, and shrubs. Competition from the trees has not yet resulted in any reduction in herb or shrub layer. This type begins at planting and continues until crown closure. Herbs, shrubs, and grasses occupy 20–80 percent of the ground. This type offers benefits to early successional wildlife species such as quail, rabbits, gopher tortoises, deer, turkeys, and their predators.
2. Closed Canopy (age 11–20): Trees fully occupy the site and form a single, main canopy layer. There is little understory development due to the lack of light passing through the canopy. Where understory exists, it is dominated frequently by palmetto and/or gallberry. This type benefits fewer wildlife species but does offer bear and deer good escape cover.
3. Understory (age 21–60): The overstory density has been reduced through thinning and the understory is beginning to reinitiate. Adequate light is again available to the forest floor. Groundcover plant species and wildlife both begin to flourish again. Wildlife benefiting from this stand type include deer, turkey, quail, and gopher tortoises.
4. Older Forest Structure (age 60+): This stand type begins to develop a layered overstory. Trees are large, with diameters >12 inches. Snags will begin to appear and should be protected. The understory is diverse and healthy. Wildlife benefiting from this stand are fox squirrels, great horned owl, southeastern kestrel, turkeys, quail, gopher tortoises, red cockaded woodpeckers, eagles, and ospreys (nesting trees).

The District will strive to keep 10–15 percent of its pine forests in type 1; 10–15 percent in type 2; 30–40 percent in type 3; and 40 percent in type 4. The present condition is shown below (Figure 3):

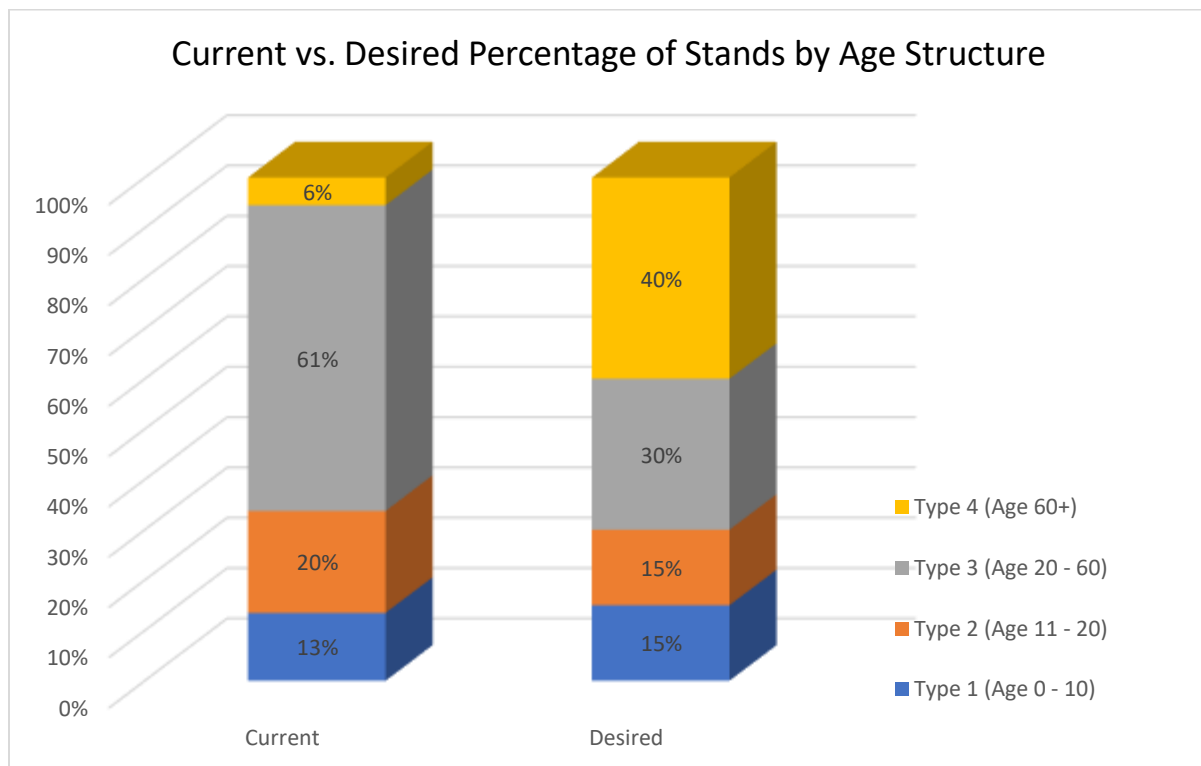


Figure 3: Current vs. Desired Percentage of Stands by Type. Updated January 2020.

Sand pine management will differ from other pine types because it is adapted to an even aged environment. Sand pine characteristically grows in dense, even-aged, pure stands, which originated as a direct result of catastrophic fires or similar events. When a killing fire sweeps through a stand of cone-bearing trees, the serotinous cones (which remain tightly closed for many years unless opened by heat) open and release large quantities of seeds to naturally regenerate the area. These catastrophic fires are difficult to mimic with prescribed fire since they are difficult to control. Complete stand removal (clearcutting) is the preferred method available to mimic the nature's stand replacing events. The natural cycle for stand replacing events is from 20–60 years. Sand pine stand will therefore be clearcut and regenerated on a similar cycle.

The primary forest management activities of the District will be within these pine stands.

UPLAND HARDWOODS

Currently upland hardwoods constitute 2 percent of District-managed lands. Typically, they are mesic and xeric hammocks with the dominant species being live oak. There is no ecological need for harvesting within these communities and no commercial value to be derived from harvesting live oak.

Limited areas of upland hardwoods have developed on former sand hills and flatwoods due to a lack of fire or other ownership priorities prior to acquisition. These areas can be returned to their original natural community by harvesting the overstory and planting the original species appropriate to the site. Hardwood species encountered on such site include turkey oak, laurel oak, bays, and sweetgum.

WETLAND HARDWOODS AND CYPRESS

As with State Forests, the District has no plans to harvest timber from the swamps. However, the following may be situations where limited harvesting would offer the District benefits.

Following a catastrophic outbreak of insects, disease or wildfire harvesting the dead timber can create the growing space for the next generation. Most swamp species reproduce from both seed and regenerative sprouting. Removing the dead overstory will reduce the hazard from trees falling on people and young trees.

Twenty to 30 years following a catastrophic event the District may choose to selectively thin the hardwoods and cypress to accelerate the process of developing old-growth conditions. In a truly natural setting, the development of old-growth conditions will take 75–100 years since the trees compete with one another until the weaker individuals die. Through thinning, the number of trees can be reduced, and the growth concentrated on the remaining trees so that they become larger faster and old-growth habitat can be created earlier.

The sensitivity required to log wetland systems cannot be overly stressed. Any harvesting performed in wetlands must be carried out under the most stringent conditions to avoid damage to the site.

Harvesting can only be done when rutting and damage to residual trees can be minimized.
Harvesting must be closely monitored and shut down if conditions deteriorate.

This plan was approved by the Governing Board in February 2000 with charts updated January 2020.

Appendix J – Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Properties (revised June 2021)

These procedures apply to state agencies, local governments, and non-profits that manage state-owned properties.

A. Historic The Property Definition

Historic properties include archaeological sites and historic structures as well as other types of resources. Section 267.021, F.S., defines “historic property” or “historic resource” as “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

Pursuant to section 267.061, F.S., and state policy related to historic properties, state agencies of the executive branch must provide the DHR the opportunity to comment on any undertakings with the potential to affect historic properties that are listed, or eligible for listing, in the National Register of Historic Places, 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 DHR has the opportunity to review and comment on the undertaking. (Section 267.061(2)(a), F.S.)

State agencies of the executive branch must consult with the DHR when, as a result of state action or assistance, a historic property will be demolished or substantially altered in a way that will adversely affect the property. State agencies must take timely steps to consider feasible and prudent alternatives to the adverse effect. If no feasible or prudent alternatives exist, the state agency must take timely steps to avoid or mitigate the adverse effect. (Section 267.061(2)(b), F.S.)

State agencies of the executive branch must consult with the DHR to establish a program to locate, inventory and evaluate all historic properties under ownership or controlled by the agency. (Section 267.061(2)(c), F.S.)

These agencies are responsible for preserving historic properties under their control. They are directed to use historic properties available to the agency when that use is consistent with the preservation of the property and the agency’s mission. They are also directed to pursue preservation of historic properties to support their continued use. (Section 267.061(2)(d), F.S.)

C. Statutory Authority

The full text of Chapter 267, F.S., and additional information related to the treatment of historic properties is available at:
<https://dos.myflorida.com/historical/preservation/compliance-and-review/regulations-guidelines/>

D. Management Implementation

Although the DHR sits on the Acquisition and Restoration Council and approves land management plans, these plans are conceptual and do not include detailed project information. Specific information for individual projects must be submitted to the DHR for review and comment.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the DHR to allow for review and comment on the proposed project. DHR's recommendations may include but are not limited to approval of the project as submitted, recommendation for a cultural resource assessment survey by a qualified professional archaeologist, and modifications to the proposed project to avoid or mitigate potential adverse effects.

Projects such as additions or alterations to historic structures as well as new construction must also be submitted to the DHR for review. Projects involving structures 50 years of age or older must be submitted to the DHR for a significance determination. In rare cases, structures under 50 years of age may be deemed historically significant.

Adverse effects to historic properties must be avoided when possible, and if avoidance is not possible, additional consultation with the DHR is necessary to develop a mitigation plan. Furthermore, managers of state property should prepare for locating and evaluating historic properties, both archaeological sites and historic structures.

E. Archaeological Resource Management (ARM) Training

The ARM Training Course introduces state land managers to the nature of archaeological resources, Florida archaeology, and the role of the Division in managing state-owned archaeological resources. Participants gain a better understanding of the requirements of state and federal laws with regard to protecting and managing archaeological sites on state-managed lands. Participants also receive a certificate recognizing their ability to conduct limited monitoring activities in accordance with the Division's Review Procedure, thereby reducing the time and money spent to comply with state regulations. Additional information regarding the ARM Training Course is available at:

<https://dos.myflorida.com/historical/archaeology/education/arm-training-courses/>

F. Matrix for Ground Disturbance on State Lands

The matrix is a tool designed to help streamline DHR's Review Procedure. The matrix allows state land managers to make decisions about balancing ground disturbance and stewardship of historic resources. The matrix establishes types of undertakings that are either minor or major disturbances and then guides the land manager to consult the DHR, conduct ARM-trained project monitoring, or proceed with the project.

Additional information regarding the matrix is available at:

<https://dos.myflorida.com/historical/archaeology/education/dhr-matrix-for-ground-disturbance-on-state-lands/>

G. Human Remains Treatment

Pursuant to Chapter 872, F.S., it is illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, the provisions of Chapter 872, F.S., will be followed. All activity in the area that may disturb the remains will cease. Bones and nearby items will be left in place and law enforcement or the local district medical examiner will be notified immediately of the discovery. Additional information regarding the treatment of human remains and cemeteries is available at:

<https://dos.myflorida.com/historical/archaeology/human-remains/>

<https://dos.myflorida.com/historical/archaeology/human-remains/abandoned-cemeteries/what-are-theapplicable-laws-and-regulations/>

H. Division of Historical Resources Review Procedure

Projects on state-owned or -controlled properties may submit projects to the DHR for review using the streamlined State Lands Consultation Form. The form provides instructions to submit projects for review and outlines the necessary information for the DHR to complete the review process. The State Lands Consultation Form and additional information about the DHR's review process is available at:

<https://dos.myflorida.com/historical/preservation/compliance-and-review/state-lands-review/>

* * *

Questions relating to the treatment of archaeological and historic resources on state lands should be directed to:

Compliance and Review Section
Bureau of Historic Preservation
Division of Historical Resources
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250
StateLandsCompliance@dos.myflorida.com
Phone: (850) 245-6333
Toll Free: (800) 847-7278
Fax: (850) 245-6435

Appendix K – Arthropod Control Plan

Anastasia Mosquito Control District of St. Johns County

120 EOC Drive, St. Augustine, FL 32092
Telephone: (904) 471-9167 * Fax (904) 471-9189 * Web: www.amcdnc.org

BOARD OF COMMISSIONERS

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Johnny Counts, Commissioner
Gina LeBlanc, Commissioner

DISTRICT DIRECTOR

Dr. Rui-De Xue



September 30th, 2026

Chris Kinslow
Land Resource Specialist
St. Johns River Water Management District

Dear Mr. Kinslow,

Anastasia Mosquito Control District does not have an Arthropod Control Plan for Twelve Mile Swamp Conservation Area.

This conservation area is included in District wide operation for maintenance of public health and safety.

Please don't hesitate to contact me if you have further questions.

Kind regards,



Whitney A. Qualls, MS, PhD
Assistant Director
Anastasia Mosquito Control District of St. Johns County