

Land Management Plan Compliance Checklist

Required for State-owned conservation lands over 160 acres (Updated July 2022)

Instructions for managers:

Complete each item and fill in the applicable correlating page numbers and/or appendix where the item can be found within the land management plan (LMP). If an item does not apply to the subject property, please describe that fact on a correlating page number of the LMP. Do not mark an "N/A" for any items below.

For more information, please visit the stewardship portion of the Division of State Lands' website at: <http://floridadep.gov/lands/environmental-services/content/land-stewardship>

Section A: Acquisition Information Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
1	The common name of the property.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 8 (II.A.1)
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 9 (II.A.4)
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	Page 11 (II.B.2)
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	Page 8 (II.A.2)
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 & 18-2.021	Exhibits B & D
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	Page 14 (II.D.3)
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	Page 14 (II.D.2); Exhibit C
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	Page 15 (II.D.4)
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	Page 3 (1.A)
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	Page 9 (II.A.3); Exhibit F

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 & 18-2.021	Page 1 (Executive Summary); Page 3 (I.A); Page 11 (II.B.3)
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	Page 3 (I.B); Page 11 (II.B.4); Page 15 (II.D.6); Page 16 (II.E.); Page 17 (III); Page 19 (IV); Page 27 (V); Page 31 (VI); Page 39 (VII)
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	Page 14 (II.D)

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	Page 1 (Executive Summary); Page 16 (II.E.1)
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	Page 18 (III.C-D); Exhibit H
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	Page 17 (II.E.6); Page 18 (III.C); Page 23 (IV.C.2); Page 38 (VI.F)
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	Page 3 (I.A)
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	Page 12 (II.B.5)
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	Page 15 (II.D.5); Exhibit T
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 & 18-2.021	Page 7 (I.C Goal 7); Page 19 (IV); Exhibits J & K
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.	18-2.021 & 253.036	Page 3 (I.A); Page 12 (II.B.4)
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	Page 34 (VI.C)
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	Page 14 (II.D.1)

*The following taken from 253.034(10) is not a land management plan requirement; however, it should be considered when developing a land management plan: The following additional uses of conservation lands acquired pursuant to the Florida Forever program and other state-funded conservation land purchase programs shall be authorized, upon a finding by the Board of Trustees, if they meet the criteria specified in paragraphs (a)-(e): water resource development projects, water supply development projects, storm-water management projects, linear facilities and sustainable agriculture and forestry. Such additional uses are authorized where: (a) Not inconsistent with the management plan for such lands; (b) Compatible with the natural ecosystem and resource values of such lands; (c) The proposed use is appropriately located on such lands and where due consideration is given to the use of other available lands; (d) The using entity reasonably compensates the titleholder for such use based upon an appropriate measure of value; and (e) The use is consistent with the public interest.

Section C: Public Involvement Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
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24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	Page 1 (Executive Summary); Page 16 (II.E.4); Exhibits S, T, U, W
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	Page 16 (II.E.4); Exhibit U
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Exhibit U
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 & 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	Page 16 (II.E.4); Exhibit S
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Exhibit S
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	Exhibit S

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	Page 19 (IV.A); Exhibit I
33	Insert FNAI based natural community maps when available.	ARC consensus	Exhibits L, P, Q
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	Page 22 (IV.C); Exhibits I, L, M
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 & 18-2.021	Page 26 (IV.G)
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	Page 26 (IV.E)
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 & 18-2.021	Page 26 (IV.F)

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 & 18-2.021	Page 24 (IV.C.4); Exhibits L, M
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	Page 22 (IV.C.1); Exhibits L, M
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	Page 23 (IV.C.2); Exhibits L, P, Q
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	Page 4 (I.C); Page 18 (III.C-D); Page 19 (IV); Page 31 (VI.A-B); Page 39 (VII)
42	Habitat Restoration and Improvement	259.032 & 253.034	Page 19 (IV)
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.	↓	Page 4 (I.C); Page 39 (VII)
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.		Page 4 (I.C)
42-C.	The associated measurable objectives to achieve the goals.		Page 4 (I.C)
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>		Page 4 (I.C); Page 31 (VI); Page 39 (VII)
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.		Page 13 (II.C.4)
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	Page 8 (II.A.2,4); Page 12 (II.C); Page 39 (VII); Exhibits E, I, L, P, S
44	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034 & 259.032 ↓	Page 31 (VI); Exhibit N
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 4 (I.C. Goal 1); Page 31 (VI); Page 39 (VII)
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 4 (I.C. Goal 1)
44-C.	Measurable objectives (see requirement for #42-C).		Page 4 (I.C. Goal 1)
44-D.	Related activities (see requirement for #42-D).		Page 31 (VI); Page 39 (VII)
44-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034 ↓	Page 22 (IV.C)
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 7 (I.C Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C Goal 4)
45-D.	Related activities (see requirement for #42-D).		Page 22 (IV.C.1); Page 39 (VII)
45-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

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	Page 25 (IV.C.6)
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	Page 25 (IV.C.6)
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. <i>See footnote.</i>	253.034	Page 35 (VI.D); Exhibit O
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	Exhibit W
48	Exotic and invasive species maintenance and control	259.032 & 253.034 ↓	Page 35 (VI.D)
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 7 (I.C Goal 5); Exhibit O
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C Goal 5)
48-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C Goal 5)
48-D.	Related activities (see requirement for #42-D).		Page 35 (VI.D,E); Page 39 (VII)
48-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

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 & 18-2.021	Page 12 (II.B.7)
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	Page 19 (IV.B); Exhibits J, K
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	Page 21 (IV.B.4)
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034	Page 19 (IV.B); Page 39 (VII)
53	Hydrological Preservation and Restoration	259.032 & 253.034 ↓	Page 19 (IV.B)
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 7 (I.C. Goal 7); Page 19 (IV.B)
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 7)
53-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 7)
53-D.	Related activities (see requirement for #42-D).		Page 7 (I.C. Goal 7); Page 19 (IV.B)
53-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

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 & per DHR's request	Page 17 (III.B); Exhibit G
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	Page 17 (III.B); Exhibit G
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	Page 18 (III.C,D); Exhibit H
57	Cultural and Historical Resources	259.032 & 253.034	Page 17 (III)
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 6)
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 6)
57-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 6)
57-D.	Related activities (see requirement for #42-D).		Page 18 (III.C,D)
57-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

**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	Page 12 (II.C); Exhibit D
59	Capital Facilities and Infrastructure	259.032 & 253.034	Page 12 (II.C.)
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-D.	Related activities (see requirement for #42-D).		Page 12 (II.C); Page 27 (V)
59-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	Page 27 (V); Exhibit D
61	Public Access and Recreational Opportunities	259.032 & 253.034	Page 27 (V)
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 5 (I.C. Goal 2)
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 2)
61-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 2)
61-D.	Related activities (see requirement for #42-D).		Page 12 (II.B.4); Page 17 (II.E.5,6); Exhibits A, B, C, D
61-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

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	Page 1 (Executive Summary)
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	Page 3 (I.B); Exhibit A
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	Page 4 (I.C.); Page 39 (VII)
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	Page 13 (II.C.4); Exhibit V
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	Page 13 (II.C.4); Exhibit V
68	A statement of gross income generated, net income and expenses.	18-2.018	Page 13 (II.C.4); Exhibit V

*** = 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.

TEN-YEAR LAND MANAGEMENT PLAN
FOR THE
INDIAN LAKE STATE FOREST
MARION COUNTY



PREPARED BY THE
FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
FLORIDA FOREST SERVICE

APPROVED ON
MONTH DD, 2023

TEN-YEAR LAND MANAGEMENT PLAN
FOR THE
INDIAN LAKE STATE FOREST



Approved by:

John Sabo, Interim Director
Florida Forest Service

Date

James Roberts, Chief
Forest Management Bureau

Date

**TEN-YEAR LAND MANAGEMENT PLAN
INDIAN LAKE STATE FOREST
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**TEN-YEAR LAND MANAGEMENT PLAN
INDIAN LAKE STATE FOREST
EXHIBITS**

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Optimal Management Boundary Map	Exhibit C
Facilities, Recreation, and Improvements Map	Exhibit D
Tract and Acreage Map.....	Exhibit E
Proximity to Significant Managed Lands	Exhibit F
Archaeological and Cultural Sites	Exhibit G
Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands	Exhibit H
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State Forest Management Plan Advisory Group Summary.....	Exhibit U
State Forest Summary Budget	Exhibit V
Arthropod Control Plan.....	Exhibit W
Florida Forever Project	Exhibit X

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service
COMMON NAME: Indian Lake State Forest
LOCATION: Marion County
ACREAGE TOTAL: 4,567.65 acres

Historic Natural Communities*	Approximate Acreage**
Sandhill	4,065
Mesic hammock	147
Mesic flatwoods	131
Baygall	66
Sandhill upland lake	18

Historic Natural Communities*	Approximate Acreage**
Basin swamp	17
Basin marsh	11
Depression marsh	8
Sinkhole	3
Xeric hammock	2

* Table excludes unmapped SJRWMD 102-acre parcel acquired November 2020

** Rounding errors exist

TIITF LEASE AGREEMENT NUMBER: 4577

USE: Single ____ Multiple X

MANAGEMENT AGENCY

Florida DACS, Florida Forest Service
Florida Fish and Wildlife Conservation Commission
St. Johns River Water Management District
Department of State, Division of Historical Resources

RESPONSIBILITY

General Forest Resource Management
Wildlife Resources and Laws
Water Resource Protection and Restoration
Historical and Archaeological Resource Management

DESIGNATED LAND USE:

Multiple-Use State Forest

SUBLEASES:

None

ENCUMBRANCES:

Existing water monitoring wells and related easements, existing electric supply and related easements, Marion County Parcel #14404-000-00 owned by SJRWMD

TYPES OF ACQUISITION:

Florida Forever and Marion County Funds, St. Johns River Water Management District.

UNIQUE FEATURES:

A deep sinkhole lake occurs on the property that drains into the Floridan Aquifer. A string of hat-rack cypress growing between Indian Lake Prairie and Indian Lake visually captures old Florida.

ARCHAEOLOGICAL / HISTORICAL:

Thirteen (13) known sites

MANAGEMENT NEEDS:

Restoration and maintenance of native ecosystems

ACQUISITION NEEDS:

13,663 Acres of Optimal Management Boundary including remainder of Heather Island / Ocklawaha River Florida Forever project, and portions of Indian Lake Prairie

SURPLUS ACREAGE:

None

PUBLIC INVOLVEMENT:

ILSF Liaison Committee, Marion County, Management Plan Advisory Group Public Hearing, State Forest Liaison Committee, Acquisition and Restoration Council - - - - -

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

ARC Approval Date: _____ TIITF Approval Date: _____

Comments: _____

I. Introduction

The Indian Lake State Forest (ILSF) is approximately 4,567 acres of rolling sandhills and old pastures just north of historic Silver Springs in Marion County. The forest is named after Indian Lake, a deep sinkhole lake that drains into the aquifer. This property was acquired in 2007 and 2008 under the Florida Forever program, with additional money from Marion County and assistance from The Nature Conservancy, Silver Springs Working Group, and the Florida Department of Environmental Protection (FDEP). ILSF is just a few miles from the heart of Ocala.

While ILSF is dominated by rolling sandhills on a sinkhole-rich karst topography, other natural community types include depression marsh, xeric hammock, and mesic flatwoods.

A. General Mission and Management Plan Direction

The primary mission of the Florida Forest Service (FFS) is to “protect Florida and its people from the dangers of wildland fire and manage the ILSF resources through a stewardship ethic to assure they are available for future generations.”

Management strategies for ILSF emphasize the multiple-use concept, as defined in sections 253.034(2)(a) and 589.04(3), Florida Statutes (F.S.). Implementation of this concept will utilize and conserve State Forest resources in a harmonious and coordinated combination that will best serve the people of the State of Florida, and that is consistent with the purpose for which ILSF was acquired. Multiple-use management for ILSF will be accomplished with the following strategies:

- Practice sustainable forest management for the efficient generation of revenue and in support of State Forest management objectives;
- Provide for resource-based outdoor recreational opportunities for multiple interests;
- Restore and manage healthy forests and native ecosystems ensuring the long-term viability of populations and species listed as endangered, threatened, or rare, and other components of biological diversity, including game and non-game wildlife, and plants;
- Protect known archaeological, historical, and cultural resources;
- Restore, maintain, and protect hydrological functions, related water resources, and the health of associated wetlands and aquatic communities; and
- Provide research and educational opportunities related to natural resource management.

This management plan is provided according to requirements of Sections 253.034, 259.032, and 373, F.S., and was prepared utilizing guidelines outlined in Section 18-2.021 of the Florida Administrative Code, F.A.C. It is not an annual work plan or detailed operational plan but provides general guidance for the management of ILSF for the next ten-year period and outlines the major concepts that will guide management activities on ILSF.

B. Past Accomplishments

Data regarding past management activities and public use on the ILSF have been compiled monthly and are available from the ILSF manager. A table has been prepared for this plan that summarizes the accomplishments for each of the past 10 years. See Exhibit A. The table does not attempt to account for all activities on ILSF, but summarizes major activities. It does not list the multitude of daily activities and public interactions involved in managing ILSF. Since the approval of the previous management plan in 2011, there have been numerous events,

developments, and accomplishments. Among the most notable have been the following:

- Forest Management
 - Conducted annual forest inventory
 - Planted 65,340 containerized longleaf pines on 570 acres
 - Harvested 4,317.19 tons of timber from approximately 180 acres
 - Monitored 13 archaeological or historical sites
- Fire Management
 - Conducted 45 prescribed burns on 9,383 acres
 - Maintained 514 miles of firelines
- Road / Boundary Management
 - Improved or rebuilt 13 miles of forest roads
 - Maintained 26 miles of forest boundary
- Recreation Management
 - Hosted more than 148,571 day-use forest visits
 - Hosted more than 3,097 overnight primitive camping visits
 - Administered 25 State Forest use permits
- Biological Management
 - Actively controlled 12 invasive plant species on 787 acres
 - Monitored for presence of feral hogs
 - FWC completed gopher tortoise survey in 2018
- Education / Public Outreach
 - Hosted ten (10) forest-related program events (local school programs, clubs, and professional groups)
 - Produced one (1) radio, television, and / or print article featuring forest activities
 - Supported three (3) research and / or specimen collection projects

C. Goals / Objectives for the Next Ten-Year Period

The following goals and objectives provide direction and focus of management resources for the next ten-year planning period. Funding, agency program priorities, and the potential for wildfire or other natural disasters during the planning period will determine the degree to which these objectives can be met. Management activities on ILSF during this period must conserve, protect, utilize, and enhance the natural and historical resources and manage resource-based public outdoor recreation, which is compatible with the conservation and protection of this forest. Most of the management operations will be conducted by the FFS, although appropriate activities will be contracted to private sector vendors or completed with the cooperation of other agencies. All activities will enhance the property's natural resource or public recreation value.

The management activities listed below will be addressed within the ten-year management period and are defined as short-term goals, long-term goals, or ongoing goals. Short-term goals are goals that are achievable within a two-year planning period, and long-term goals are achievable within a ten-year planning period. Objectives are listed in priority order for each

goal. Other activities will be completed with minimal overhead expense and existing staff.

➤ **GOAL 1: Sustainable Forest Management**

Objective 1: Continue to update and implement the Five-Year Silviculture Action Plan including reforestation, timber harvesting, prescribed burning, restoration, and timber stand improvement activities and goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Silviculture Action Plan completed
- Continued implementation of the Five-Year Silviculture Action Plan (acres treated)

Objective 2: Continue to implement the FFS process for developing stand descriptions and conducting forest inventory, including maintaining a GIS database containing forest stands, roads, and other attributes (including, but not limited to: rare, threatened, and endangered species, archaeological and historical resources, and non-native, invasive species locations). (Ongoing objective)

Performance Measures:

- Update GIS database and re-inventory all attributes as required by FFS procedures
- Number of acres inventoried

➤ **GOAL 2: Public Access and Recreation Opportunities**

Objective 1: Maintain public access and recreation activities that are compatible with multiple-use management. (Ongoing objective)

Performance Measure: Number of visitor opportunities per day

Objective 2: Continue to safely integrate human use into ILSF, following the Five-Year Outdoor Recreation Plan, and update annually. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Outdoor Recreation Plan
- Annual updates of the Five-Year Outdoor Recreation Plan completed

Objective 3: Continue to involve and meet with the Liaison Committee. The purpose of Liaison Committee meetings is to facilitate communication between the FFS and committee members (and the groups they represent) about State Forest management and to obtain feedback from these entities. The Liaison Committee consists of local residents, community leaders, special interest group representatives (vendors, hunters and other recreational users, etc.), environmental group representatives, and other public / private entities. (Ongoing objective)

Performance Measures:

- Liaison Committee remains organized
- Annual meetings continue

Objective 4: Maintain cooperation with Florida Fish and Wildlife Conservation Commission (FWC) to develop specific hunting season quotas and bag limits, and to address hunting issues which are to be agreed upon at an annual cooperator meeting between FFS and FWC. (Ongoing objective)

Performance Measures:

- Annual letter on agreed-upon hunting issues
- Updated rules posted and WMA brochures available online at MyFWC.com

Objective 5: Evaluate the potential for additional public access and recreation areas on ILSF that are compatible with multiple-use management. Recreation opportunities will fall under the scope of multiple-use management in accordance with watershed protection, conservation, and ecosystem restoration; and as detailed in the purpose for acquisition. (Short-term objective)

Performance Measure: List of viable access points and visitor opportunities for consideration.

Objective 6: Recruit volunteers and volunteer organizations to assist with recreation and / or resource management. (Ongoing objective)

Performance Measures:

- Number of volunteers and organizations that assist with projects
- Number of hours provided by volunteers

➤ **GOAL 3: Habitat Restoration, Improvement, and Fire Management**

Objective 1: The ILSF currently contains approximately 2,800 acres of fire-dependent communities. ILSF staff will plan and conduct prescribed burns in a manner that benefits these fire-dependent natural communities within the forest. To achieve an average fire-return interval of two (2) to four (4) years for most fire-dependent communities, FFS will attempt to conduct prescribed burns on an average of approximately 700 to 1,400 acres per year. Currently, FFS staff estimates 2,500 acres at ILSF are within the desired fire-return interval. (Ongoing objective)

Performance Measures:

- Annual number of acres burned
- Number of acres burned within target fire-return interval

Objective 2: Continue to annually update and implement the Five-Year Prescribed Burning Management Plan and the prescribed burning goals. (Ongoing objective)

Performance Measures:

- Annual updates of the Five-Year Prescribed Burning Management Plan completed
- Continued implementation of the Five-Year Prescribed Burning Management Plan (acres treated)

Objective 3: Reduce the threat of wildfire within the wildland urban interface on ILSF and the surrounding community through a comprehensive mitigation strategy that includes evaluating vegetative fuels near residential areas and identifying potential fuel reduction projects. (Ongoing objective)

Performance Measures:

- Evaluations complete
- Should the evaluations determine that fuel reduction is necessary, number of acres treated for fuel reduction

Objective 4: Utilize prescribed fire to enhance restoration of native groundcover. Evaluate areas where native groundcover has been eliminated or heavily impacted from historical land

use on a case by case basis for alternative methods to address reestablishment of native groundcover. Restore native groundcover from historical land use where practical or heavily impacted. (Long-term objective)

Performance Measure: Number of acres restored

➤ **GOAL 4: Listed and Rare Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration**

Objective 1: In cooperation with FWC, develop a Wildlife Management Strategy addressing wildlife species for ILSF, with emphasis on imperiled species and associated management prescriptions for their habitats. (Ongoing objective)

Performance Measures:

- Imperiled species management strategy completed
- Baseline listed and rare species list completed for ILSF

Objective 2: In consultation with FWC, implement survey and monitoring protocols, where feasible, for listed and rare species. (Ongoing objective)

Performance Measure: Number of species for which monitoring is ongoing

➤ **GOAL 5: Non-native Invasive Species Management and Control**

Objective 1: Continue to follow and annually update the Five-Year Ecological Plan for ILSF, to locate, identify, and control non-native invasive species. (Ongoing objective)

Performance Measures:

- Total number of acres identified and successfully treated
- Annual updates of the Five-Year Ecological Plan completed
- Continue to maintain ILSF non-native invasive database information annually

➤ **GOAL 6: Cultural and Historical Resource Management**

Objective 1: Ensure all known cultural and historical sites are recorded in the Department of State, Division of Historical Resources (DHR) Florida Master Site File. (Ongoing objective)

Performance Measure: Documentation of known sites

Objective 2: Monitor recorded sites and send updates to the DHR Florida Master Site File as needed. (Ongoing objective)

Performance Measure: Number of sites monitored. Reports submitted to DHR

Objective 3: Maintain at least one (1) qualified staff member as an Archaeological Resource Management (ARM) Monitor. (Ongoing objective)

Performance Measure: Number of local staff trained as ARM monitors

➤ **GOAL 7: Hydrological Preservation and Restoration**

Objective 1: Protect water resources during management activities through the implementation of all applicable Silviculture Best Management Practices (BMPs). (Ongoing objective)

Performance Measure: Percent compliance with Silviculture BMPs

Objective 2: Conduct or obtain a site assessment / study to identify potential hydrological restoration needs. (Short-term objective)

Performance Measure: Assessment conducted

Objective 3: Close, rehabilitate, or restore roads, fire lines, and trails that are causing hydrologic alterations or negatively impacting water quality. (Ongoing objective)

Performance Measure: Total number of roads, firelines, and trails closed, rehabilitated, and / or restored

➤ **GOAL 8: Capital Facilities and Infrastructure**

Objective 1: ILSF staff, along with help from volunteers and / or user groups, will continue maintenance of Office / Visitor center, two (2) picnic pavilions, two (2) vault bathrooms, five (5) primitive and five (5) planned RV camping sites, two (2) trailheads with parking areas, 14 miles of trails, and one (1) mile of primary road. (Ongoing objective)

Performance Measure:

- The number of existing facilities, miles of roads, and miles of trails maintained

Objective 2: Continue to follow the Five-Year Roads and Bridges Management Plan and update annually. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Roads and Bridges Management Plan
- Annual updates of the Five-Year Roads and Bridges Management Plan completed

Objective 3: Continue to implement the Five-Year Boundary Survey and Maintenance Management Plan and update annually. Approximately 20% of ILSF boundary will be evaluated and remarked annually as necessary, which includes harrowing, reposting signage, and repainting boundary trees. (Ongoing objective)

Performance Measures:

- Continued implementation of the Five-Year Boundary Survey and Maintenance Management Plan
- Percentage of forest boundary maintained each year
- Annual updates of the Five-Year Boundary Survey and Maintenance Management Plan completed

II. Administration Section

A. Descriptive Information

1. Common Name of Property

The common name of the property is Indian Lake State Forest.

2. Legal Description and Acreage

The total acreage of ILSF is 4,567.65 acres. The property is located in all or part of Sections 11, 12, 13, 14, 22, 23, 24, 25, 26, 27, and 36 of Township 14 south, Range 22 and also Sections 7, 18, and 19 of Township 14 South, Range 23 East, Marion County, Florida. ILSF's tracts and acreage are shown in Exhibit E. Acreage acquired by funding source is identified in Table 1.

Table 1. ILSF Acreage by Funding Source

Funding Source	Acres
Florida Forever	4,461.04
FFS Florida Forever	2.63
MG Parcel*	102.00

* SJRWMD-owned

A complete legal description of lands owned by the Board of Trustees of the Internal Improvement Trust Fund (TIITF) is on record at the Indian Lake Forestry Station Office, FDEP, Division of State Lands in Tallahassee, and the FFS State Office in Tallahassee.

3. **Proximity to Other Public Resources**

Lands managed by state, federal, or local governments for conservation of natural or cultural resources that are located within approximately 12 miles of the ILSF are included in Exhibit F and Table 2.

Table 2. Nearby Public Conservation Land and Easements

Tract	Agency	Distance
Silver Springs Forest Conservation Area	SJRWMD	Adjacent
Silver Springs Sandhill	Marion County	Adjacent
Silver Springs Archery	Marion County	Adjacent
Marjorie Harris Carr Cross Florida Greenway	DRP	0.1 miles S
Coehadjoe Park	Marion County	3 miles S
Silver Springs Conservation Area	Marion County	4 miles S
Silver Springs State Park	DRP	4 miles S
Fort King Property	City of Ocala	5 miles S
Heritage Nature Conservancy	City of Ocala	5 miles S
Ocala National Forest	USFS	7 miles E
Black Sink Prairie	SJRWMD	9 miles N
Scott Spring / Celebration 2000 Community Park	City of Ocala	9 miles SW
Ocklawaha Prairie Restoration Area	SJRWMD	12 miles SE
Orange Creek Restoration Area	SJRWMD	12 miles N

DRP – Florida Division of Recreation and Parks

SJRWMD – St. Johns River Water Management District

USFS – US Forest Service

4. **Property Acquisition and Land Use Considerations**

The property was acquired by the TIITF in July 2007 from Avatar Properties, Inc. (API) as part of the Florida Forever’s statewide “Florida’s First Magnitude Springs” project. The project was established in 1990 and amended in 2003 to include the addition known as the “Silver Springs Addition.” The portion of the Silver Springs Addition located just north of the 530-million gallon per day Silver Springs, and comprised of approximately 4,452 acres of land, was planned by API for the development of a strip mall and a 13,000-unit residential subdivision. As the development was slated for the Silver Springs recharge area, the purchase was sponsored by the Silver Springs Basin Working Group in an effort to protect the integrity of this sensitive recharge area. The purchase agreement was facilitated through

The Nature Conservancy who made the initial purchase directly from API in December 2006 and subsequently sold it to the TIITF over the course of two state budget funding cycles. In addition, Marion County assisted in the acquisition through a substantial contribution of \$2,500,000 towards the purchase price and closing costs. This contribution was made with conveyance of no title interest. In Resolution No. 06-R-524, adopted in November 2006, Marion County defined the intent of their participation in the public acquisition was to "benefit the people of Marion County by preserving from residential development, and placing [the property] in public hands for perpetual conservation, the habitat of rare and threatened wildlife, archaeological and historic sites, and the watershed of Silver Springs and the Silver River, which are valuable resources and areas of scenic beauty of this State."

On November 10, 2020 FFS entered into an Intergovernmental Agreement (FDACS Contract #027406) with SJRWMD to manage the 102-acre SJRWMD-owned MG parcel as part of Indian Lake State Forest.

Table 3. Parcel Acquisition

Parcel Name	Deed Date	Acres
Avatar Tract Phase I	12/22/2006	2,661.11
Avatar Tract Phase II	7/23/2007	1,799.93
FFS Florida Forever (13 parcels)	1/4/2010 – 11/5/2011	2.63
Donation	8/3/2011	2.42
MG Parcel*	11/10/2020	102.00

* SJRWMD-owned

B. Management Authority, Purpose, and Constraints

1. Purpose for Acquisition / Management Prospectus

Because of the thick, water-filled limestone underlying it, Florida alone has more large springs than any other country in the world. Springs which discharge an average of 100 cubic feet of water per second or more are called first-magnitude springs. The 33 recognized springs in Florida are scattered in the northern peninsula and the eastern panhandle where the limestone of the Floridan Aquifer arches close to the surface. Each day, these 33 springs across the State generate more drinking water than is consumed by Floridians. The springs, with generally clear and continuously flowing waters, are among Florida's most important natural resources.

On December 7, 1990, the Land Acquisition Advisory Council (LAAC) added the Florida's First Magnitude Springs – Phase I project to Florida's Conservation and Recreation Lands (CARL) priority list. This fee-simple acquisition, sponsored by the Department of Environmental Regulations, consisted of approximately 2,907 acres, 36 landowners, and 136 parcels. Five springs made up the project: Falmouth Spring, Fanning Springs, Gainer Springs, River Sink Spring, and St. Marks Springs.

On December 10, 1992, the LAAC approved Phase II that added three springs: Jackson Blue Springs, Troy Spring, and Weeki Wachee Springs. On December 10, 1992, the LAAC also approved the Gainer Springs Expansion and combined it with the Gainer Springs site.

On April 18, 2003, the Acquisition and Restoration Council (ARC) approved a fee-simple, 4,552-acre addition (Silver Springs Addition) north of Silver Springs in Marion County to the project boundary. The addition was sponsored by the Silver Springs Basin Working Group, and consisted of one landowner, Avatar Properties Inc.

The purposes identified by the Florida's First Magnitude Springs Florida Forever program (Exhibit R), including the ILSF site are:

“Large springs of clear, continuously flowing water are among Florida’s most famous and important natural and recreation resources. The cavernous, water-filled rocks of the Floridan Aquifer supply the largest springs. By preserving land around springs, this project will protect them; and the Floridan Aquifer; from the effects of commercial, residential, and agricultural runoff; clearcutting and mining; and unsupervised recreation. This project will ensure that Floridians and visitors from all over the world will be able to enjoy Florida springs for years to come.”

In addition, Florida Forever acquisitions have as their general purpose:

- To conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area;
- To conserve and protect native species habitat or endangered or threatened species;
- To conserve, protect, manage, or restore important ecosystems, landscapes, and forests, if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, recreation, and timber resources, or to protect fish or wildlife resources which cannot otherwise be accomplished through local and state regulatory programs;
- To provide areas, including recreation trails, for natural resource-based recreation; and
- To preserve archaeological or historic sites.

2. Degree of Title Interest Held by the Board

The TIITF holds fee simple title to the 4,567.65 acres of ILSF under Lease Agreement No. 4577. The St. Johns River Water Management District (SJRWMD) holds a portion of the fee simple title to 102 acres.

3. Designated Single or Multiple-Use Management

ILSF is managed under a multiple-use concept by the FFS, under the authority of Chapters 253 and 589, F.S. The FFS is the lead managing agency as stated in Management Lease No. 4577.

Multiple-use management is the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, and water resources so they are utilized in the combination that will best serve the people of the state, making the most judicious use of the land for some or all these resources and considering the relative values of the various resources. Local demands, acquisition objectives, and other factors influence the array of uses that are compatible with and allowed on any specific area of ILSF. This management approach is

believed to provide for the greatest public benefit, by allowing compatible uses while protecting overall forest health, native ecosystems, and the functions and values associated with them.

4. Revenue Producing Activities

Numerous activities on ILSF provide for multiple uses, as well as generate revenue to offset management costs. Revenue-producing activities will be considered when they have been determined to be financially feasible and will not adversely impact management of ILSF. Current and potential revenue producing activities for the ILSF include, but are not limited to:

- Timber Harvests – Timber harvests on ILSF will be conducted to improve forest health, promote wildlife habitat, restore plant communities, and provide additional benefits.
- Recreation Fees – Fees are currently collected for campgrounds, and vendor / special use permits.
- Apiary Leases – There are currently no apiary lease sites on ILSF.
- Firewood Sales– Permits are sold for the cutting and collection of firewood in designated areas of ILSF where past fire suppression has led to severe oak encroachment.
- Miscellaneous Forest Product Sales – Other miscellaneous forest product sales, including but not limited to, palm fronds and berries, pine cones, and pine straw, may be considered.

5. Conformation to State Lands Management Plan

Management of ILSF under the multiple-use concept complies with the State Lands Management Plan and provides optimum balanced public utilization of the property. Specific authority for the FFS's management of public land is derived from Chapters 253, 259, and 589 F.S.

6. Legislative or Executive Constraints

There are no known legislative or executive constraints specifically directed toward ILSF.

FFS makes every effort to comply with applicable statutes, rules, and ordinances when managing ILSF. For example, when public facilities are developed on State Forests, every effort is made to comply with Public Law 101-336, the Americans with Disabilities Act. As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions (e.g., where handicap access is structurally impractical or where providing such access would change the fundamental character of the facility being provided).

7. Aquatic Preserve / Area of Critical State Concern

This area is not within an aquatic preserve or an area of critical state concern, nor is it in an area under study for such designation.

C. Capital Facilities and Infrastructure

1. Property Boundaries Establishment and Preservation

ILSF boundaries, 28 miles in total, are managed by State Forest personnel in accordance with the guidelines of the State Forest Handbook. There are 25 gates throughout ILSF that require

periodic maintenance. State Forest boundaries are maintained by periodic clearing, repainting and reposting, and placement of State Forest boundary signs by FFS personnel.

2. Improvements

Major FFS facilities on ILSF include the Forestry Station office / visitor center and equipment maintenance / storage shops. Major recreation facilities include the Indian Lake Recreation Area, Equestrian Trailhead, and picnic pavilions. See Exhibit D for a map of the buildings and improvements at ILSF.

Buildings / Recreation infrastructure present on the ILSF include:

- Office / visitor center, 2,000 sq. ft.
- Two (2) Public restrooms, 300 sq. ft.
- Shop building, 3,000 sq. ft.

3. On-Site Housing

There are no residences on ILSF.

FFS may establish on-site housing (mobile / manufactured home) on ILSF if deemed necessary to alleviate security and management issues. The need and feasibility for ILSF will be evaluated and established if considered appropriate by the Center Manager and approved by the FFS Director. Prior to the occurrence of any ground disturbing activity for establishing on-site housing, a notification will be sent to the DHR and Florida Natural Areas Inventory (FNAI) for review and recommendations. This type of housing will not exceed three homes per location with the possibility of more than one on-site housing location occurring if considered necessary by the Center Manager and approved by the Director.

4. Operations Infrastructure

a. Operations Budget

For Fiscal Year 2021-2022 the total operating budget for ILSF was \$16,261. This amount includes, expenses, contractual services, Other Personal Services Employment (OPS), etc. A summary budget for ILSF is contained in Exhibit V. Implementation of any of the activities within this management plan is contingent on availability of funding, other resources, and other statewide priorities.

b. Equipment

To carry out the mission of the FFS, equipment assigned to the ILSF includes: one (1) pickup truck, one (1) ATV, one (1) UTV, one (1) farm tractor, one (1) front-end loader, one (1) lawn mower, and eight (8) attachments for the farm tractors.

c. Staffing

One (1) Forester is assigned to ILSF who also has duties on Ross Prairie State Forest. Other personnel from the Waccasassa Forestry Center are occasionally used to assist with management activities at ILSF.

The Forester will work to achieve the goals outlined in this management plan. Recreation planning and management activities as well as resource management and planning activities,

such as trail flagging / identification, recreation facility placement, timber cruising, and sale administration, etc., are the responsibility of the Forester under the direction of the Resource Administrator and Center Manager. Forest operations, such as road maintenance, operations / recreation facility maintenance, prescribed burning, etc., are the responsibility of the Forest Area Supervisor under the direction of the Operations Administrator and Center Manager.

To supplement the staff assigned to ILSF, the Resource Administrator is responsible for recruiting interested volunteers who can bring needed experience and skills to assist with the management of the ILSF recreation program, as well as resource management activities. The Waccasassa Forestry Center Recreation Coordinator assists at ILSF and is directed by the Resource Administrator.

Additionally, a State Forest Liaison Committee comprised of private citizens and representatives of forest user groups meets bi-annually to provide input on forest management activities and share ideas with FFS staff to improve the State Forest. oversee

D. Additional Acquisitions and Land Use Considerations

1. Alternate Uses Considered

No alternate uses are being considered at this time. Alternate uses will be considered as requests are made and will be accommodated as appropriate if they are determined to be compatible with existing uses and with the management goals and objectives of ILSF. Uses determined as incompatible include but are not limited to: water resource development projects, water supply projects, storm-water management projects, sewage treatment facilities, linear facilities, off highway vehicle use, dumping, mining, and oil well stimulation (e.g. hydraulic fracturing / fracking), or as determined by law, regulation, or other incompatible uses as described elsewhere in the management plan. Deadhead logging is not compatible with nor considered an appropriate use within or adjacent to ILSF boundaries. Although no water resources projects are being considered at this time on SJRWMD-owned lands within ILSF, they should not be precluded.

2. Additional Land Needs

Purchasing of additional land within the optimal management boundary would facilitate restoration, protection, maintenance, and management of the natural resources on ILSF. The Heather Island / Ocklawaha River Florida Forever project is located east of ILSF. If acquired, this area would be managed as part of ILSF connecting the forest with existing public conservation lands, corridors for wildlife dispersal, preservation of habitat for rare species, and floodplain protection. See Exhibit X.

There is an undeveloped platted subdivision (Silver Springs Park) inholding with a number of small privately-owned parcels scattered throughout which should receive priority for acquisition because they would benefit the management of the property. These parcels are located in Section 26, township 14 South, Range 22 East. The FFS will work with these property owners, on a willing seller basis, to acquire these parcels. See Exhibit C.

3. Surplus Land Assessment

On conservation lands where FFS is the lead manager, FFS assesses and identifies areas for

potential surplus land. This assessment consists of an examination of resource and operational management needs, public access and recreational use, and GIS modeling and analysis.

The evaluation of ILSF by FFS has determined that all of the forest is being managed and operated for the original purposes of acquisition, as well as center on the multiple-use concept, as defined in sections 589.04(3) and 253.034(2)(a) F.S. Implementation of this concept will utilize and conserve State Forest resources in a harmonious and coordinated combination that will best serve the people of the State of Florida. Therefore, no portion of the ILSF is recommended for potential surplus.

4. Adjacent Conflicting Uses

There are no known inholdings with conflicting uses.

FFS will cooperate with adjacent property owners, prospective owners, or prospective developers to discuss methods to minimize negative impacts on management, resources, facilities, roads, recreation, etc., and discuss ways to minimize encroachment onto ILSF.

ILSF is fragmented by several highly traveled roads, including State Road 326 and Baseline Road (County Road 35). These roads are a primary consideration when planning and conducting prescribed burns due to smoke management concerns.

5. Compliance with Local Comprehensive Plan

This plan was submitted to the Planning Division of the Marion County Growth Services Department for review and compliance with its local comprehensive plan. See Exhibit T.

6. Utility Corridors and Easements

FFS does not favor the fragmentation of natural communities with linear facilities. Consequently, easements for such uses will be discouraged to the greatest extent practical. The FFS does not consider ILSF suitable for any new linear facilities.

When such encroachments are unavoidable, previously disturbed sites will be the preferred location. The objectives, when identifying possible locations for new linear facilities, will be to minimize damage to sensitive resources (e.g., listed species and archaeological sites), minimize habitat fragmentation, limit disruption of management activities, including prescribed burns, and limit disruption of resource-based multiple use activities such as recreation.

ILSF has four in-holdings with ingress and egress access easements: a 40 acre parcel, a developed lot in the Silver Springs Park Addition, and two cemeteries. The Ocala Springs Elementary School is on an inholding, but has frontage along NE 40th Avenue Road.

Collocation of new linear facilities with existing corridors will be considered but will be used only where expansion of existing corridors does not increase the level of habitat fragmentation and disruption of management and multiple-use activities. FFS will further encourage the use of underground cables where scenic considerations are desirable as well

as encourage the development of use of wildlife crossings for unavoidable roadway development projects. Easements for such utilities are subject to the review and approval of the TIITF and the SJRWMD. Requests for linear facility uses will be handled according to the Governor and the Cabinet's linear facilities policy.

E. Agency and Public Involvement

1. Responsibilities of Managing Agencies

FFS is the lead managing agency, responsible for overall forest management and public recreation activities, as stated in TIITF Management Lease No. 4577. Pursuant to the management lease, the lead managing agency may enter into further agreements or to subleases on any part of ILSF.

FFS will cooperate with the DHR regarding appropriate management practices on historical or archaeological sites on the property as stated in Section 267.061, F.S. FFS will consult DHR prior to the initiation of ground disturbing activities as required per DHR guidelines.

2. Law Enforcement

Primary law enforcement responsibilities will be handled by FWC law enforcement officers. Rules governing the use of ILSF are stated in Chapter 5I-4, F.A.C. FWC will enforce fish and wildlife regulations and aid in enforcing State Forest rules. FWC does not currently have an officer dedicated to patrolling and enforcement on ILSF. This task is shared among multiple FWC officers who also patrol and enforce laws on properties and waterways outside of ILSF.

The FDACS Office of Agricultural Law Enforcement (OALE) will assist with open burning and wildfire investigations as needed. The Marion County Sheriff's Office provides additional assistance as needed.

Special rules under Chapter 5I-4, F.A.C. were promulgated for FDACS-FFS to manage the use of state lands and better control traffic, and to oversee camping and other uses on ILSF.

3. Wildland Fire

The FFS has the primary responsibility for prevention, detection, and suppression of wildfires wherever they may occur. The FFS shall provide leadership and direction in the evaluation, coordination, allocation of resources, and monitoring of wildfire management and protection (590.01, F.S.). The FFS also has the responsibility of authorizing prescribed burns (590.02 [1][i], F.S.).

4. Public and Local Government Involvement

This plan has been prepared by FFS and will be carried out primarily by the FFS. FFS responds to public involvement through liaison committees, management plan advisory groups, public hearings, and through ongoing direct contact with user groups. Land Management Review Teams, as coordinated by the Division of State Lands, have conducted reviews of management plan implementation in 2013 and 2017. See Exhibit S. The review team's recommendations were addressed in this plan, as appropriate.

The plan was developed with input from the ILSF Management Plan Advisory Group and

was reviewed at a public hearing on January 25, 2023. A summary of the advisory group's meetings and discussions, as well as written comments received on the plan, are included in Exhibit U. The ARC public hearing and meeting serve as an additional forum for public input and review of the plan.

5. Volunteers

Volunteers are important assets to ILSF. Volunteer activities may occur as one-time events or in association with long-term recurring projects and routine maintenance. Additional volunteer recruitment will continue to assist furthering the FFS's mission.

6. Friends of Florida State Forests

Friends of Florida State Forests, Inc. (FFSF) is a Direct Support Organization of the Florida Forest Service. FFSF supports management activities and projects on Florida's State Forests. FFSF is established by Florida Statute, supports programs within Florida's State Forests and is governed by a board of directors representing all areas of the state. Through community support, FFSF assists the FFS to expand opportunities for recreation, environmental education, fire prevention, and forest management within Florida's State Forests.

The FFSF program is referenced in Chapter 589.012, F.S. For more information visit: www.floridastateforests.org.

III. Archaeological / Cultural Resources and Protection

A. Past Uses

Prior to state ownership, ILSF was known as the Avatar Tract and was owned for about 30 years by API, a real estate development company. API leased this property for farming, hay and sod production, and cattle grazing many years before the state purchase. A developed campground (Ocala Springs RV Park), comprising of approximately 40 acres, was located near the shore of Indian Lake, and is currently abandoned.

B. Archaeological and Historical Resources

A review of information contained in the Florida Department of State, DHR, Florida Master Site File has determined there are 11 recorded archaeological sites and 2 historical cemeteries within the designated area for ILSF. Currently, none of the known sites on ILSF are listed in the National Register of Historic Places and none are eligible. See Table 4 and Exhibit G for a cultural resource roster.

Table 4. Historical Sites on ILSF

Site ID	Site Name	Site Type
MR01062	F46	AR
MR03292	Mt. Olive Cemetery	CM
MR03293	Indian Lake Cemetery	CM
MR03295	Indian Lake East	AR
MR03296	Indian Lake South	AR
MR03297	Indian Lake Prairie East	AR
MR03298	Indian Lake Northwest	AR
MR03299	Indian Lake North	AR

Site ID	Site Name	Site Type
MR03300	Indian Lake Camp Northeast	AR
MR03301	Straight Knoll	AR
MR03302	Mt. Olive Sinkhole	AR
MR03303	Indian Lake Camp Southeast	AR
MR03305	North of Cemetery	AR

AR – Archaeological Site

CM – Historical Cemetery

Sensitive Areas maps are provided to personnel to help identify locations where protection is critical. Periodic monitoring by staff and law enforcement is also important to protection efforts. Where cultural sites are part of current or future public use areas and DHR approves, interpretation may be utilized to inform and educate the public.

C. Ground Disturbing Activities

Representatives of DHR and FNAI will be consulted prior to the initiation of proposed ground disturbing activity as required per DHR guidelines. FFS will make every effort to protect known archaeological and historical resources. FFS will follow the “Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands” and will comply with all appropriate provisions of Section 267.061(2)(a,b), F.S. See Exhibit H. Any significant ground disturbing activity proposal will be submitted to DHR’s Compliance and Review office for review prior to undertakings and allow the Division a reasonable opportunity to comment. Ground disturbing activities not specifically covered by this plan will be conducted under the parameters of the Interim Management Guidelines.

D. Survey and Monitoring

Currently three (3) local district FFS staff are trained by DHR as Archaeological Resource Management (ARM) monitors. The Waccasassa Forestry Center Recreation Coordinator is trained as an archaeological monitor and serves as the primary contact for historical issues. FFS will pursue opportunities for additional personnel to receive ARM Monitor training to facilitate protection of cultural resources. FFS will consult with public lands archaeologists at DHR as necessary to determine an appropriate priority and frequency of monitoring at each of the listed sites, and any protection measures that might be required. Unless required on a more frequent basis, all archaeological and historical sites within the State Forest will be monitored at least annually. FFS field staff will monitor the listed sites to note condition and any existing or potential threats.

Any known archaeological and historical sites will be identified on maps to aid State Forest personnel and if necessary, law enforcement personnel in patrolling and protecting sites. Applicable surveys will be conducted by ARM monitors or contracted archaeologists during the process of planning and implementing multiple-use management activities. FFS personnel will remain alert for any environmentally significant resource discoveries and protective actions will be taken as necessary. In addition, FFS will seek the advice and recommendations of DHR regarding any additional archaeological survey needs. Trained monitors may oversee limited types of ground disturbing activities in which DHR recommends monitoring. FFS will utilize the services of DHR Public Lands archaeologists, when available, to locate and evaluate unknown resources, and to make recommendations in the management of known resources.

IV. Natural Resources and Protection

The primary purpose for FFS management of ILSF is protection of the land around the Floridan Aquifer and Florida's natural springs through a stewardship ethic to assure these resources will be available for future generations. Management activities will be executed in a manner to minimize soil erosion and maintain and protect / enhance the hydrological resources on ILSF. If problems arise, corrective action will be implemented by FFS staff under the direction of FFS's Forest Hydrology Section. Efforts will be made to monitor and protect ILSF's waterbodies and their associated water quality and native plants and animals.

ILSF falls within the jurisdiction of the SJRWMD. FFS will coordinate with SJRWMD and / or FDEP, as necessary, on activities pertaining to water resource protection and management. Any activities requiring water management district permits will be handled accordingly. FFS will work with SJRWMD to ensure that levels and quality of ground and surface water resources are appropriately monitored.

A. Soils and Geologic Resources

1. Resources

Soil information for ILSF was obtained from the United States Department of Agriculture Natural Resources Conservation Service (NRCS). The major soils listed by the NRCS include: Candler sand, Arredondo sand, Adamsville sand, and Lynne sand. Detailed information on all soils present on ILSF may be found in Exhibit I.

2. Soil Protection

Management activities will be executed in a manner that minimizes negative impacts to the soil. As problems arise, corrective action will be implemented by FFS staff under the direction of the FFS Forest Hydrology Section in conjunction with recommendations as contained in the most current version of the Florida Silviculture BMP Manual.

Currently there are no major or significant soil erosion problems on ILSF.

B. Water Resources

The water resources on ILSF perform essential roles in the protection of water quality, groundwater recharge, flood control, and aquatic habitat preservation. In the interest of maintaining these valuable resource functions, State Forest management personnel will work with the FFS Hydrology Section to incorporate wetlands restoration into the overall resource management program as opportunities arise, particularly where wetlands systems have been impaired or negatively impacted by previous management activities or natural disasters. See Exhibit K for map of the water resources on ILSF.

ILSF is critical to Silver Springs because it lies within its two-year and ten-year recharge areas (Shoemaker et al. 2004, Pandion Systems 2006, Phelps 2004, Phelps 2006). ILSF comprises roughly 4,500 acres of vital recharge area for this major Florida spring system. Hydrological modeling was used by SJRWMD and FDEP to calculate the two-year, ten-year and 100-year recharge areas of Silver Springs. Water from local rainfall infiltrates into the ground via these recharge areas and then flows underground through porous limestone to Silver Springs, one of the largest first magnitude springs in the nation, and the second-largest natural spring in Florida

that yields some 340 million gallons of water per day (Figure 13 Sutherland, et. Al 2017).

One of the main threats to the Floridan aquifer on this property was a scattering of abandoned wells, some up to twelve inches in diameter. A well-closure contract was initiated by FDEP and thirteen wells were capped or welded shut. As a result, all known abandoned wells on the property have been capped. There are also four SJRWMD monitoring wells on ILSF. Two active wells and one septic system are being used by FFS on the property as of 2022. In the future, as recreation sites for on-site forest use are planned, water supply wells and / or septic systems will be necessary. They will be located and designed to comply with all pertinent state, water management district, and local regulations, and with the sensitive nature of the property in mind. Two water supply wells are found on the property; a six-inch well at the FFS office site and a four-inch well at the Indian Lake Campground. At acquisition, FDEP evaluated the wells on the State Forest and capped many of them. Uncapped wells used for monitoring include: paired six-inch and twelve-inch wells reworked by SJRWMD in 2020; two small wells; a deep well along Baseline Road; and two six-inch irrigation wells which are loosely capped. See Exhibit K.

The FFS will cooperate with the St. Johns River Water Management District (SJRWMD), FDEP, counties and municipalities to develop and implement a water quality monitoring plan for Indian Lake and Indian Lake Prairie. Water resource protection measures, at a minimum, will be accomplished through the use of Best Management Practices (BMPs) as described in the FFS's Silviculture Best Management Practices manual.

1. Resources

Indian Lake and Indian Lake Prairie are the main water bodies on ILSF. In addition to this sinkhole lake system, cypress domes and baygalls occur in a small area on the eastern side of ILSF. At least 83 sinkholes are scattered throughout the sandhills, however, they do not hold water.

2. Water Classification

The FDEP's Standards Development Section reports that all of the surface waters within, adjacent to, or within five (5) miles of ILSF are classified as Class III Waters (Fish Consumption; Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife), which is the statewide default classification under Rule 62-302.400, F.A.C.

According to subsection 62-302.700(9), F.A.C., there are no Outstanding Florida Waters (OFW) within or adjacent to ILSF but there are four OFWs in relatively close proximity to the forest. These are the Silver River Special Waters and the Silver Springs State Park, each a little over 0.5 miles away; the Oklawaha River Aquatic Preserve, approximately 1.5 miles southeast; and the Oklawaha River Special Waters, approximately 3.2 miles southeast. See Exhibit J.

3. Water Protection

An objective for the acquisition and management of this public land was to optimize ecological restoration, protect and manage existing natural resources, and facilitate

sustainable public use. Concerns over a continuous, usable source of fresh water requires emphasis on protecting this vital resource.

4. Swamps, Marshes, and Other Wetlands

Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire and adherence to Silviculture BMPs.

The main area of ILSF wetlands, including Indian Lake and Indian Lake Prairie (a basin marsh), is on the eastern side of the forest. The eastern side of ILSF also contains dome swamps, depression marshes, baygalls, and other smaller isolated wetlands. Most ILSF wetlands are hydrologically intact, although fire-dependent communities have been historically fire-suppressed. While these wetlands only compose 3% of ILSF, maintaining the integrity of the wetlands natural communities is a high priority. The remaining forest area is extremely well-drained sandhill without surface water features. However, this is a vital groundwater recharge area, and the location and integrity of sinkholes will be considered while conducting any management activity that might impact the aquifer.

5. Wetlands Restoration

Wetlands restoration objectives on the State Forest include erosion control, restoration of hydrology, and restoration of wetland plant and animal communities. To achieve these objectives, restoration activities may involve road and soil stabilization, water level control structure removal or installation, non-native invasive species control, site preparation and re-vegetation with native wetlands species, and project monitoring. These activities may be conducted individually or concurrently and implemented by FFS personnel or by non-FFS personnel under mitigation or grant contractual agreements. Wetland restoration projects should be conducted in conjunction with other restoration activities indicated elsewhere in this plan.

Where applicable, ILSF, with assistance from the FFS Forest Management Bureau, may pursue funding to develop and implement wetlands restoration projects. Additionally, cooperative research among FFS, other state agencies, and the federal government will provide valuable information in determining future management objectives of wetland restoration.

Wetlands restoration will be coordinated with the SJRWMD. Any activities requiring permits from the water management district will be handled accordingly and will follow the latest edition of the FFS Silviculture Best Management Practices Manual.

6. Florida Department of Environmental Protection Basin Management Action Plan

A Basin Management Action Plan (BMAP) is a "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL). It represents a comprehensive set of strategies, including, but not limited to: permit limits on wastewater facilities, urban and agricultural best management practices, conservation programs, financial assistance, and revenue generating activities, all designed to implement the pollutant reductions established by the TMDL. These broad-

based plans are developed with local stakeholders, as they rely on local input and local commitment, and are adopted by Secretarial Order to be enforceable.

The BMAP provides for phased implementation under subparagraph 403.067(7)(a)1, F.S. The phased BMAP approach allows for the implementation of projects designed to achieve incremental reductions, while simultaneously monitoring and conducting studies to better understand the water quality dynamics (sources and response variables) in the watershed.

The ILSF resides in the Ocklawaha Silver Springs BMAP. See Exhibit K.

C. Floral and Faunal Resources

1. Rare, Endangered, and Threatened Species

The intent of FFS is to manage ILSF in a manner that will minimize the potential for wildlife species to become imperiled. FFS employees continually monitor the forest for threatened or endangered species while conducting management activities. Specialized management techniques may be used, as necessary, to protect or increase protection of rare, threatened, and endangered species, as applicable for both plants and animals. See Table 5.

Table 5. Rare, Endangered, and Threatened Species Documented on ILSF

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
Eastern indigo snake	<i>Drymarchon couperi</i>	G3	S2	T	FT
Gopher tortoise	<i>Gopherus polyphemus</i>	G3	S3	C	ST
Pine snake	<i>Pituophis melanoleucus</i>	G4	S3	N	ST
Scrub stylisma	<i>Stylisma abdita</i>	G3	S3	N	E
Southeastern American kestrel	<i>Falco sparverius paulus</i>	G5T4	S3	N	ST
Southeastern fox squirrel	<i>Sciurus niger</i>	G5T5	S3	N	N

*** STATUS / RANK KEY**

FNAI Global Rank: G1 = Critically Imperiled, G2 = Imperiled, G3 = Very Rare, G4 = Apparently Secure, G5 = Demonstrably Secure, GH = Possibly Extinct, GNR = Element not yet ranked (temporary), G#? = Tentative rank, T# = Taxonomic Subgroup; numbers have same definition as G#'s.

FNAI State Rank: S1 = Critically Imperiled, S2 = Imperiled, S3 = Very Rare, S4 = Apparently Secure, S5 = Demonstrably secure in Florida, SH = Possibly Extinct, S#? = Tentative Rank.

Federal Status (USFWS): LE = Listed Endangered, LT = Listed Threatened, N = Not currently listed, 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. SAT, T(S/A) = threatened due to similarity of appearance. A species that is threatened due to similarity of appearance with another listed species and is listed for its protection. Species listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation.

State Status (FWC): Animals: FE = Listed as Endangered Species at the Federal level by the USFWS, FT = Listed as Threatened Species at the Federal level by the USFWS, F(XN) = Federal listed as an experimental population in Florida, FT(S/A) = Federal Threatened due to similarity of appearance, ST = State population listed as Threatened by the FWC, SSC = Listed as Species of Special Concern by the FWC, N = Not currently listed, nor currently being considered for listing.

Plants: LE = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act; LT = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered; CE = Commercially Exploited; N = Not currently listed, nor currently being considered for listing.

2. Florida Natural Areas Inventory

The Florida Natural Areas Inventory (FNAI) is the single most comprehensive source of information available on the locations of rare species and significant ecological resources throughout Florida. FNAI has reported the following:

a. Element Occurrences

FNAI element occurrences data layer includes occurrences of rare species and natural communities. For animals and plants, element occurrences usually indicate a viable population of the species.

Documented habitat includes: basin marsh, basin swamp, baygall, depression marsh, mesic flatwoods, mesic hammock, sandhill, sandhill upland lake, sinkhole, and xeric hammock.

b. Likely and Potential Habitat for Rare Species

In addition to documented occurrences, other rare or threatened species may occur on or near ILSF. Rare species and communities that have not been documented but that are likely or potential at the site are listed in Exhibit L.

c. Land Acquisition Projects

The site is located in Florida's First Magnitude Springs Florida Forever Project - Silver Springs Sandhill, which is part of Florida's CARL land acquisition program. See Exhibit R.

FNAI recommends that professionals familiar with Florida's flora and fauna conduct a site-specific survey to determine the current presence or absence of rare, threatened, or endangered species before expansions or alterations are made to any facilities.

3. Florida Fish and Wildlife Conservation Commission

The FWC Fish and Wildlife Research Institute (FWRI) reports records of listed species occurrences or critical habitats around or within the confines of the property. This includes state and federally listed endangered or threatened species.

Specific findings by the FWC include:

- a.** Records of Florida black bear (*Ursus americanus floridanus*) and Eastern Indigo snake (*Drymarchon couperi*) are found on or within one mile of ILSF.
- b.** Strategic Habitat Conservation Areas within one mile of the property for Florida mouse (*Podomys floridanus*), swallow-tailed kite (*Elanoides forficatus*), Cooper's hawk (*Accipiter cooperii*), Florida black bear (*Ursus americanus floridanus*), and striped newt (*Notophthalmus perstriatus*).
- c.** ILSF is located within an area of moderate Species Richness which indicates the total number of species within potential habitat identified in a specific location.
- d.** ILSF is adjacent to Priority Wetlands, which are wetlands significant to listed wetland-dependent vertebrates.
- e.** FWC records include a map indicating multiple listed species locations on or near ILSF.

These data represent only those occurrences recorded by FWC staff and other affiliated researchers. The database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species are not entered into the database on a site-specific basis. Therefore, one should not assume that an absence of occurrences in their database indicates that species of significance do not occur in the area. See Exhibit M.

FWC recommends the review of management guidelines in the published FWC Gopher Tortoise Species Management Plan to guide management actions for the gopher tortoise (*Gopherus polyphemus*) on ILSF. The FWC Gopher Tortoise Species Management Plan provides beneficial resource guidelines for habitat management and monitoring of the gopher tortoise. For reference, the FWC Gopher Tortoise Species Management Plan can be accessed at www.MyFWC.com.

FWC recommends the review of management guidelines in FWC's published Species Action Plans for the management of imperiled, rare, and focal bird species. The FWC Species Action Plans provide beneficial resource guidelines for habitat management and monitoring of the respective species. For reference, the FWC Species Action Plans can be accessed at www.MyFWC.com.

4. Game Species and Other Wildlife

Wildlife management plays an important role in the management of resources on ILSF. FWC provides cooperative technical assistance in managing the wildlife and fish populations, determining hunting seasons, establishing bag and season limits, and overall law enforcement on ILSF.

Notable wildlife species inhabiting ILSF include gopher tortoise (*Gopherus polyphemus*), southeastern fox squirrel (*Sciurus n. niger*), American kestrel (*Falco sparverius*), wood stork, (*Mycteria americana*) and wild turkey (*Meleagris gallopavo*).

ILSF supports a small population of feral hogs (*Sus scrofa*). Nuisance trapping may be utilized to control this population.

Non-game species will be managed and protected through the restoration and maintenance of native ecosystems found on ILSF. The current State Forest Handbook gives additional details for such things as snag management and retention.

5. Survey and Monitoring

FFS may implement species-specific management plans developed by FWC and other agencies as applicable. FFS will cooperate with FWC and other agencies in the development of new wildlife management plans and monitoring protocols, as necessary. Such plans will be consistent with rule and statute promulgated for the management of such species.

a. Gopher Tortoises

Surveys for gopher tortoise burrows have been conducted by FFS and FWC staff intermittently, as needed. All surveys are done in cooperation with FWC.

The FFS follows and utilizes the Best Management Practices for gopher tortoises to assist

in meeting management objectives for both the species and the communities in which it is found.

b. Florida Black Bear

FFS will continue to cooperate with FWC to implement FWC's Florida Black Bear Management Plan, with emphasis on maintaining sustainable black bear populations in suitable habitats throughout Florida for the benefit of the species and people.

c. Listed Plant Species

All known locations of listed or rare flora are GIS mapped and location data are shared with FNAI.

d. Other Rare Biota Surveys

Surveys are done as time and staffing allow. High quality plant communities continue to incur ad hoc surveys for both invasive plants and animals. The FFS will utilize FWC Species Action Plans for guidance both monitoring populations and for habitat management recommendations for rare and imperiled species, where appropriate.

Most of the isolated wetlands have received a cursory biological survey, with rare and significant plant and animal species observed and documented. Assistance will be offered to FWC for gopher tortoise burrow commensals monitoring, as well as monitoring for other rare species, as appropriate.

During routine management activities, incidental sightings of rare animals and plants are GIS mapped by FFS staff. All rare species data are collected and sent to FNAI annually.

6. Gopher Tortoise Recipient Site Feasibility Assessment

The FFS has assessed the feasibility of establishing a gopher tortoise recipient site on ILSF. In 2018, biologists from FWC conducted a line transect distance sampling protocol across 3,496 acres of ILSF to determine the baseline population of tortoises across all suitable natural communities and soil types. After conducting the survey, FWC estimated that there was a population of 622 gopher tortoises across suitable habitat types, or about one tortoise per five acres, which is low enough that ILSF could accept gopher tortoises. To that end, staff on ILSF have identified a 132-acre parcel in the southern portion of the forest, directly adjacent to the southern boundary, which contains suitable soils and could be established as a recipient site.

However, based on the operational budget and staff assigned to the forest, the FFS does not have the financial or technical capacity to install a gopher tortoise recipient area on ILSF. The FFS would require financial and technical assistance from FWC to establish a recipient site on ILSF. Should that assistance be available, the FFS would be amenable to partnering and establishing a gopher tortoise recipient site.

D. Sustainable Forest Resources

FFS practices sustainable multiple-use forestry to meet ILSF resource needs and values of the present without compromising the similar capability of the future. Sustainable forestry involves

practicing a land stewardship ethic that integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, wildlife and fish habitat, and aesthetics. This is accomplished by maintaining and updating accurate estimates of standing timber in order to assure that the timber resources retain their sustainability. Forest inventories will be updated on a continual basis according to guidelines established by the FFS Forest Management Bureau.

E. Beaches and Dune Resources

No beaches or dunes occur on the ILSF.

F. Mineral Resources

No mineral deposits of commercial value are known to exist on ILSF.

G. Unique Natural Features and Outstanding Native Landscapes

A unique feature existing on ILSF is Indian Lake, a deep sinkhole lake directly connected to the Floridan aquifer. The surrounding karst uplands are vital to the water quality of Silver Springs.

H. Research Projects / Specimen Collection

Research projects may be conducted on ILSF on a temporary or permanent basis for the purpose of obtaining information that furthers the knowledge of forestry and related fields. FFS cooperates with other governmental agencies, non-profit organizations, and educational institutions, whenever feasible, on this type of research. FFS will consider assisting with research projects when funds and manpower are available.

All research to be considered on ILSF must be in accordance with the guidelines stated in the State Forest Handbook. Any requests for research should be submitted in writing to the appropriate field staff to be forwarded to the Forest Management Bureau for approval. Requests must include: a letter outlining the purpose, scope, methodology, and location of the proposed research. Requests are subject to review by FFS Foresters, Biologists, the Forest Health Section, and the Forest Hydrology Section, as appropriate. Authorization to conduct research will require that the investigator provide copies of any reports or studies generated from any research to the FFS and the ILSF staff. Other special conditions may be applicable, and the authorization may be terminated at any point if the study is not in compliance.

Research projects, studies, and / or specimen collections that have been initiated on the property within the last 10 years include:

- University of Florida, Department of Geological Sciences. 2017. Hydrostratigraphy characterization of the Floridan aquifer system using ambient seismic noise.
- University of North Carolina, Schoonover-Weakley. 2019. Plant material collection for genetic and morphological analyses and to examine *Trichostema* populations throughout the southeastern United States.
- FWC-FWRI, Smith. 2021. Project to improve detection method for long-tailed weasel and Everglades mink to determine their abundance in Florida.
- University of Florida, Mallinger. 2021. Project to investigate the behavior and ecology of the Southeastern blueberry bee (*Habropoda laboriosa*) and its host plants (*Vaccinium* sp.).

I. Ground Disturbing Activities

Although the FFS's approach to handling ground disturbing activities is identified in other sections of this plan, the FFS's overall approach to this issue is summarized here. FFS recognizes the importance of managing and protecting sensitive resources and will take steps to ensure that such resources are not adversely impacted by ground disturbing activities. Sensitive resources include areas such as known sensitive species locations; archaeological, fossil, and historical sites; and ecotones, wetlands, and water resources. The process for evaluating and obtaining approval for ground disturbing activities is outlined in Appendix 2.A.6. of the State Forest Handbook.

When new pre-suppression firelines, recreation trails, or other low-impact recreation site enhancements are necessary, their placement will be reviewed by State Forest field staff to avoid sensitive areas. For ground disturbing activities such as construction of buildings, parking lots, and new roads, the FFS will consult with FNAI, DHR, WMD, and ARC, as appropriate.

V. Public Access and Recreation

The primary recreation objective is to provide the public with dispersed outdoor recreation activities that are dependent on the natural environment, and to provide outdoor recreation opportunities to wounded veterans through Operation Outdoor Freedom (OOF). FFS will continue to promote and encourage public access and recreational use by the public while protecting resources and practicing multiple-use management.

Periodic evaluations will be conducted by FFS staff to monitor recreation impacts on resources. Modifications to recreational uses will be implemented should significant negative impacts be identified. New recreation opportunities and facilities, which are compatible with the primary goals and responsibilities of the FFS, will be considered only after FFS determines their compatibility with other forest uses and forest resources. Assessment of visitor impacts, outdoor recreation opportunities and facilities, and proposed changes will all be addressed in the Five-Year Outdoor Recreation Plan updates.

A. Existing

Recreation opportunities at ILSF include hiking, birdwatching, horseback riding, fishing, picnicking, RV & primitive camping, wildlife viewing, and photography. The lake recreation area trailhead is located on the north side on Indian Lake. The Bear-N-Oak looped hiking trail begins at this trailhead. The equestrian trailhead and trails are on the west side of Baseline Road north of State Road 326. This section of ILSF has the largest acreage needed to provide trail lengths suitable for equestrian users. A third high-use public area on ILSF is the campground. The campground is suitable for RV and / or primitive campers. The fourth existing public site is the State Forest office. The office is located just off State Road 326 and within five miles of all the recreation parking areas. This office also serves as a visitor center where visitors can get more information and specific questions answered. See Exhibit D for a map of the Recreation, Facilities, and Improvements.

Lake Recreation Area

Visitors can park at the lake recreation trailhead within 100 yards of the lake's shore. From here visitors can hike the 1.4-mile Bear-N-Oak trail that loops around Indian Lake,

enjoy sitting at picnic tables scattered amongst the majestic oaks while enjoying the lake views, or use the pavilion with barbecue grills and tables. The pavilion was built using the foundation of a previous property owner's campground recreation / social hall. The hiking trail and the area around the lake is foot traffic only. A vault toilet is conveniently located adjacent to the day use parking area for day visitors.

Equestrian Trails Recreation Area

The equestrian trailhead and trails are found on the western side of Baseline Road. Equestrians can use 11.6 miles of designated horse trails. Equestrian riders may choose to shorten the ride length by half if they decide to use the 1.2-mile cut-off trail at Mile Marker 6. In the future, these trails may be considered for multiple-use trails to provide additional opportunities to hike or bike. A pavilion with picnic tables as well as a vault toilet can also be found at this trailhead. A connector trail was added from this trailhead to the St. Johns River Water Management District's Silver Springs Forest Conservation Area equestrian trails. This connection with water management lands gives riders an additional 10 miles of marked riding trails.

Campgrounds

ILSF currently has six RV campsites, five primitive campsites, and one campground host RV site. Indian Lake Campground is located several hundred yards north of the sinkhole lake the forest is named for, Indian Lake, and only 4.5 miles north of the renowned Silver Springs in Marion County. The current campground lies within the footprint of the old full-service campground that operated on this property until the early 1980s. Campsites include a picnic table, grill, fire ring, lantern post, and a parking spot. Each RV site has water and electric connections. Currently there is an RV dump station and a bathhouse is centrally located in the campground.

Forestry Station Office / Visitor Center

The Forestry Station Office / Visitor Center located on NE 40th Avenue Road serves as the hub where visitors can meet with staff and obtain information about the forest. Equipment used to manage and maintain the forest is housed at this site.

B. Planned

FFS will continue to assess plans for additional recreation opportunities based on demand, carrying capacity, demographics, and impact to the resources on ILSF. All planned improvements may be completed as staff and funding permits. Both terrestrial and aquatic resources and related activities will be evaluated. Any plans will be incorporated into the Five-Year Outdoor Recreation Plan on file at ILSF. FFS will continually reach out to user groups to communicate its needs and concerns with our user groups, cooperators, and visitors.

1. Public Access and Parking

Within this ten-year planning cycle, other parking and access points will be evaluated. Current parking areas and forest access points will continually be evaluated for improvements. There is no current need to add more trailheads on ILSF. Existing trailheads may need to be redesigned to allow for more parking using previously impacted areas.

Parking and access issues will be addressed annually as the Five-Year Outdoor Recreation Plan is updated and documented impacts are reviewed.

2. Recreation Trails

Within this ten-year planning cycle, suitable locations will be explored for additional recreation trails. Input from user groups will be considered in any trail improvements. A second loop will be added to the Bear-N-Oak hiking trail as trail use increases. This trail will expose forest visitors to Indian Lake Prairie (a basin marsh), mesic hammocks, and mesic flatwoods. A planned second trail will be an educational / interpretive trail if FFS and Ocala Springs Elementary School partner to construct a trail on forest property adjacent to the school. These trails will be laid out and constructed with the goal of minimizing impacts to the resources while keeping maintenance costs down. The construction, maintenance, and improvements of hiking, nature, and equestrian trails will be ongoing. Foot bridges and boardwalks may need to be installed on trails to mitigate impacts in wetland areas. Additional multi-use, equestrian, cycling, nature, and hiking trails may be evaluated, planned, and installed on ILSF.

Marion County has presented the concept of a paved trail that runs north and south from the ILSF campground to Silver Springs. Most of the proposed trail would be on ILSF adjacent to existing county road right of ways.

3. Environmental Education

Environmental education activities on ILSF are displayed on kiosks and conducted through guided tours and hands-on events by request. Targeted groups include the general public, school and youth groups, and various user groups. ILSF partners with other organizations to provide various in person hikes, tours, and events throughout the year. The link between Indian Lake, the Floridan aquifer, and Silver Springs will be a key focus of interpretation. Kiosks will be installed, replaced, or repaired as needed throughout ILSF. Information in the kiosks will continually be updated to remain current and relevant.

4. Amenities (Pavilions, Docks, Bathrooms, etc.)

During this ten-year planning period, FFS will assess the feasibility of installing additional pavilions at sites that are to be determined. Pavilions may be installed at various locations on ILSF if future demands create a need for them. Pitcher pumps are also being planned for installation. At least one water source should be added as an equestrian amenity at the equestrian trailhead. Culverts will need to be replaced to prevent further erosion at a key hiking trail crossing over the drain from the basin marsh to the lake. Additional bathroom / shower units may be installed if the number of campsites is increased to a level where the current infrastructure cannot accommodate the increased use. All other existing amenities may be replaced, upgraded, or improved as needed. Additional amenities that may be assessed during this ten-year planning period include but are not limited to: bear-proof trashcans, bear-proof storage containers, gates, educational displays, signs, fencing, potable water sources, water and electric utility hook-ups, lighting, tent or RV pads, boardwalks, culverts, and gazebos. New amenities may need to be added along the Indian Lake to Silver Springs multi-use paved trail if the trail is constructed in the future. These amenities will be included in the multi-use trail's planning phase prior to construction. Any amenity installed

will provide a positive benefit for forest users.

5. Camping

During this ten-year planning period, FFS will assess the feasibility of additional campsites and a group camping area. Any new campsites added will have amenities consistent with existing camping areas. Before any new campsites or camping areas are installed, the current infrastructure will be evaluated to make sure it can handle an increase in use without putting a strain on existing services. Campsites will be installed, replaced, improved, and/or repaired as needed. Additional amenities including but not limited to bear-proof trashcans, bear-proof storage containers, pavilions, gates, restrooms, RV dump station, signs or kiosks, fencing, water and electric hook-ups, lighting, tent or RV pads, and gates. The Florida Forest Service will handle permitting special camping requests which fall outside of the normal day to day operations handled through the online camping reservation system.

C. Hunter Access

Regulated hunting and fishing on Florida's forests are managed cooperatively with the FWC. Hunting season dates, limits, and methods are established annually by FWC, in cooperation with FFS. Wildlife Management Area (WMA) regulations are updated annually and are identified in the current WMA brochures provided by FWC at www.MyFWC.com. Non-hunting recreation users are encouraged to check the Wildlife Management Area regulations and season dates before visiting ILSF.

ILSF is not currently a WMA. FFS will consult with FWC to designate ILSF as a WMA for quality hunting opportunities if the OOF program decides to no longer use this forest as an OOF site. Management of this area will be directed to the production of biological diversity and species composition consistent with the 10 existing natural community types. Such communities will be restored and / or maintained through habitat management. All biological resources will be managed to maintain diversity.

OOF may host multiple events on ILSF. These events will involve outdoor recreation activities including, but not limited to, hunting, fishing, hiking, camping, clay shooting, and any other activity that is developed as an outdoor activity for wounded veterans. The supporting personnel will include state and private volunteers and any support personnel necessary for the operation, support, or funding of such events. Events can be recreation, fundraising, or planning in nature. The OOF program needs may include the upgrading of existing or construction of new facilities for lodging and recreation of participants, as well as logistical and operational needs of the program. On-site and offsite fundraising for the benefit of OOF may occur to assist in these efforts and will be performed under the coordination and consistent with the guidelines of the Friends of Florida State Forests.

D. Education

FFS may create partnerships with local K-12 schools and / or universities for the development and implementation of educational opportunities on ILSF. Once partnerships are developed, the Five-Year Outdoor Recreation Plan will provide more insight to management activities as they pertain to future educational opportunities ILSF may provide to the public.

VI. Forest Management Practices

A. Prescribed Fire

Forest management practices on ILSF are important in the restoration and maintenance of forest ecosystems and provide a variety of socio-economic benefits to Floridians. Management practices on ILSF include prescribed fire, which is an effective tool in controlling the encroachment of shrubs and off-site hardwoods, stimulating the recovery of native herbaceous groundcover, and promoting the regeneration of native pines.

FFS utilizes a fire management program on State Forests that includes wildfire prevention, detection and suppression, and prescribed burning. This program is the responsibility of FFS's Waccasassa Forestry Center and is detailed in the Five-Year Prescribed Burning Management Plan. Emphasis will be placed on prescribed burning, wildfire prevention, and education to help reduce wildfire occurrence on ILSF.

A Fire History chart detailing the recent history of prescribed burns and wildfires at ILSF is available in Exhibit N.

FFS has two (2) fire towers, two (2) brush trucks, and five (5) tractor-plow units located throughout Marion County. Additional support is available from neighboring counties. Personnel and equipment stationed at ILSF will be used for pre-suppression practices, establishment of firebreaks, rehabilitation of existing firelines, construction of new firelines, maintenance of perimeter firebreaks, and prescribed burning.

The prescribed burning program developed for ILSF produces multiple benefits. The objectives of prescribed burning on ILSF include facilitating forest management operations, enhancing wildlife and listed species habitat; decreasing fuel loading, enhancing public safety, and restoring, maintaining, and protecting all native ecosystems, ecotones, and their ecological processes. FFS personnel are responsible for planning and implementing the annual prescribed burn program for ILSF, which will consist of dormant and growing season burns. An update to the Five-Year Prescribed Burning Management Plan is developed each year by FFS staff. All burns conducted on ILSF are executed by Florida Certified Prescribed Burn Managers in accordance with Chapters 590.125, F.S. and 5I-2 F.A.C.

According to FNAI, historic, fire-dependent natural communities on ILSF are estimated to have occupied 4,200 acres and to have burned at approximately two (2) to four (4) year intervals. Current fire-dependent communities encompass 2,800 acres. Some historically fire-dependent communities have been altered through past land use practices, which inhibits the ability to meet objectives with prescribed fire alone. Based on current conditions and management objectives, ILSF will plan for 700 to 1,400 acres to be prescribed burned annually. Priority ranking of burn units is used to keep fire-return intervals maintained while slowly adding additional acreage. Meeting prescribed fire goals will be largely dependent on weather conditions, available personnel, and statewide emergency situations such as wildfires, hurricanes, and other natural disaster response and relief. Currently it is estimated that approximately 2,500 acres of ILSF are within the desired fire-return interval.

1. Fire Management

The fire management plan serves as a working tool and an informational document for ILSF.

The plan provides guidelines regarding wildfire suppression and prescribed fire management. It will specify burn units, burn unit prescriptions, appropriate fire-return intervals, and fire pre-suppression planning. The plan may be reviewed and amended as necessary.

The use of prescribed fire in the management of timber, wildlife, and ecological resources on ILSF is necessary if the FFS is to fulfill the goals and objectives stated in this plan including: enhancing and restoring native plant communities, managing protected species, and managing timber, recreation, historical, and other resource values. The fire management plan and its objectives shall reflect and incorporate these multiple-resource objectives.

- a. Prescribed Fire:** Prescribed fire is the most important land management tool, both ecologically and economically, for managing vegetation and natural communities and for perpetuating existing wildlife populations in Florida. Forest operation records and staff experience should be combined with the FNAI inventory and assessment (2016) to identify areas that may require mechanical or chemical treatments in conjunction with prescribed fire to restore a more natural vegetative structure.
- b. Burn Unit Plans:** Each prescribed fire will be conducted in accordance with FFS regulations and state law (Chapter 5I-2 F.A.C., Chapter 590, F.S.) and have a burn unit plan (or prescription). Each prescription will contain, at a minimum, the information, as required by Section 590.125(3), F.S., needed to complete the FFS Prescribed Burn Plan Form FDACS 11461.

Aerial ignition may be considered for large burn units where this tactic can be cost effective for larger acreages. Consideration should be given to rotating burn units between dormant and growing season burns over time. Fire-return intervals for a burn unit are recommended to fall within the natural, historic range for the dominant natural community or communities within a given burn unit.

Based upon available species survey data, burn units within a prescription that have listed wildlife species shall explicitly state their presence and any restrictions or requirements relative to prescribed burning in proximity to these species or habitats. These may include time of year, pre-burn preparation, fire-return intervals, and other burn parameters.

B. Wildfire Prevention and Mitigation Strategies

FFS utilizes a comprehensive wildfire management approach on State Forests that includes an ongoing program of wildfire prevention, detection and suppression, and prescribed burning. Implementation of this program is the responsibility of FFS's Waccasassa Forestry Center. Emphasis will be placed on consistent accomplishment of prescribed burning goals and community outreach to increase public understanding of wildfire prevention and the benefits of prescribed fire.

The FFS has three paramount considerations regarding wildfires and are established in priority order:

- 1) Protection of human lives
- 2) Protection of improvements
- 3) Protection of natural resources

All procedures regarding wildfire will follow the State Forest Handbook and the ILSF Fire Management Plan.

1. **Suppression Strategies**

If a wildfire occurs on ILSF there are two (2) alternative suppression strategies as defined below:

- a. **Contain and Control** is defined as a suppression strategy where a fire is restricted to a certain area by using existing natural or constructed barriers that stop the fires spread under the prevailing and forecasted weather until it is out. This strategy allows the use of environmentally sensitive tactics based on fuels, fire behavior, and weather conditions that keep a wildfire from burning a large area or for a long duration.
- b. **Direct Suppression** is defined as a suppression strategy where aggressive suppression tactics are used to establish firelines around a fire to halt its spread and to extinguish all hotspots. This alternative is used whenever there is a threat to human life, property, private lands, and / or critical natural or cultural resources. This strategy should also be used when the total district fire load dictates that crews not be involved with individual fires for any longer than necessary.

Appropriate suppression action will be that which provides for the most reasonable probability of minimizing fire suppression cost and critical resource damage, consistent with probable fire behavior, total fire load, potential resource and environmental impacts, safety, and smoke management considerations. The Incident Command System (ICS) will be used for all suppression actions.

2. **Smoke Management**

Caution will be exercised to prevent a public safety or health hazard from the smoke of any prescribed burn or wildfire. Prescribed burns must pass the smoke screening procedure and be conducted by a certified burner. If smoke threatens to cause a safety hazard, then direct, immediate suppression action will be taken.

3. **Fire Breaks and Firelines**

A system of permanent fire breaks will be developed and maintained around and within the boundaries of ILSF to guard against fires escaping from and entering the forest. Such fire breaks will consist of natural barriers, roads, trails, permanent grass strips, and where appropriate, well-maintained harrowed lines. All pre-suppression fire breaks will meet the established Silvicultural BMP criteria.

During wildfire suppression, the use of water and foam, permanent fire breaks, natural barriers, and existing roads and trails for firelines can be used when human life, safety, property, and resource considerations allow. Plowed and / or bladed lines will be used for initial installation of firelines in heavy fuels and in cases where it's considered necessary to protect life, property, or resources and / or to minimize threats to firefighters. Plowed and bladed lines will be rehabilitated, and BMPs implemented as soon as practical after the fire is suppressed.

4. Sensitive Areas

ILSF retains on file in the State Forest headquarters an Environmentally Sensitive Area Map that identifies protected sites such as critical wetlands and archaeological and historical sites known to occur on the State Forest. FFS personnel are aware of these areas in the event of a wildfire. Special precautions will be followed when prescribed burning in sensitive areas on ILSF. When possible, fire staff will avoid line construction in wetland ecotones throughout the ILSF.

5. Firewise Communities

FFS has implemented a Firewise community approach for prevention statewide. Specifically, in the area adjacent to or nearby ILSF, efforts in this regard will continue to identify communities at risk and to contact their representatives.

6. Adjacent Neighbor Contacts

The staff at ILSF maintains a list of neighbors that have requested they be notified in advance of prescribed burns. These families are contacted by telephone or email with potential sites and dates of anticipated prescribed burns.

7. Post-Burn Evaluations

A post-burn evaluation is required for each prescribed burn on the State Forest to assess impacts on timber and habitat. Based on the evaluations after prescribed fires in particular, decisions will be made on the effectiveness of the prescribed burn and improvements that can be made in the future. A historical fire record for all significant fires and prescribed burns will be maintained. This will be accomplished using completed burn plans and the maintenance of GIS data. These records are intended to provide data for future management decisions.

C. Sustainable Forestry and Silviculture

Timber is a valuable economic and ecological resource, and timber harvesting for the purposes of generating revenue, improving stand viability, forest health, wildlife, and ecological restoration and maintenance is critical to the silvicultural objectives on the State Forest.

1. Strategies

The following silvicultural strategies will apply to silvicultural practices on ILSF:

- a. To restore and maintain forest health and vigor through timber harvesting, prescribed burning, and reforestation, both naturally and artificially, with species native to ILSF.
- b. To create, through natural or artificial regeneration, uneven-aged, and even-aged management, a forest with both young and old growth components that yields sustainable economic, ecological, and social benefits.

2. Silvicultural Operations

Silvicultural operations on ILSF will be directed toward improving forest health, wildlife habitat, ecological and economical sustainability, as well as toward recovery from past management practices prior to state acquisition that are not in accordance with the objectives of this plan. Stands of off-site species with merchantable volume will be scheduled for harvest, followed by reforestation with the appropriate tree species. Herbicide applications may be necessary to control woody competition and to re-establish desired native overstory

and groundcover species. Site preparation methods may include prescribed fire, mechanical vegetation control, and / or herbicide applications. Herbicides used will be registered for forestry use by the U.S. Environmental Protection Agency (EPA) and will not adversely affect water resources.

Prescribed fire is the most desirable method of vegetation control in fire-dependent ecosystems. However, due to the existence of areas where fuel loads have reached dangerous levels or urban interface dictates prescribed fire is not suitable, mechanical or chemical vegetation control may be used. Mechanical and / or chemical vegetation control will be utilized where appropriate as determined by FFS staff for wildlife enhancement, fuel mitigation, and reforestation.

Maintenance and restoration of timber stands and natural communities through timber harvesting will include thinning for maintenance, regeneration harvests applicable to the species present, and clear-cutting to remove off-site species.

All silvicultural activities, including timber harvesting and reforestation, will meet or exceed the standards in FFS's Silviculture BMPs and the State Forest Handbook, and will follow the Five-Year Silviculture Action Plan.

3. Forest Inventory

The purpose of a forest inventory is to provide FFS resource managers with information and tools for short and long-range resource management and planning. Ten percent of ILSF forest will be re-inventoried annually to provide an accurate estimation of the standing timber and to ensure that stands will be managed sustainably.

Timber / forestry resources available on the property include loblolly, longleaf, slash, and small pockets of sand pine. In addition, there are mixed hardwoods and cypress found throughout ILSF.

4. Timber Sales

Timber sales are advertised for competitive bids and sold on a per unit or lump sum basis. All timber sales are conducted according to guidelines specified in the State Forest Handbook.

5. Cattle Grazing

There are currently no cattle leases on ILSF.

D. Non-Native Invasive Species Control

FFS employees continually monitor ILSF for non-native invasive species while conducting management activities. FFS will locate, identify, and apply control measures with the intent to eradicate or control non-native invasive species. Table 6 lists the general treatment strategy, acres impacted, and population stability trend for non-native invasive plant species occurring on ILSF. Also see Exhibit O.

On-going maintenance and monitoring strategies are outlined in the Five-Year Ecological

Management Plan which is developed to locate, identify, and control non-native invasive plant species. Occurrences of non-native invasive species are recorded in the ILSF GIS database and are monitored and treated annually as funding permits. The GIS database is updated as new infestations are discovered.

Adjacent landowners who are known to have these species on their property will be approached to cooperate on control measures. FFS works to control the spread of non-native invasive species by decontaminating agency equipment and equipment used by private contractors according to the State Forest Handbook.

FFS will enlist support from FWC in efforts to control non-native invasive animals. Feral hogs are present on ILSF but are not believed to occur in significant numbers at this time. Training in the identification and control of invasive species will be scheduled for personnel as time and resources permit. Training concerning non-native invasive plants will be coordinated with the Forest Management Bureau's Forest Health Section. Control of non-native invasive species will be target specific and use a variety of methods including appropriately labeled and efficacious herbicides.

Table 6. Non-Native Invasive Plant Species Occurring on ILSF

Common Name	Scientific Name	FISC Category*	Treatment Strategy	Acres Impacted	Increasing /Decreasing
Air potato	<i>Dioscorea bulbifera</i>	1	Spot Treatment with herbicide/Biocontrol	0.1	Decreasing
Asparagus fern	<i>Asparagus aethiopicus</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Bengal dayflower	<i>Commelina benghalensis</i>	No	Unknown/Herbicide resistant	0.1	Increasing
Bermuda grass	<i>Cynodon dactylon</i>	No	Monitor	25	Increasing
Bowstring hemp	<i>Dracaena hyacinthoides</i>	2	Spot Treatment with herbicide	0.1	Decreasing
Caesar weed	<i>Urena lobata</i>	1		0.5	Increasing
Camphor tree	<i>Cinnamomum camphora</i>	1	Treatment with herbicide; Hack & Squirt With Repeated Visits Until Site in Maintenance	8	Decreasing
Cat's claw vine	<i>Dolichandra unguis-cati</i>	1	Treatment with herbicide; Foliar With Repeated Visits Until Site in Maintenance	2	Increasing
Chinaberry	<i>Melia azedarach</i>	2	Treatment with herbicide; Hack & Squirt With Repeated Visits Until Site in Maintenance	1	Decreasing
Chinese parasol tree	<i>Firmiana simplex</i>	No	Spot Treatment with herbicide	0.1	Decreasing
Chinese privet	<i>Ligustrum sinense</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Chinese tallowtree	<i>Triadica sebifera</i>	1	Spot Treatment with herbicide	0.1	Decreasing

Common Name	Scientific Name	FISC Category*	Treatment Strategy	Acres Impacted	Increasing /Decreasing
Chinese wisteria	<i>Wisteria sinensis</i>	2	Spot Treatment with herbicide		Decreasing
Cogongrass	<i>Imperata cylindrica</i>	1	Treatment with herbicide; Broadcast With Repeated Visits Until Site in Maintenance	5	Decreasing
Coral ardisia	<i>Ardisia crenata</i>	1	Spot Treatment with herbicide; Manual	2	Decreasing
Coral vine	<i>Antigonon leptopus</i>	2	Spot Treatment with herbicide	0.1	Decreasing
Elephant ear	<i>Xanthosoma sagittifolium</i>	2	Spot Treatment with herbicide	0.1	Decreasing
English ivy	<i>Hedera helix</i>	No	Spot Treatment with herbicide	0.1	Increasing
Flamegold	<i>Koelreuteria elegans formosana</i>	2	Treatment with herbicide; Hack & Squirt With Repeated Visits Until Site in Maintenance	1	Decreasing
Glossy privet	<i>Ligustrum lucidum</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Japanese climbing fern	<i>Lygodium japonicum</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Japanese honeysuckle	<i>Lonicera japonica</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Johnson grass	<i>Sorghum halepense</i>	No	Monitor	2	Increasing
Kudzu	<i>Pueraria montana var. lobata</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Lantana	<i>Lantana strigocamara</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Mexican petunia	<i>Ruellia simplex</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Mimosa	<i>Albizia julibrissin</i>	1	Treatment with herbicide; Hack & Squirt With Repeated Visits Until Site in Maintenance	4	Decreasing
Nandina	<i>Nandina domestica</i>	1	Spot Treatment with herbicide		Decreasing
Natal grass	<i>Melinis repens</i>	1	Treatment with herbicide; Broadcast With Repeated Visits Per Season With Soil Active Herbicide Until Site in Maintenance	50	Increasing
Paper mulberry	<i>Broussonetia papyrifera</i>	2	Spot Treatment with herbicide	1	Decreasing
Rough hairy indigo	<i>Indigofera hirsuta</i>	No	Monitor	100	Increasing
Rose glorybower	<i>Clerodendrum bungee</i>	No	Spot Treatment with herbicide	0.1	Decreasing
Small leaved spiderwort	<i>Tradescantia fluminensis</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Showy rattlebox	<i>Crotalaria spectabilis</i>	No	Spot Treatment with herbicide; Manual	0.1	Decreasing

Common Name	Scientific Name	FISC Category*	Treatment Strategy	Acres Impacted	Increasing /Decreasing
Skunk vine	<i>Paederia foetida</i>	1	Spot Treatment with herbicide	0.1	Decreasing
Sweet viburnum	<i>Viburnum odoratissimum</i>	No	Spot Treatment with herbicide	0.1	Decreasing
Sword fern	<i>Nephrolepis cordifolia</i>	1	Spot Treatment with herbicide	1	Decreasing
Tropical soda apple	<i>Solanum viarum</i>	1	Spot Treatment with herbicide	0.5	Decreasing
Wedelia	<i>Sphagneticola trilobata</i>	2	Spot Treatment with herbicide	0.1	Decreasing
Winged yam	<i>Dioscorea alata</i>	1	Spot Treatment with herbicide	0.5	Increasing

* FISC – Florida Invasive Species Council: Category 1 – Invasive exotics that are altering native plant communities by displacing native species, changing community structures or ecological functions, or hybridizing with natives. This definition does not rely on the economic severity or geographic range of the problem, but on the documented ecological damage caused; Category 2 – Invasive exotics that have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category 1 species. These species may become Category 1 if ecological damage is demonstrated.

E. Insects, Disease, and Forest Health

Currently, there are no significant insect or disease problems on ILSF. In the event of a forest pest outbreak, ILSF resource managers will consult with the Forest Management Bureau's Forest Health Section to formulate an appropriate and effective response.

In compliance with Section 388.4111, F.S. and in Section 5E-13.042, F.A.C., all lands have been evaluated and subsequently designated as environmentally sensitive and biologically highly productive. Such designation is appropriate and consistent with the previously documented natural resources and ecosystem values and affords the appropriate protection for these resources from arthropod control practices that would impose a potential hazard to fish, wildlife, and other natural resources existing on this property. The local arthropod control agency in Marion County will be notified of the approval of this plan documenting this designation.

As a result, prior to conducting any arthropod control activities on ILSF, the local agency must prepare a public lands control plan that addresses all concerns that FFS may have for protecting the natural resources and ecosystem values on the State Forest. In this regard, FFS will provide the local agency details on the management objectives for ILSF. This public lands control plan must comply with FDACS guidelines and use the appropriate FDACS form. The plan must then be approved and mutually adopted by the county, FFS, and FDACS, prior to initiation of any mosquito control work. Should the local mosquito control district not propose any mosquito control operations on the property, no arthropod control plan is required. See Exhibit Y.

F. Use of Private Land Contractors

The forest manager makes ongoing evaluations of the use of private contractors and consultants to facilitate the total resource management activities of this State Forest. The opportunities for outsourcing land management work include, or are anticipated to include:

1. Herbicide applications
2. Restoration activities
3. Reforestation
4. Site preparation activities
5. Timber harvesting

6. Biological assessments and mapping
7. Contractors for fixed capital and infrastructure improvements

VII. Proposed Management Activities for Natural Communities

In 2016, FNAI completed an inventory and natural community mapping project on ILSF. Current and historic natural community cover types can be found in Exhibits P and Q, and Table 7. The inventory included managed and altered community types which are habitats that have been impacted by humans and do not fit into FNAI's Natural Community Classification. See Tables 8 and 9.

Table 7. Natural Community Types

Community Type	Historic Acres*	Current Acres*
Basin marsh	11	11
Basin swamp	17	17
Baygall	66	74
Depression marsh	8	0
Mesic flatwoods	131	131
Mesic hammock	147	147
Sandhill	4,065	1,675
Sandhill upland lake	18	18
Sinkhole	3	3
Xeric hammock	2	254
Managed and other altered community types**	0	2,137
Unmapped***	102	102
TOTAL	4,570	4,569

* Rounding errors exist

** See Tables 8 & 9

*** Unmapped parcel recently added to ILSF after FNAI mapping survey was completed

Table 8. Managed Community Types

Community Type*	Current Acres
Pine plantation	1,263
TOTAL	1,263

* Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

Table 9. Other Altered Landcover Types

Landcover Type*	Current Acres
Successional hardwood forest	421
Abandoned field / pasture	407
Clearing	3
Road	43
TOTAL	874

* Protocol as described in Appendix 2 of FNAI's "Guide to the Natural Communities of Florida", 2010 Edition.

For the purposes of this management plan, restoration is defined as the process of returning ecosystems to the appropriate structure and species composition, based on soil type. Management during this ten-year period will begin with a forest-wide assessment of the fuel loading, timber densities, reforestation needs, and groundcover in order to develop a five-year comprehensive action plan for prescribed burning and other management activities across ILSF. Strategies may include thinning pine plantations, mowing, or chopping in areas of heavy fuel buildup, application of both dormant and growing season fires, and / or the use of herbicides to control hardwoods / hardwood regeneration. Site preparation and reforestation may be required to increase pine stocking in stands with very poor stocking or in restoration efforts. Fire-return intervals are included as a guide and may vary depending upon specific conditions and are intended to attain desired forest and resource management goals. See Table 10.

Table 10. Prescribed Fire Interval Guide on ILSF

Community Type	Historic Fire-return Intervals**	ILSF Fire Frequency Goal (Local)	Comments
Basin marsh	3 - 25	3 - 25	Plan to burn when water level is right
Basin swamp	N / A	N / A	Burns with adjacent communities
Baygall	25 - 75	25 - 75	We burn the surrounding flatwoods on a 2 to 4 year rotation to establish natural ecotone
Mesic flatwoods	2 - 4	2 - 4	
Mesic hammock	N / A	N / A	
Sandhill	1 - 3	1 - 3	
Sandhill upland lake	N / A	N / A	Burns with adjacent sandhill
Sinkhole	N / A	N / A	
Xeric hammock	N / A	N / A	Some areas receive fire when neighboring sandhill is burned
Abandoned field / pasture	N / A	2 - 4	
Successional hardwood forest	N / A	N / A	
Pine Plantation	N / A	Varies	After the longleaf pine emerge from the grass stage, goal is 1-3 years

* Includes restoration community acreage / ** As determined by FNAI

The following community descriptions, existing condition descriptions, and management recommendations are taken from a 2016 FNAI mapping project report and the Guide to the Natural Communities of Florida (FNAI 2010), as well as from the knowledge and experience gained by FFS during forest inventory efforts and routine field work on ILSF.

To achieve the objectives outlined in this plan, the following management activities will be performed in the natural and managed communities at ILSF during the next ten-year planning period. Goals, desired conditions, standards, and guidelines provide management area direction. These goals and desired conditions may take many planning cycles to attain.

A. Basin Marsh

Description:

Basin marsh is a typically large depressional, non-forested wetland. The soils are generally

acidic, nutrient-poor peats overlying an impervious soil layer. This community type is dominated by herbs or occasionally shrubs that can withstand inundation for most or all of the year.

Trees are sparse, usually only occupying higher areas in the marsh or around the edge. These may include typical swamp species such as pond cypress (*Taxodium ascendens*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), red maple (*Acer rubrum*), loblolly bay (*Gordonia lasianthus*), swamp bay (*Persea palustris*), sweetbay (*Magnolia virginiana*), and slash pine.

Current Conditions:

The single basin marsh mapped on ILSF is in the northeastern corner of the property. It is the southern tip of the large Indian Prairie marsh which extends off-site to the north. The marsh is bordered by mesic hammock vegetation which acts as a barrier to fire.

The basin marsh on ILSF generally meets the desired future conditions. The herbaceous layer is dominated by maidencane (*Panicum hemitomon*), hairy smartweed (*Polygonum hirsutum*), and pickerelweed (*Pontederia cordata*). Other species include lemon bacopa (*Bacopa caroliniana*), haspan flatsedge (*Cyperus haspan*), soft rush (*Juncus effusus* ssp. *solutus*), southern cutgrass (*Leersia hexandra*), frog's bit (*Limnobium spongia*), primrosewillow (*Ludwigia* sp.), and American cupscale (*Sacciolepis striata*). The center of the marsh is open water with scattered white waterlily (*Nymphaea odorata*). Woody vegetation is mainly restricted to the edge of the community and includes common buttonbush (*Cephalanthus occidentalis*), persimmon (*Diospyros virginiana*), and dahoon (*Ilex cassine*). Saplings of the invasive Chinese tallow (*Triadica sebifera*) are present. The vine coral greenbrier (*Smilax walteri*) is occasional.

Fire Regimes:

Fire-return intervals in basin marsh are highly variable, with natural fires most probable at the end of the dry season. Dense sawgrass and maidencane marshes will burn even when there is standing water. Frequency of fire varies depending on the hydrology of the marsh and its exposure to fire from surrounding areas.

Management Needs:

Occasional fires within the basin marshes are necessary to remove encroaching woody vegetation and reduce the buildup of organic soils, which will be timed according to water levels in the basin marsh.

B. Basin Swamp

Description:

Basin swamp is a large, irregularly shaped, forested depression, independent from river systems. It is typically embedded in a non-pyrogenic community and thus not heavily influenced by frequent fires in the surrounding landscape. The vegetation is dominated by hydrophytic trees and shrubs capable of withstanding inundation for most or all of the year. The soils are generally acidic, nutrient-poor peats overlying an impervious soil layer.

The mature canopy is usually closed and dominated by pond cypress and swamp tupelo, and to a lesser extent, red maple, green ash (*Fraxinus pennsylvanicus*), loblolly bay, sweetgum

(*Liquidambar styraciflua*), swamp bay, slash pine, and sweetbay. Shrubs are typically scattered throughout the swamp, although some areas may have heavier concentrations. Subcanopy tree and shrub species primarily include fetterbush (*Lyonia lucida*), large gallberry (*Ilex coriacea*), sweetbay, pop ash (*Fraxinus caroliniana*), Virginia willow (*Itea virginica*), parsley hawthorn (*Crataegus marshallii*), swamp rose (*Rosa palustris*), common buttonbush, and swamp dogwood (*Cornus foemina*), as well as canopy and subcanopy saplings. In densely forested swamps, herbs are sparse and consist mostly of netted chain fern (*Woodwardia areolata*), Virginia chain fern (*Woodwardia virginica*), royal fern (*Osmunda regalis*), cinnamon fern (*Osmunda cinnamomea*), and lizard's tail (*Saururus cernuus*). Epiphytes and vines are common and include Spanish moss (*Tillandsia usneoides*), resurrection fern (*Pleopeltis polypodioides*), poison ivy (*Toxicodendron radicans*), and laurel greenbrier (*Smilax laurifolia*).

Current Conditions:

Basin swamp forms a connection between the east end of Indian Lake and the southern end of the Indian Lake Prairie basin marsh. The canopy is bald cypress (*Taxodium distichum*) and to a lesser degree red maple. The subcanopy has the two canopy species plus swamp laurel oak (*Quercus hemisphaerica*). The shrubs include common buttonbush, common persimmon, swamp doghobble (*Leucothoe racemosa*), wax myrtle (*Myrica cerifera*), and cabbage palm (*Sabal palmetto*). The herbaceous species consist of Carolina redroot (*Lachnanthes caroliniana*), creeping primrosewillow (*Ludwigia repens*), netted chain fern, and Virginia chain fern. The epiphyte Spanish moss and the vine eastern poison ivy are occasional. The basin swamp occurring on ILSF meets the desired future conditions. The hiking trail and wood bridge crossing the basin swamp are a minor disturbance.

Fire Regimes:

Fire intervals in basin swamps are highly variable. The lowest portions of basin swamps rarely, if ever, burn. Graminoid-dominated ecotones often burn in conjunction with the adjacent uplands, and these may burn as frequently as every 2 to 5 years.

Management Needs:

The basin swamp at ILSF is in relatively good condition. Maintaining historic hydrological regimes and limiting ORV traffic from the edge are the recommended focus for forest management. Entry of occasional fires into the basin swamp is necessary to maintain cypress as swamp tupelo and hardwoods dominate basin swamps that burn less often. Cypress and pines are tolerant of light surface fires, but muck-fires burning into the peat layer can kill these trees and lower the ground surface, possibly transforming the swamp into a lake, pond or basin marsh.

C. Baygall

Description:

Baygall is a closed canopy evergreen forest that can develop on slopes with seepage from surrounding uplands or in basins where high water tables maintain saturated conditions. Soils are acidic and generally composed of peat.

Characteristic canopy trees of baygalls include loblolly bay, sweetbay, swamp bay, pond pine (*Pinus serotina*), and slash pine. Common shrubs and small trees include fetterbush, wax myrtle, large gallberry, and highbush blueberry (*Vaccinium corymbosum*). A dense overstory and low

light levels typically limit herbaceous plants to Virginia chain fern, beaksedges (*Rhynchospora* sp.), sedges (*Carex* sp.), sphagnum moss (*Sphagnum* sp.), Carolina redroot (*Lachnanthes caroliniana*), and cinnamon fern. Epiphytes are infrequent to absent. Vines may include laurel greenbrier and muscadine (*Vitis rotundifolia*).

Current Conditions:

Baygall is mapped in several adjacent depressions in the northeastern corner of ILSF. This area is a mosaic of baygall and mesic flatwoods bordering the eastern side of the dominant sandhill ridge. The canopy trees are loblolly bay and slash pine. The subcanopy has shorter loblolly bay and slash pine plus southern magnolia (*Magnolia grandiflora*), sweetbay, and swamp tupelo. The shrubs include loblolly bay, red maple, swamp doghobble, fetterbush, sweetbay, wax myrtle, swamp bay, slash pine, and saw palmetto (*Serenoa repens*). The herbaceous layer has viviparous spikerush (*Eleocharis vivipara*), Carolina redroot, cinnamon fern, beaksedge, sphagnum moss, and Virginia chain fern. The vines cat greenbrier (*Smilax glauca*), laurel greenbrier, coral greenbrier, and muscadine are common.

The baygall on ILSF is generally in a desirable condition.

Fire Regimes:

Baygall should burn infrequently, perhaps only a few times each century in the deepest baygalls. 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.

Management Needs:

Management activities for baygall on ILSF should focus on limiting mechanical soil disturbance in ecotones between baygall and the adjacent uplands. Additionally, when burning the adjacent uplands, fire should be encouraged to burn into the edge of the baygall. The control of feral hogs may be desirable in areas where wetlands are being impacted.

D. Depression Marsh

Description:

Depression marsh is an isolated, non-forested wetland basin imbedded in a pyrogenic matrix community such as pine flatwoods or upland pine. The vegetation is typically arranged in concentric zones related to the length of hydroperiod and depth of flooding. Depression marsh often burns with the surrounding landscape and is seasonally inundated. The deepest zones may have a peat substrate and a continuous layer of sphagnum moss, while shallower zones have a sandy substrate. Depression marshes are distinguished from basin marshes principally by their landscape position which subjects them to more frequent fires.

Trees are generally sparse or absent. The herbaceous layer is moderate to dense, especially where fire frequency and woody plant mortality is high. Typical species include graminoids such as maidencane and sawgrass (*Cladium jamaicense*), flag species such as pickerelweed and bulltongue arrowhead (*Sagittaria lancifolia*), and floating aquatics such as white waterlily. Peelbark St. John's wort (*Hypericum fasciculatum*) frequently forms a zone around the edge of the marsh along with herbs such as beaksedges, Elliott's yellow-eyed grass (*Xyris elliottii*), blue

maidencane (*Amphicarpum muhlenbergianum*), fringed yellow-eyed grass (*Xyris fimbriata*), pipeworts (*Eriocaulon* sp.), and Baldwin's spikerush (*Eleocharis baldwinii*).

Current Conditions:

Depression marsh was not recorded on the current conditions map of ILSF. Five examples are on the historic condition map in the northeastern corner but are no longer distinguishable as marsh in current aerial photography.

Fire Regimes:

Frequency of fire in depression marshes is dependent on the fire-return interval of the surrounding community. Fire is important in limiting hardwood encroachment and peat buildup, while encouraging herbaceous growth in depression marshes.

Management Needs:

Management of the depression marsh areas should focus on allowing fires from the surrounding sandhill and mesic flatwoods to burn into the marsh and extinguish naturally. Firebreaks should be avoided as they may damage the herbaceous ecotone to the marsh. In areas where undesirable woody vegetation has invaded depression marshes, mechanical or chemical control may be utilized to restore the marsh.

E. Mesic Flatwoods

Description:

Mesic flatwoods are relatively open-canopy forests predominantly longleaf pine (*Pinus palustris*). Slash pine is also present, but is usually more frequent in wetter areas (wet flatwoods). There is little or no subcanopy and very few tall shrubs, but a dense ground cover of herbs and short shrubs is typically present. The latter help maintain community structure by fueling growing-season fires. Common shrubs include saw palmetto, coastalplain staggerbush (*Lyonia fruticosa*), gallberry (*Ilex glabra*), wax myrtle, tarflower (*Bejaria racemosa*), dwarf huckleberry (*Gaylussacia dumosa*), blue huckleberry (*Gaylussacia frondosa* var. *tomentosa*), shiny blueberry (*Vaccinium myrsinites*), running oak (*Quercus elliotii*), and dwarf live oak (*Quercus minima*). Mesic flatwoods are noted for their herbaceous diversity, including many rare species. Herbaceous species include wiregrass (*Aristida stricta* var. *beyrichiana*), arrowfeather threeawn (*Aristida purpurascens*), bottlebrush threeawn (*Aristida spiciformis*), lopsided Indiangrass (*Sorghastrum secundum*), witchgrasses (*Dichantherium* sp.), beaksedges, queensdelight (*Stillingia sylvatica*), narrowleaf silkgrass (*Pityopsis graminifolia*), and Curtiss' dropseed (*Sporobolus curtissii*).

The ecotone between mesic flatwoods and wetland communities is an important area for many rare species and is maintained with frequent, low-intensity fires, typically every 2 to 4 years. Soils are mainly in the spodosol family, bearing a spodic horizon (i.e., a clay hardpan) that develops under poorly drained conditions. These low pH soils are characterized by low levels of nutrients and organic matter.

Current Conditions:

Mesic flatwoods are documented only in the northeastern corner of ILSF. This area is a mosaic of baygall and mesic flatwoods bordering the eastern side of the dominant sandhill ridge. The

flatwoods have significant hardwood subcanopy encroachment and little herbaceous groundcover due to fire exclusion in recent decades.

The canopy is dominated by slash pine and occasional longleaf pine. The subcanopy has shorter pines, loblolly bay, laurel oak, myrtle oak (*Quercus myrtifolia*), and water oak (*Quercus nigra*). The tall shrubs include tarflower, gallberry, fetterbush, wax myrtle, swamp bay, water oak, and sparkleberry (*Vaccinium arboreum*). The short shrub layer has the tall shrub species plus dwarf pawpaw (*Asimina pygmea*), netted pawpaw (*Asimina reticulata*), blue huckleberry, coastalplain staggerbush, saw palmetto, and shiny blueberry. The sparse herbaceous groundcover has Elliott's milkpea (*Galactia elliotii*) and bracken fern (*Pteridium aquilinum*). The vines earleaf greenbrier (*Smilax auriculata*), and muscadine are common.

Fire Regimes:

Mesic flatwoods require repeated applications of prescribed fires on a 2 to 4-year cycle, with the seasonality of the prescribed fires based on current fuel loadings.

Management Needs:

A prescribed fire regime using frequent, low intensity fires would help increase herbaceous species and reduce hardwood encroachment, particularly in the growing season as fuel loads are reduced over time.

F. Mesic Hammock

Description:

Mesic hammock is a hardwood forest with a closed canopy of mixed mesophytic species dominated by live oak (*Quercus virginiana*) and often with cabbage palm. It occurs primarily as scattered small stands or fringing borders around swamps or other naturally fire-protected areas. Mesic hammocks are infrequently inundated. The dense canopy maintains relatively high humidity levels; thus fires are a rare occurrence.

Canopy species include live oak, pignut hickory (*Carya glabra*), southern magnolia, sweetgum, and laurel oak. There is a subcanopy of younger canopy species and smaller trees such as American holly (*Ilex opaca*). Shrubs can be sparse to abundant and often include saw palmetto. Herbs are generally sparse due to the closed canopy and dense shrub layer. Species may include woodoats (*Chasmanthium laxum*), woods grass (*Oplismenus hirtellus*), bracken fern, partridgeberry (*Mitchella repens*), and whip nutrush (*Scleria triglomerata*). Epiphytes include Spanish moss, resurrection fern, and ball moss (*Tillandsia recurvata*). Vines are infrequent to common and include muscadine and poison ivy.

Current Conditions:

Mesic hammock occurs in the northeast corner of the site around Indian Lake. The closed canopy is dominated by older mature live oak along with pignut hickory, southern magnolia, and laurel oak. Additional subcanopy species are red cedar (*Juniperus virginiana*), and bully (*Sideroxylon lanuginosa*). The tall shrubs are mainly laurel oak and sparkleberry. Short shrubs include the two tall shrub species plus smallflower pawpaw (*Asimina parviflora*), American beautyberry (*Callicarpa americana*), cabbage palm, and saw palmetto. The infrequent herbs are cypress witchgrass (*Dichantherium dichotomum*), tall elephantsfoot (*Elephantopus elatus*),

partridgeberry, and sarsaparilla vine (*Smilax pumila*). The epiphyte Spanish moss and vines Virginia creeper (*Parthenocissus quinquefolia*) and muscadine are common.

The mesic hammock is overall in good condition with the exception that non-native invasive plants are locally abundant in some areas. Additionally, areas have been disturbed by previous agricultural and industrial uses and contain remnants of paved roads and several abandoned buildings.

Fire Regimes:

Fire is infrequent in mesic hammocks, occurring only during times of extreme drought.

Management Needs:

Prescribed fire in the adjacent sandhill should be allowed to burn into the mesic hammock. This will help maintain the ecotone and prevent the spread of hardwood mesic hammock species into sandhill. Chemical control of non-native invasive species is a priority in localized areas.

G. Sandhill

Description:

Sandhill is a fire-maintained community occurring on well-drained, deep sands. Sandhill is a forest of longleaf pine trees, typically with an open subcanopy of turkey oak (*Quercus laevis*) and sand post oak (*Quercus margaretta*). The shrub layer is open and low in stature. The herbaceous groundcover consists primarily of wiregrass (*Aristida stricta*) mixed with other grasses and forbs such as pineywoods dropseed (*Sporobolus junceus*), narrowleaf silkgrass, bracken fern, queen's delight, aniscented goldenrod (*Solidago odora*), wild indigo (*Baptisia* sp.), milk peas (*Galactia* sp.), whitetop aster (*Aster tortifolius*), tall ironweed (*Vernonia angustifolia*), summer farewell (*Dalea pinnata*), greeneyes (*Berlandiera pumila*), gayfeather (*Liatris* sp.), pinweeds (*Lechea* sp.), and frostweeds (*Helianthemum* sp.). Patches of open sand should be occasional.

Current Conditions:

Sandhill is the dominant natural community at ILSF. High quality sandhill occurs in many areas, especially along SR 326 where recent prescribed fire has been used. The sandhill in the extreme northeastern corner is of fair quality due to fire exclusion and past land clearing. The canopy is dominated by longleaf pine, with some old growth and older mature trees present. Other trees are sand pine (*Pinus clausa*), slash pine, loblolly pine (*Pinus taeda*), sand live oak (*Quercus geminata*), laurel oak, bluejack oak (*Quercus incana*), turkey oak, sand post oak, water oak, live oak, black cherry (*Prunus serotina*), and cabbage palm. Shrubs include saplings of the tree species plus Michaux's hawthorn (*Crataegus michauxii*), common persimmon, rusty staggerbush (*Lyonia ferruginea*), flatwoods plum (*Prunus umbellata*), winged sumac (*Rhus copallinum*), and sparkleberry. Additional short shrubs are woolly pawpaw (*Asimina incana*), gallberry, gopher apple (*Licania michauxii*), coastalplain staggerbush, coastalplain palafox (*Palafoxia integrifolia*), sand blackberry (*Rubus cuneifolius*), saw palmetto, eastern poison oak (*Toxicodendron pubescens*), and deerberry (*Vaccinium stamineum*). The often diverse herbaceous groundcover includes sticky jointvetch (*Aeschynomene viscidula*), Elliott's bluestem (*Andropogon gyrans*), bluestem (*Andropogon* sp.), splitbeard bluestem (*Andropogon ternarius*), corkscrew threeawn (*Aristida gyrans*), arrowfeather threeawn, wiregrass, pineywoods milkweed

(*Asclepias humistrata*), fernleaf yellow false foxglove (*Aureolaria pectinata*), Ware's hairsedge (*Bulbostylis warei*), grassleaf roseline (*Callisia graminea*), coastalplain chaffhead (*Carphephorus corymbosus*), vanillaleaf (*Carphephorus odoratissimus*), spurred butterfly pea (*Centrosema virginianum*), partridge pea (*Chamaecrista fasciculata*), Maryland goldenaster (*Chrysopsis mariana*), goldenaster (*Chrysopsis* sp.), a lichen (*Cladina evansii*), a lichen (*Cladina subtenuis*), a lichen (*Cladonia leporina*), tread softly (*Cnidoscolus stimulosus*), silver croton (*Croton argyranthemus*), Michaux's croton (*Croton michauxii*), flatsedge (*Cyperus* sp.), summer farewell, tick-trefoil (*Desmodium* sp.), needleleaf witchgrass (*Dichanthelium aciculare*), witchgrass, oblongleaf twinflower (*Dyschoriste oblongifolia*), centipede grass (*Eremochloa ophiuroides*), dogtongue wild buckwheat (*Eriogonum tomentosum*), coralbean (*Erythrina herbacea*), yankeeweed (*Eupatorium compositifolium*), downy milkpea (*Galactia volubilis*), Carolina indigo (*Indigofera caroliniana*), pinweed, blazing star, shortleaf gayfeather (*Liatris tenuifolia*), bahiagrass (*Paspalum notatum*), Florida false sunflower (*Phoebanthus grandiflorus*), pitted stripe-seed (*Piriqueta cistoides* ssp. *caroliniana*), narrowleaf silkgrass, bracken fern, blackroot (*Pterocaulon pycnostachyum*), slender beaksedge (*Rhynchospora gracilentia*), Gray's beaksedge (*Rhynchospora grayi*), sandyfield beaksedge (*Rhynchospora megalocarpa*), little bluestem (*Schizachyrium scoparium*), nutrush (*Scleria* sp.), kidneyleaf rosinweed (*Silphium compositum*), lopsided indiagrass, pineywoods dropseed, queen's delight, coastalplain dawnflower (*Stylisma patens*), scurf hoary-pea (*Tephrosia chrysophylla*), and wavyleaf noseburn (*Tragia urens*). The vines are Virginia creeper, earleaf greenbrier, and muscadine. The non-native invasive mimosa (*Albizia julibrissin*) is present in a few areas.

Almost 2,400 additional acres of historic sandhill have been converted to pasture, pine plantation or agriculture field. Most of these areas have been planted with longleaf pine since the FFS took over management of the property.

Fire Regimes:

Prescribed fire should be applied to this community every 1 to 3 years. Emphasis should be placed on growing season fire (when fuel loads dictate), variability in the season, frequency and intensity of fire for preserving species diversity, since different species in the community flourish under different fire regimes.

Management Needs:

Restoration of sandhill is mainly dependent on frequent prescribed burns to decrease the abundance of weedy hardwood species such as laurel oak, transitioning to growing season burns when fuels allow. Most historic sandhills are in a prescribed fire rotation. Areas of successional hardwood forests in the south end of ILSF and scattered pockets of xeric hammock may require the mechanical removal of hardwoods to encourage herbaceous growth and facilitate prescribed burning. Longleaf pine reforestation is largely completed in the abandoned fields / pastures, but additional tree planting may be required in the remaining non-forested areas and as oak abundance is reduced in successional hardwood forests. Groundcover restoration projects, if appropriate, should focus on the former pasture and agricultural fields. FFS may consider seeding or transplanting of wiregrass and other herbs to facilitate burns through these areas. During all management activities, every effort should be made to minimize any detrimental effects to the widespread gopher tortoise (*Gopherus polyphemus*) population. Cogon grass and

natal grass cover an area of the more disturbed historic sandhill and will continue to need management attention.

H. Sandhill Upland Lake

Description:

This sandhill upland lake (Indian Lake) is a shallow rounded solution depression occurring in sandy upland communities. It is generally a permanent water body, but sometimes becomes completely dry during times of extreme drought. Although typically a lentic water body without significant surface inflow or outflow, this lake is fed by the run from Indian Lake Prairie. At low surface flow periods, water may be derived from lateral ground water seepage through the surrounding well-drained uplands and / or from artesian sources via connection with the underlying limestone aquifer. Vegetation may be restricted to a narrow band along the shore composed of hydrophytic grasses and herbs or a dense shrub thicket depending on fire frequency and water level fluctuations. Typical plants include pond cypress), common buttonbush, St. John's wort (*Hypericum* sp.), spikerush (*Eleocharis* sp.), rushes (*Juncus* sp.), yellow pondlily (*Nuphar advena*), white waterlily, panic grass (*Panicum* sp.), pickerelweed, beaksedge, and yellow-eyed grass (*Xyris* sp.).

Current Conditions:

Sandhill upland lake is represented by Indian Lake in the northeastern corner of ILSF. It has been disturbed by ORV trails around the perimeter and shoreline clearing along the north edge. Vegetation is marsh-like at the shallow western end and grades into basin swamp at the eastern end. The center section has open tannic water. Bald cypress trees are scattered along the shoreline. The shrub common buttonbush is locally abundant in the western end. Herbaceous plants include viviparous spikerush, falsefennel (*Eupatorium leptophyllum*), manyflower marshpennywort (*Hydrocotyle umbellata*), tropical bushmint (*Hyptis mutabilis*), Piedmont marshelder (*Iva microcephala*), Carolina redroot, southern watergrass (*Luziola fluitans*), yellow pondlily, rustweed (*Polypremum procumbens*), shortbeak beaksedge (*Rhynchospora nitens*), largeflower rosegiant (*Sabatia grandiflora*), nutrush, and yellow-eyed grass.

Fire Regimes:

Frequency of fire varies depending on the hydrology of the lake and its exposure to fire from surrounding areas, but the lakeshore is sandy bottomed and not expected to burn.

Management Needs:

The sandhill upland lake should be protected from further ORV traffic along its shoreline. Access has been limited by fences and locked gates since the FFS took over management of the property. Diligent monitoring is needed to maintain this barrier. Fire in the surrounding uplands should be allowed to spread into the lake basin to prevent an increase in wooded vegetation. Prevention of groundwater pollution in the surrounding uplands (such as by septic tanks or chemicals) is a priority as it could significantly alter the nutrient balance of the lake water.

I. Sinkhole

Description:

Sinkholes are cylindrical or steep-sided conical depressions that are generally formed by the slumping of soil into subterranean cavities or the solution of limestone near the surface. Sinkhole

vegetation is highly variable and usually influenced by the matrix community in which the sinkhole develops. Vertical or steep walls may be mostly devoid of plants. Where soil covers the underlying rock, the vegetative structure may be that of a well-developed forest that is virtually indistinguishable from the surrounding environment. Shallow sinkholes grade into depression marsh and dome swamp communities since these communities often occupy solution features in the landscape. The density of sinkholes found at ILSF is indicative of the extremely karstic landscape and unconfined aquifer found here.

Current Conditions:

Sinkholes are scattered over the entire ILSF. They are small, shallow depressions with some having exposed limestone. The bottom of the sinks may be temporarily flooded but are usually dry. The canopy trees include black cherry, sand live oak, laurel oak, and live oak. Mockernut hickory (*Carya alba*) is present at one location. The subcanopy has sugarberry (*Celtis laevigata*), southern magnolia, red mulberry (*Morus rubra*), and the non-native invasive mimosa, camphor tree (*Cinnamomum camphora*), chinaberry (*Melia azedarach*), and invasive Chinese tallow. Shrubs include groundsel tree (*Baccharis halimifolia*), American beautyberry, common buttonbush, fetterbush, blackberry (*Rubus* sp.), cabbage palm, elderberry (*Sambucus nigra* ssp. *canadensis*), saw palmetto, and Hercules' club (*Zanthoxylum clava-herculis*). The herbaceous groundcover includes witchgrass, fireweed (*Erechtites hieraciifolius*), American pokeweed (*Phytolacca americana*), beaksedge, southern shield fern (*Thelypteris kunthii*), netted chain fern, and Virginia chain fern. The only epiphyte is resurrection fern (*Pleopeltis polypodioides* var. *michauxiana*). The vines are yellow jessamine (*Gelsemium sempervirens*), Virginia creeper, earleaf greenbrier, saw greenbrier (*Smilax bona-nox*), muscadine, and the non-native invasive air potato (*Dioscorea bulbifera*).

Fire Regimes:

Sinkhole does not typically burn owing to the steep sides and low fuel load.

Management Needs:

Sinkholes can be fragile communities. Logging of the surrounding canopy can increase both solar radiation and sedimentation levels in the sinkhole itself. Major soil disturbances in the adjoining uplands can also disrupt seepage water sources. Large withdrawals of groundwater could substantially lower water tables and reduce the hydroperiods of sinkholes.

The non-native invasive species found in some of the sinkholes should be targeted for eradication. The close connection of sinkholes to aquifers requires especially careful applications of herbicides to avoid groundwater contamination.

J. Xeric Hammock

Description:

Xeric hammock is a closed canopy, oak dominated forest occurring on well drained soils. Xeric hammock is often considered an advanced successional stage of sandy upland communities such as sandhill, scrub, and scrubby flatwoods. Xeric hammock may develop naturally in areas protected from fire by a wetland or other natural barrier such as a downward slope.

Xeric hammock has a closed canopy of predominantly sand live oak, but also often includes live

oak, laurel oak, pignut hickory, southern red oak (*Quercus falcata*), and southern magnolia. The subcanopy consists of younger canopy species, as well as American holly, black cherry, wild olive (*Osmanthus americanus*), red bay (*Persea borbonia*), and persimmon. The understory is dominated by shrubs such as rusty staggerbush, Chapman's oak (*Quercus chapmannii*), saw palmetto, sparkleberry, deerberry, wild olive, yaupon (*Ilex vomitoria*), and American beautyberry. Herbs are generally sparse due to the closed canopy and high litter cover. Species may include witchgrasses, sandyfield beaksedge, and an occasional threeawn (*Aristida* sp.). Epiphytes are common and consist of Spanish moss and ball moss. Vines are occasional and include muscadine and earleaf greenbrier.

Current Conditions:

On ILSF, xeric hammock occurs as widely scattered pockets of dense oaks in the more open sandhill. They appear to be artifacts of long term fire exclusion. The canopy is dominated by sand live oak and laurel oak with common persimmon and longleaf pine less common. The subcanopy has sand live oak, laurel oak, turkey oak, sand post oak, and tough bully (*Sideroxylon tenax*). Tall shrubs include saplings of the tree species plus pignut hickory, water oak, cabbage palm, sparkleberry, and deerberry. Short shrubs are often dominated by sand live oak and laurel oak. Additional species are woolly pawpaw, dwarf pawpaw, American beautyberry, gopher apple, flatwoods plum, turkey oak, water oak, cabbage palm, saw palmetto, eastern poison oak, and deerberry. The herbaceous groundcover is usually sparse and may include bluestem, wiregrass, coastalplain chaffhead, a lichen, needleleaf witchgrass, witchgrass, coralbean, bracken fern, and sandyfield beaksedge. The epiphyte Spanish moss and vines earleaf greenbrier and muscadine are common.

Fire Regimes:

Xeric hammocks rarely burn and typically develop after 30 or more years of fire exclusion. Prescribed fires will be allowed into the edges of these areas and naturally extinguish.

Management Needs:

Management activities in xeric hammock on ILSF should focus on introducing fire in areas where restoration to sandhill is desired. Mechanical removal of the dense hardwood overstory may be required. Soil active herbicides like hexazanone are less desirable on this site due to the overly well drained soils.

K. Managed Community Types

Pine plantations and pastures represent vegetative communities that the FFS manages as integral components of the agency's multi-use management approach. These managed communities provide both ecological benefits, such as wildlife habitat for gopher tortoises and ground and surface water filtration, as well as opportunities for generating revenue that can be used to help offset management costs. Management of plantations and pastures within ILSF is conducted to further ensure compatibility with other management goals and objectives.

1. Pine Plantation

Description:

Planted longleaf pine, and less frequently longleaf pine, form the canopy, with sand live oak, and laurel oak often found as a sparse subcanopy. Tall and short shrubs are common but

never dense, with laurel oak, water oak, *Asimina* sp., American beautyberry, sand live oak, myrtle oak, saw palmetto, American holly, live oak, deerberry, hairy indigo (*Indigofera hirsute*), and blackberry. Except for residual bahia grass and Bermuda grass (*Cynodon dactylon*), herbs are sparse and include flatsedge, broom sedge (*Carex tribuloides*), pinebarren frostweed (*Crocanthemum corymbosum*), blue maidencane (*Amphicarpum muehlenbergianum*), dogfennel (*Eupatorium capillifolium*), *Setaria* sp., rabbitbells (*Crotalaria rotundifolia*), and Michaux's croton. Earleaf greenbrier, and muscadine are frequent vines.

Current Conditions:

Currently this community type consists of longleaf pine with little to no mid-story, with a pasture grass or hairy indigo groundcover and needle cast. These stands were planted between 2009 and 2016. On ILSF all the plantations were planted onto historic sandhill sites that had been used as tilled fields or pastures. Most old pastures were bahia grass, although some Bermuda grass swards were present at acquisition. The old fields also have a high proportion of pasture grasses mixed in with their successional weeds. Although all of these xeric soils are suitable for gopher tortoises, the pasture grass sites tend to host more burrows.

Fire Regimes:

Refer to the fire regimes heading for sandhill, abandoned field / pasture habitats.

Management Needs:

Prescribed burns are the primary management tool for this community between silvicultural operations. Because these sites were disturbed for a significant length of time, intensive groundcover restoration would be required to return them to a natural state.

During this planning cycle the plantation stands will be raked for pine straw. In addition to generating revenue, the pine straw harvest will remove some of the excess nitrogen added to these soils during their cropped history and decrease nutrient flows to the aquifer. Also during this planning cycle the longleaf pine will be ready to thin. Although most sites have been planted, additional planting may be done if needed. After raking, if the basal area of a given plantation is high enough to warrant a harvest, then thinning may start around age 17 to open the stand up and allow sunlight to reach the ground and promote the growth of herbaceous ground cover.

Upland non-native invasive plant control is a challenge on ILSF, and sound treatment and prevention strategies will integrate with the fire and silvicultural operations.

L. Altered Landcover Types

Description:

Altered landcover types are areas where the natural community has been overwhelmingly altered as a result of human activity. Abandoned field / pasture are old fields, fallow pastures, early successional areas formerly grazed or in agriculture without recent activity to maintain the area as pasture or planted field. These areas are often dominated by weedy native (e.g., *Rubus* sp., *Myrica cerifera*) and non-native species (e.g., *Indigofera hirsuta*). Old pastures are generally designated as abandoned when weedy cover from woody species (*Rubus* sp.,

Myrica cerifera, etc.) is greater than 20 percent. The target future condition of these areas is dependent on the historic community. Please refer to the appropriate community type for a more specific explanation of the desired future condition.

1. Successional Hardwood Forest

Description:

Successional hardwood forests are defined by FNAI as closed-canopied forests 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.

Successional hardwood forest on ILSF is historic sandhill, so for desired future conditions see the sandhill section. Successional hardwood forests occur throughout ILSF, in some places too small to map and are included in the larger surrounding natural community polygon.

Current Conditions:

Successional hardwood forest occurs in widely scattered small pockets throughout ILSF. These areas appeared to have been cleared in the past. Canopy trees are dominated by laurel oak and live oak, with interspersed slash pine, longleaf pine, loblolly pine, southern magnolia, black cherry, sand live oak. The subcanopy has southern red oak, bluejack oak, laurel oak, sand post oak, live oak, plus the invasive mimosa and camphor tree. The shrubs include sapling tree species plus Michaux's hawthorn, common persimmon, red cedar, flatwoods plum, scrub palmetto (*Sabal etonia*), cabbage palm, tough bully, sparkleberry, and rusty blackhaw (*Viburnum rufidulum*). Additional short shrubs are woolly pawpaw, dwarf pawpaw, American beautyberry, gopher apple, red bay, winged sumac, sassafras (*Sassafras albidum*), saw palmetto, eastern poison oak, deerberry, and Hercules' club. The herbaceous layer includes wiregrass, velvetleaf milkweed (*Asclepias tomentosa*), spurred butterfly pea, Florida alicia (*Chapmannia floridana*), tick-trefoil, needleleaf witchgrass, witchgrass, oblongleaf twinflower, coralbean, downy milkpea, coastal bedstraw (*Galium hispidulum*), Carolina indigo, sensitive briar (*Mimosa quadrivalvis*), bahiagrass, purple passion-flower (*Passiflora incarnata*), bracken fern, and coastalplain daffodil. Epiphytes are resurrection fern and Bartram's air-plant (*Tillandsia bartramii*). Vines are trumpet creeper (*Campsis radicans*), Virginia creeper, earleaf greenbrier, summer grape (*Vitis aestivalis*), muscadine, and the invasive air-potato.

Fire Regimes:

The historic fire-return interval would have been around 1 to 3 years for sandhill.

Management Needs:

Restoration to sandhill will require logging of the dominant hardwood trees and establishing a prescribed burning program. Non-native invasive plants, mainly mimosa, camphor tree and air potato need to be eradicated.

2. Abandoned Field / Pasture

Description:

Abandoned field / abandoned pasture make up a portion of ILSF. Prior to acquisition this sandhill community was cleared for agriculture. FFS has begun restoration by planting longleaf pine on almost all of this acreage. These trees range from short grass-stage seedlings to trees ten (10) meters or more in height.

The abandoned pasture has a dominant groundcover of Bermudagrass and / or bahiagrass. Some areas are more overgrown with weedy shrub and herb species. Additional herbaceous species include common ragweed (*Ambrosia artemisiifolia*), Mexican tea (*Chenopodium ambrosioides*), Canadian horseweed (*Conyza canadensis*), prairie fleabane (*Erigeron strigosus*), yankeeweed, camphorweed (*Heterotheca subaxillaris*), Virginia pepperweed (*Lepidium virginicum*), cutleaf eveningprimrose (*Oenothera laciniata*), annual phlox (*Phlox drummondii*), and heartwing dock (*Rumex hastatulus*). The sparse canopy consists of infrequent sand live oak. The short shrub layer has woolly pawpaw, American beautyberry, common persimmon, planted longleaf pine, winged sumac, sand blackberry, saw palmetto, and Adam's needle (*Yucca filamentosa*).

Abandoned field lacks the turf grasses and has a similar but more diverse mix of weedy plant species. Canopy cover varies from none to sparse with infrequent common persimmon and black cherry. Tall shrubs are groundsel tree, Michaux's hawthorn, common persimmon, black cherry, and flatwoods plum. The short shrubs add woolly pawpaw, pricklypear (*Opuntia humifusa*), longleaf pine, and sand blackberry. Herbaceous groundcover plants include common ragweed, partridge pea, Canadian horseweed, prairie fleabane, dogfennel, yankeeweed, camphorweed, pinweed, spotted beebalm (*Monarda punctata*), cutleaf eveningprimrose, purple passion-flower, pitted stripe-seed, and heartwing dock. The non-native invasive Natal grass (*Melinis repens*) is infrequent.

Fire Regimes:

The historic fire-return interval of the historic sandhill would have been around 1 to 3 years.

Management Needs:

For abandoned field and pasture, the planted longleaf pine will improve the condition of the community and aid in adding fuel for prescribed fires. Groundcover restoration should be a long-term goal by planting or direct seeding wiregrass and native herbs for groundcover restoration.

3. Other Altered Landcover Types

Description:

Altered landcover types are areas where the natural community has been overwhelmingly altered as a result of human activity. The target future condition of these areas is dependent on the historic community. Please refer to the appropriate community type for a more specific explanation of the desired future condition.

Current Conditions:

Clearing / regeneration (3 acres) – There are several clearings on ILSF. These are recent or historic clearings that have significantly altered groundcover and / or overstory of the original natural community.

Road (43 acres) – The ILSF has an extensive network of roads. Roads ≥ 5 meters wide are delineated on the current natural community map.

Fire Regimes:

N / A

Management Needs:

It may not be practical or desirable to restore some of the ruderal habitats (e.g., developed land, roads, parking lots, etc.) to the historic natural community. Native trees and shrubs should be used in landscaping, and these areas should be monitored for non-native invasive plants.

VIII. References

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IX. **Glossary of Abbreviations**

ARC.....	Acquisition and Restoration Council
API.....	Avatar Properties, Inc.
BMP.....	Best Management Practice
CARL	Conservation and Recreation Lands Acquisition Program
DHR.....	Division of Historical Resources
DRP	Division of Recreation and Parks
DSO	Direct Support Organization
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FDEP	Florida Department of Environmental Protection
FFS	Florida Forest Service
FISC.....	Florida Invasive Species Council
FNAI.....	Florida Natural Areas Inventory
F.S.....	Florida Statutes
FWC	Florida Fish and Wildlife Conservation Commission
ILSF	Indian Lake State Forest

LAAC Land Acquisition Advisory Council
 NRCS..... Natural Resources Conservation Service
 OALE FDACS Office of Agricultural Law Enforcement
 OFW Outstanding Florida Waters
 OOF Operation Outdoor Freedom
 OPS..... Other Personal Services Employment
 SJRWMD St. Johns River Water Management District
 TIITF Board of Trustees of the Internal Improvement Trust Fund
 USFS..... United States Forest Service
 USFWS..... United States Fish and Wildlife Service
 WMA..... Wildlife Management Area

INDIAN LAKE STATE FOREST
2023 LAND MANAGEMENT PLAN

EXHIBITS

Exhibit A

Ten-Year Management Accomplishment Summary

Indian Lake State Forest
10-Year Accomplishments

Site Preparation	Mowing	Acres	72
Planting	Longleaf Containerized	Acres	570
Seedling Survival Checks	Survival Checks	Acres	1,050
Timber Sales	Harvest	Acres	180
Timber Inventory	Inventory Update	Acres	3,396
	New Inventory	Acres	500
	Plots	Acres	114
Invasive Species Control	Natal Grass	Acres	445
	Cogon Grass	Acres	198
	Camphor Tree	Acres	54
	Mimosa	Acres	48
	Paper Mulberry	Acres	13
	China Berry	Acres	10
	Coral Ardisia	Acres	10
	Chinese Tallow	Acres	6
	Caesar Weed	Acres	2
	Air Potato	Acres	1
	Lantana	Acres	1
	Japanese Climbing Fern	Acres	<1
Fire	Wildfire	No.	0
		Acres	0
	Prescribed Burning	No.	45
		Acres	9,383
Recreation	Day Use Estimated Forest Visitors	No.	148,571
	Overnight Primitive Camping	No.	3,097
	Special Use Permit	No.	25
Roadwork	Roads Constructed	Miles	13
	Bridge Built	No.	1
Boundary Maintenance	Maintenance/Marking	Miles	26

I&E Activities	Programs/Tours	No.	10
	Radio/TV Articles	No.	1
	Education/Research	No.	3

Other Activities	Archaeological Sites Monitored	No.	13
	Firelines Maintained	Miles	514
	Fence Replaced	Miles	6

Exhibit B

Boundary and Road Map



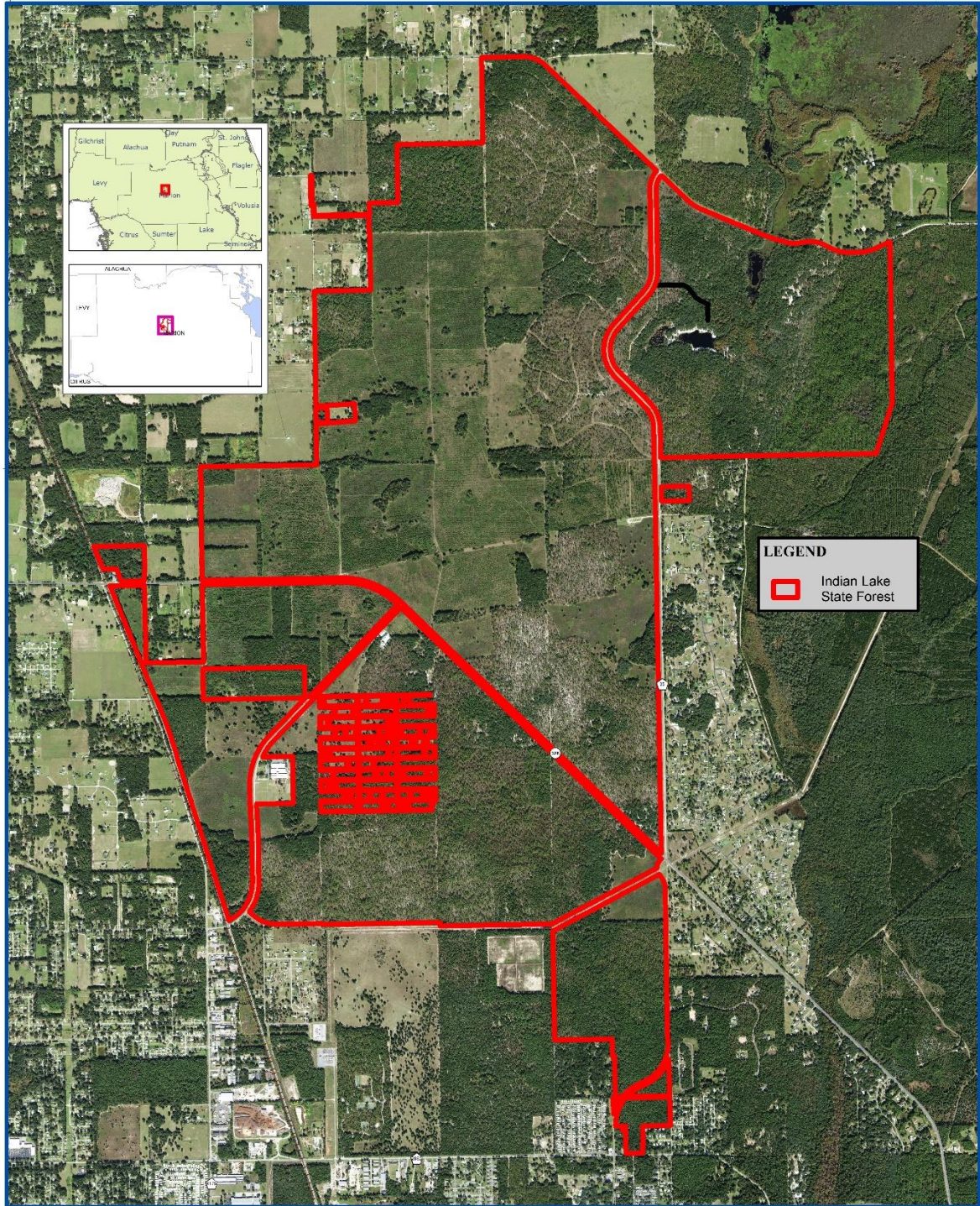
Florida Forest Service

Indian Lake State Forest Boundary & Road Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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Revised: June 2021
The Florida Forest Service is a division of the Florida Department of Natural Resources. It is located at 1000 N. US Highway 1, Tallahassee, FL 32304. For more information, visit www.floridadnr.com.



0.5 0.25 0 Miles



Map Month/Year: March 2021

1,000 500 0 Yards

Exhibit C

Optimal Management Boundary Map



Florida Forest Service

Indian Lake State Forest Optimal Management Boundary Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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Management boundary is courtesy of
the Florida Natural Areas Inventory
Forest & Wood Database (FWD)
from the US Army Corps of Engineers

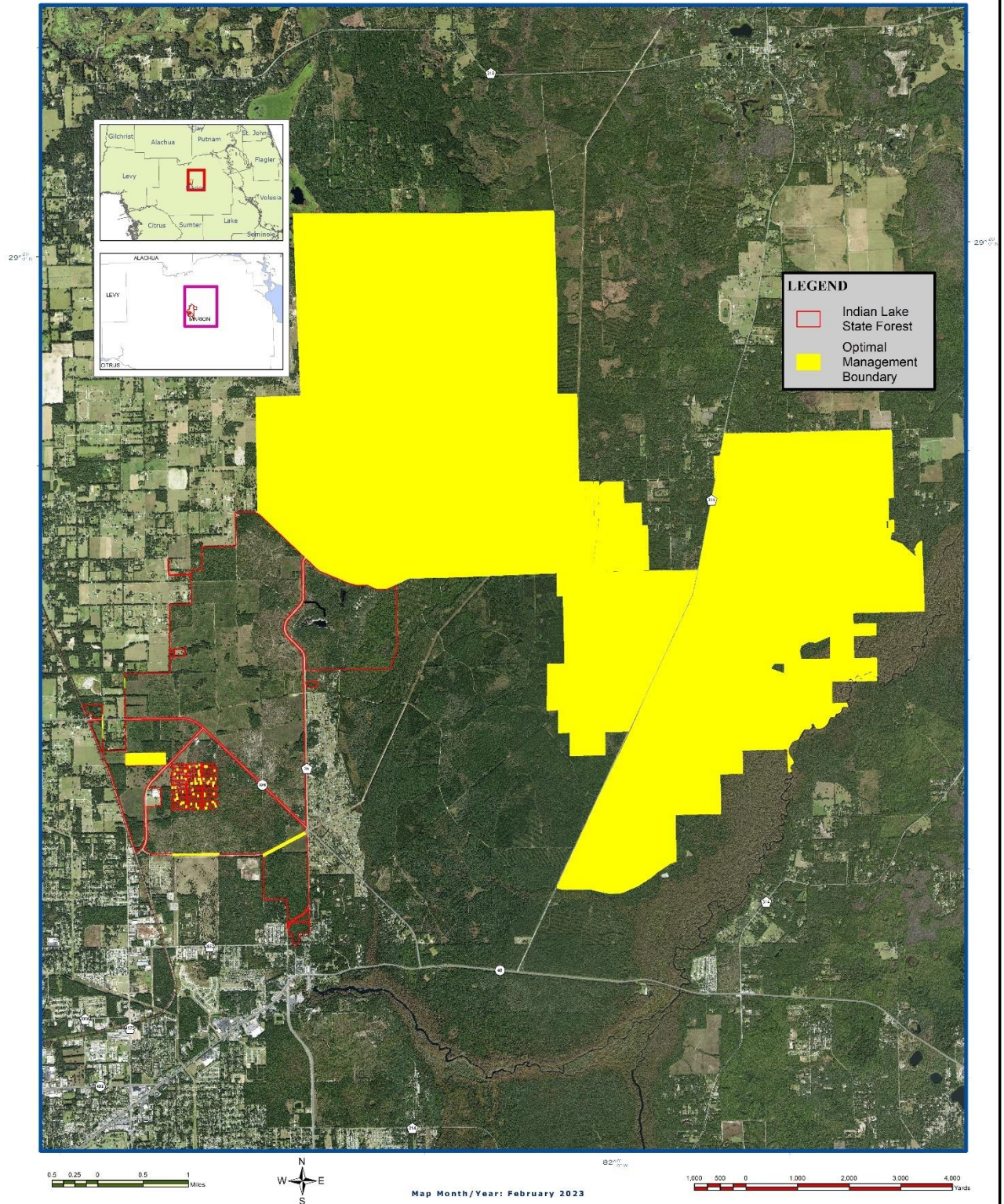


Exhibit D

Facilities, Recreation, and Improvements Map



Florida Forest Service

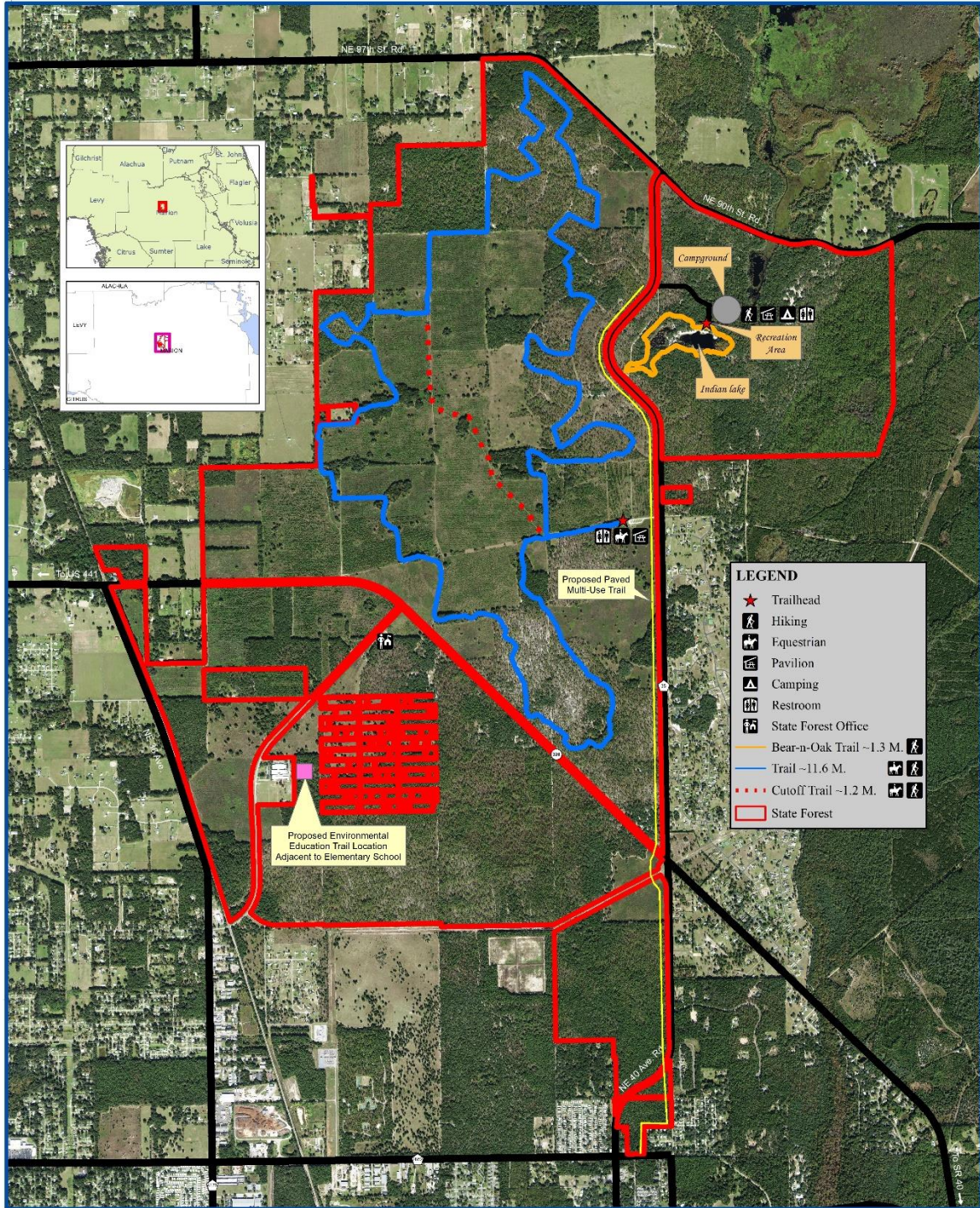
Indian Lake State Forest

Facilities, Recreation and Improvements Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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0.5 0.25 0 Miles



Map Month/Year: July 2021

1,000 500 0 1,000 Yards

Exhibit E

Tract and Acreage Map



Florida Forest Service

Indian Lake State Forest Tract and Acreage Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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injuries resulting from the use of this map.

Managed Area Inventory as of October 1, 2021
The Florida Forest Service Inventory
Inventory Date: 01/01/2021
From the US Army Corps of Engineers

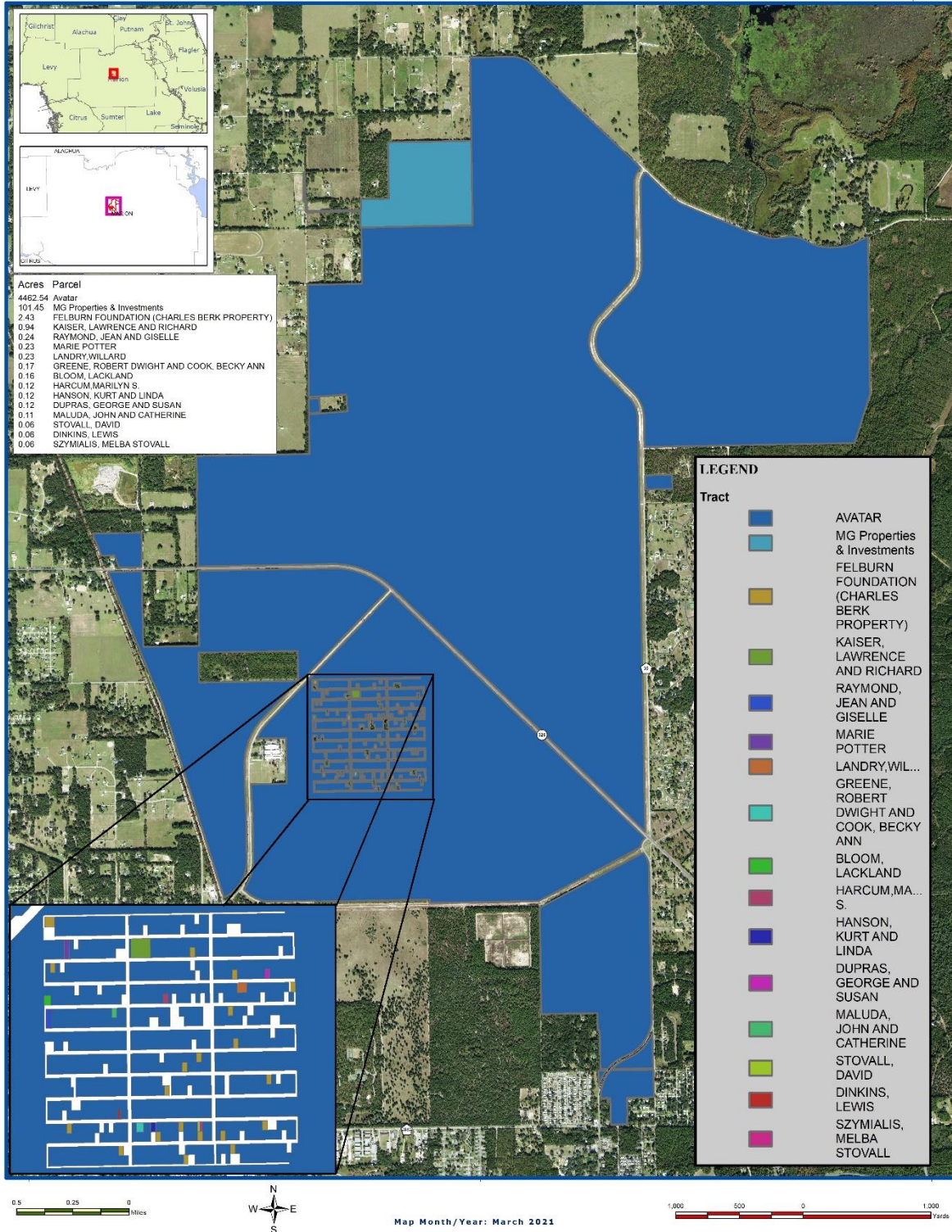


Exhibit F

Proximity to Significant Managed Lands



Florida Forest Service

Indian Lake State Forest

Proximity to Significant Managed Lands

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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Managed Area boundary is the boundary of the Indian Lake State Forest, located in Marion County, Florida. The boundary is based on the 1980s data from the US Army Corps of Engineers.

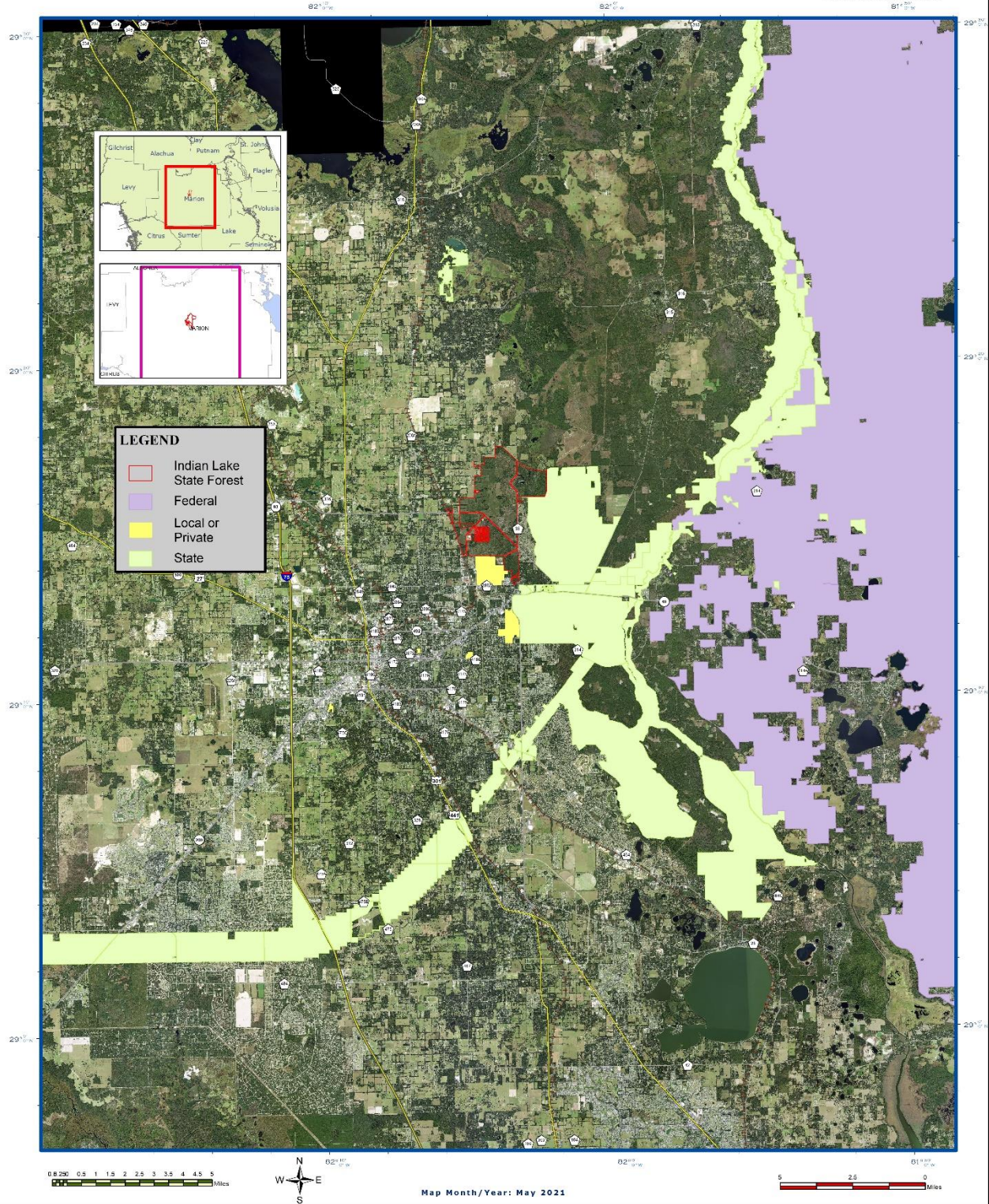


Exhibit G

Department of State Report on Archeological Sites
and Historical Sites



This record search is for informational purposes only and does NOT constitute a project review. This search only identifies resources recorded at the Florida Master Site File and does NOT provide project approval from the Division of Historical Resources. Contact the Compliance and Review Section of the Division of Historical Resources at CompliancePermits@dos.MyFlorida.com for project review information.

March 5, 2021

Patti Anderson
Land Management Planner
Florida Forest Service
Florida Department of Agriculture and Consumer Services

In response to your request on March 5, 2021, the Florida Master Site File lists 11 archeological sites and two cemeteries found on Indian Lake State Forest located Marion County.

When interpreting the results of our search, please consider the following information:

- This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.
- Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.
- Federal, state and local laws require formal environmental review for most projects. This search **DOES NOT** constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at CompliancePermits@dos.MyFlorida.com

Please do not hesitate to contact us if you have any questions regarding the results of this search.

Sincerely,

Eman M. Vovsi, Ph.D.
Florida Master Site File
Eman.Vovsi@DOS.MyFlorida.com



Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
MR01062	AR	F 46	Silver Springs	Human Remains May Be Present	Not Eligible	
MR03292	CM	Mt. Olive Cemetery	Anthony	Established 1894, Graves = 175	Insufficient Info	
MR03293	CM	Indian Lake Cemetery	Silver Springs	Established 1851, Graves = 26	Insufficient Info	
MR03295	AR	Indian Lake East	Silver Springs		Not Eligible	
MR03296	AR	Indian Lake South	Silver Springs		Not Eligible	
MR03297	AR	Indian Lake Prairie East	Silver DSprings		Not Eligible	
MR03298	AR	Indian Lake Northwest	Silver Springs		Not Eligible	
MR03299	AR	Indian Lake North	Silver Springs		Not Eligible	
MR03300	AR	Indian Lake Camp Northeast	Silver Springs		Not Eligible	
MR03301	AR	Straight Knoll	Silver Springs		Not Eligible	
MR03302	AR	Mt Olive Sinkhole	Silver Springs		Eligible	
MR03303	AR	Indian Lake Camp South East	Silver Springs		Not Eligible	
MR03305	AR	North of Cemetery	Silver Springs		Not Eligible	

Exhibit H

Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands

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 Property Definition

Historic properties include archaeological sites and historic structures as well as other types of resources. Chapter 267, Florida Statutes states: “*‘Historic property’ or ‘historic resource’ means any prehistoric district, site, building, object, or other real or personal property of historical, architectural, or archaeological value, and folklife resources. These properties or resources may include, but are not limited to, monuments, memorials, Indian habitations, ceremonial sites, abandoned settlements, sunken or abandoned ships, engineering works, treasure trove, artifacts, or other objects with intrinsic historical or archaeological value, or any part thereof, relating to the history, government, and culture of the state.*”

B. Agency Responsibilities

Per Chapter 267, F.S. and state policy related to historic properties, state agencies of the executive branch must provide the Division of Historical Resources (Division) 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 Division has the opportunity to review and comment on the undertaking. (267.061(2)(a))

State agencies must consult with the Division 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. (267.061(2)(b))

State agencies must consult with Division to establish a program to locate, inventory and evaluate all historic properties under ownership or controlled by the agency. (267.061(2)(c))

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

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 Division 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 Division for review and comment.

Managers of state lands must coordinate any land clearing or ground disturbing activities with the Division to allow for review and comment on the proposed project. The Division'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 Division for review. Projects involving structures fifty years of age or older must be submitted to the Division for a significance determination. In rare cases, structures under fifty 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 Division is necessary to develop a mitigation plan. Furthermore, managers of state property should make preparations 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 the Division'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 Division, 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

Chapter 872, *Florida Statutes* makes it illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, cease all activity in the area that may disturb the remains. Leave the bones and nearby items in place. Immediately notify law enforcement or the local district medical examiner of the discovery and follow the provisions of Chapter 872, FS. 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-the-applicable-laws-and-regulations/>

H. Division of Historical Resources Review Procedure

Projects on state owned or controlled properties may submit projects to the Division 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 Division to complete the review process. The State Lands Consultation Form and additional information about the Division'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

Exhibit I

Soil Survey Map and Descriptions



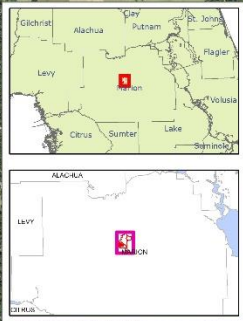
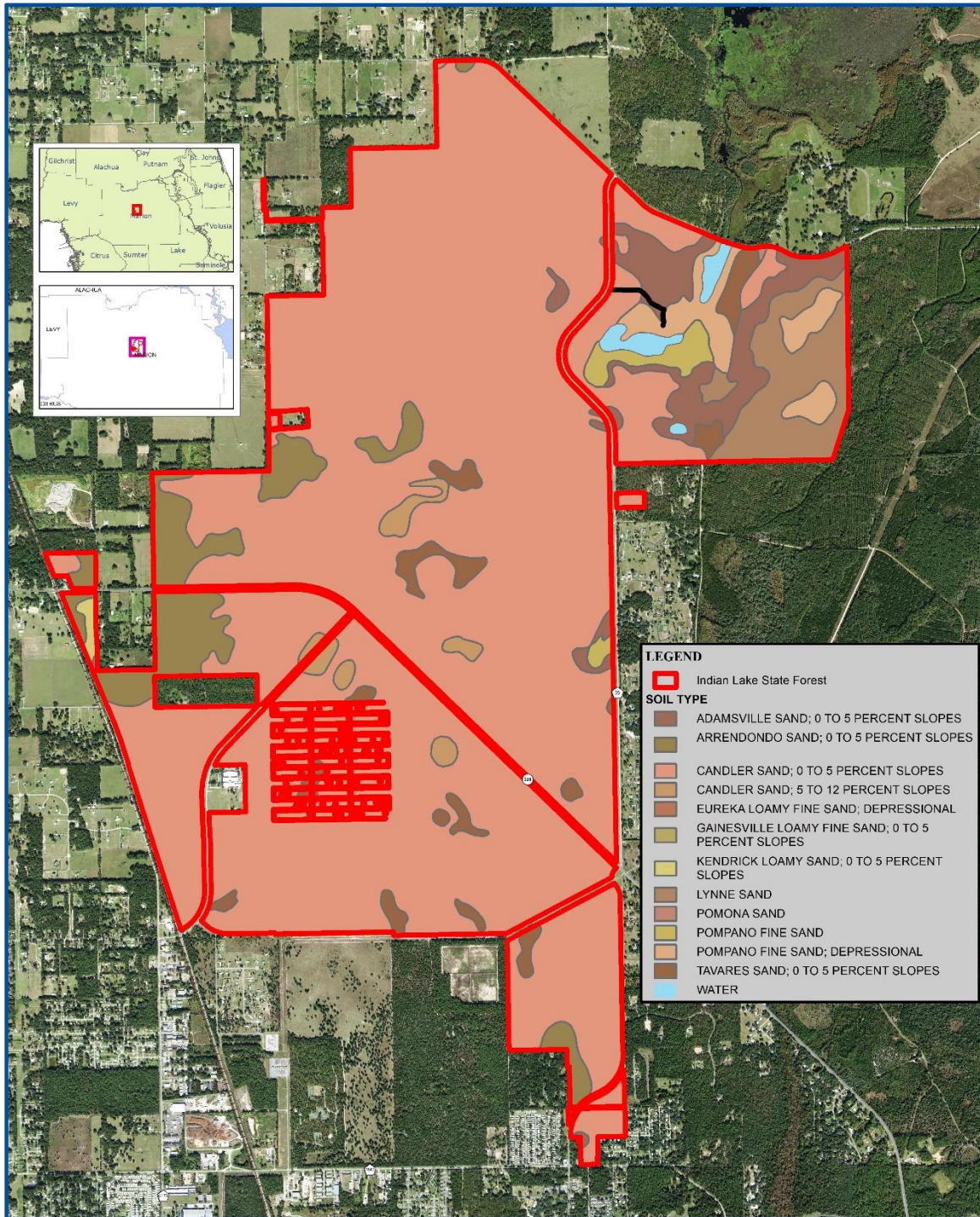
Florida Forest Service

Indian Lake State Forest

Soils Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

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LEGEND	
	Indian Lake State Forest
SOIL TYPE	
	ADAMSVILLE SAND; 0 TO 5 PERCENT SLOPES
	ARRENDONDO SAND; 0 TO 5 PERCENT SLOPES
	CANDLER SAND; 0 TO 5 PERCENT SLOPES
	CANDLER SAND; 5 TO 12 PERCENT SLOPES
	EUREKA LOAMY FINE SAND; DEPRESSIONAL
	GAINESVILLE LOAMY FINE SAND; 0 TO 5 PERCENT SLOPES
	KENDRICK LOAMY SAND; 0 TO 5 PERCENT SLOPES
	LYNNE SAND
	POMONA SAND
	POMPANO FINE SAND
	POMPANO FINE SAND; DEPRESSIONAL
	TAVARES SAND; 0 TO 5 PERCENT SLOPES
	WATER

0.5 0.25 0 Miles



Map Month/Year: April 2021

1,000 500 0 1,000 Yards

Map Unit Description (Brief, Generated)

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, provide information on the composition of map units and properties of their components.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.

Report—Map Unit Description (Brief, Generated)

Marion County Area, Florida

Map Unit: 2—Adamsville sand, 0 to 5 percent slopes

Component: Adamsville (85%)

The Adamsville component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pomona, non-hydric (4%)

Generated brief soil descriptions are created for major soil components. The Pomona, non-hydric soil is a minor component.

Component: Pompano (4%)

Generated brief soil descriptions are created for major soil components. The Pompano soil is a minor component.

Component: Candler (4%)

Generated brief soil descriptions are created for major soil components. The Candler soil is a minor component.

Component: Tavares (3%)

Generated brief soil descriptions are created for major soil components. The Tavares soil is a minor component.

Map Unit: 9—Arredondo sand, 0 to 5 percent slopes**Component:** Arredondo (80%)

The Arredondo component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Candler (7%)

Generated brief soil descriptions are created for major soil components. The Candler soil is a minor component.

Component: Gainesville (7%)

Generated brief soil descriptions are created for major soil components. The Gainesville soil is a minor component.

Component: Sparr (4%)

Generated brief soil descriptions are created for major soil components. The Sparr soil is a minor component.

Component: Sinkhole (1%)

Generated brief soil descriptions are created for major soil components. The Sinkhole soil is a minor component.

Component: Rock outcrop (1%)

Generated brief soil descriptions are created for major soil components. The Rock outcrop soil is a minor component.

Map Unit: 22—Candler sand, 0 to 5 percent slopes**Component:** Candler (90%)

The Candler component makes up 90 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of eolian deposits and/or sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Tavares (5%)

Generated brief soil descriptions are created for major soil components. The Tavares soil is a minor component.

Component: Millhopper (5%)

Generated brief soil descriptions are created for major soil components. The Millhopper soil is a minor component.

Map Unit: 23—Candler sand, 5 to 12 percent slopes**Component:** Candler (85%)

The Candler component makes up 85 percent of the map unit. Slopes are 5 to 12 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian deposits and/or sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Apopka (6%)

Generated brief soil descriptions are created for major soil components. The Apopka soil is a minor component.

Component: Kendrick (5%)

Generated brief soil descriptions are created for major soil components. The Kendrick soil is a minor component.

Component: Adamsville (3%)

Generated brief soil descriptions are created for major soil components. The Adamsville soil is a minor component.

Component: Pompano (1%)

Generated brief soil descriptions are created for major soil components. The Pompano soil is a minor component.

Map Unit: 35—Gainesville loamy sand, 0 to 5 percent slopes

Component: Gainesville (85%)

The Gainesville component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Hague (4%)

Generated brief soil descriptions are created for major soil components. The Hague soil is a minor component.

Component: Kendrick (4%)

Generated brief soil descriptions are created for major soil components. The Kendrick soil is a minor component.

Component: Arredondo (4%)

Generated brief soil descriptions are created for major soil components. The Arredondo soil is a minor component.

Component: Zuber (3%)

Generated brief soil descriptions are created for major soil components. The Zuber soil is a minor component.

Map Unit: 44—Kendrick loamy sand, 0 to 5 percent slopes

Component: Kendrick (85%)

The Kendrick component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, fluviomarine terraces, coastal plains. The parent material consists of sandy marine deposits over loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lochloosa (5%)

Generated brief soil descriptions are created for major soil components. The Lochloosa soil is a minor component.

Component: Gainesville (5%)

Generated brief soil descriptions are created for major soil components. The Gainesville soil is a minor component.

Component: Arredondo (5%)

Generated brief soil descriptions are created for major soil components. The Arredondo soil is a minor component.

Map Unit: 48—Lynne sand

Component: Lynne, non-hydric (65%)

The Lynne, non-hydric component makes up 65 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lynne, hydric (20%)

The Lynne, hydric component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Eaton, non-hydric (4%)

Generated brief soil descriptions are created for major soil components. The Eaton, non-hydric soil is a minor component.

Component: Eureka, hydric (4%)

Generated brief soil descriptions are created for major soil components. The Eureka, hydric soil is a minor component.

Component: Electra (4%)

Generated brief soil descriptions are created for major soil components. The Electra soil is a minor component.

Component: Pomona, hydric (3%)

Generated brief soil descriptions are created for major soil components. The Pomona, hydric soil is a minor component.

Map Unit: 61—Pomona sand**Component:** Pomona, non-hydric (60%)

The Pomona, non-hydric component makes up 60 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during May, June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pomona, hydric (20%)

The Pomona, hydric component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during May, June, July, August, September, October, November. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Placid (5%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Pompano (5%)

Generated brief soil descriptions are created for major soil components. The Pompano soil is a minor component.

Component: Electra (5%)

Generated brief soil descriptions are created for major soil components. The Electra soil is a minor component.

Component: Lynne, non-hydric (5%)

Generated brief soil descriptions are created for major soil components. The Lynne, non-hydric soil is a minor component.

Map Unit: 62—Pompano sand

Component: Pompano (85%)

The Pompano component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Placid (8%)

Generated brief soil descriptions are created for major soil components. The Placid soil is a minor component.

Component: Pomona, non-hydric (7%)

Generated brief soil descriptions are created for major soil components. The Pomona, non-hydric soil is a minor component.

Map Unit: 63—Pompano sand, depressional

Component: Pompano, depressional (80%)

The Pompano, depressional component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Anclote (7%)

Generated brief soil descriptions are created for major soil components. The Anclote soil is a minor component.

Component: Placid, depressional (7%)

Generated brief soil descriptions are created for major soil components. The Placid, depressional soil is a minor component.

Component: Pomona, hydric (6%)

Generated brief soil descriptions are created for major soil components. The Pomona, hydric soil is a minor component.

Map Unit: 69—Tavares sand, 0 to 5 percent slopes

Component: Tavares (85%)

The Tavares component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 0 within 30 inches of the soil surface.

Component: Apopka (6%)

Generated brief soil descriptions are created for major soil components. The Apopka soil is a minor component.

Component: Candler (4%)

Generated brief soil descriptions are created for major soil components. The Candler soil is a minor component.

Component: Adamsville (3%)

Generated brief soil descriptions are created for major soil components. The Adamsville soil is a minor component.

Component: Zolfo (2%)

Generated brief soil descriptions are created for major soil components. The Zolfo soil is a minor component.

Map Unit: 99—Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Data Source Information

Soil Survey Area: Marion County Area, Florida
Survey Area Data: Version 18, Jun 9, 2020

Exhibit J

Department of Environmental Protection
Outstanding Florida Waters



FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

November 2, 2020

Ms. Patti Anderson
Land Management Plan Coordinator, Florida Forest Service
Florida Department of Agriculture and Consumer Services
3125 Conner Boulevard, Suite I-262, Mail Stop C-25
Tallahassee, FL 32399-1650

RE: Indian Lake State Forest

Dear Ms. Anderson:

Thank you for your inquiry regarding the surface water quality classifications and Outstanding Florida Waters (OFW) within or near Indian Lake State Forest in Marion County. All of the surface waters within, adjacent to, or within 5 miles of Indian Lake State Forest are classified as Class III waters according to rule 62-302.400, Florida Administrative Code (FAC).

According to subsection 62-302.700(9), FAC, there are no OFW within or adjacent to the Indian Lake State Forest but there are four OFWs that are relatively nearby (see attached map). These are the Silver River Special Water and the Silver River State Park, each a little over 0.5 miles away, the Oklawaha River Aquatic Preserve approximately 1.5 miles southeast and the Oklawaha River Special waters approximately 3.2 miles southeast.

You may also be interested to know that, according to the Florida Natural Areas Inventory Managed Areas data layer, there are several other parcels within, adjacent, or nearby that are considered conservation lands at a Federal, State, or Local level. However, these have not been designated as OFWs other than as described above.

If you have any questions or need additional information about this response, please feel free to contact me via E-mail at Janet.Klemm@FloridaDEP.gov or by phone at 850-245-8427 or contact Talia E. Smith via E-mail at Talia.E.Smith@FloridaDEP.gov or by phone at 850-245-8068.

Sincerely,

Janet Klemm
Standards Development Section

Indian Lake State Forest Map:

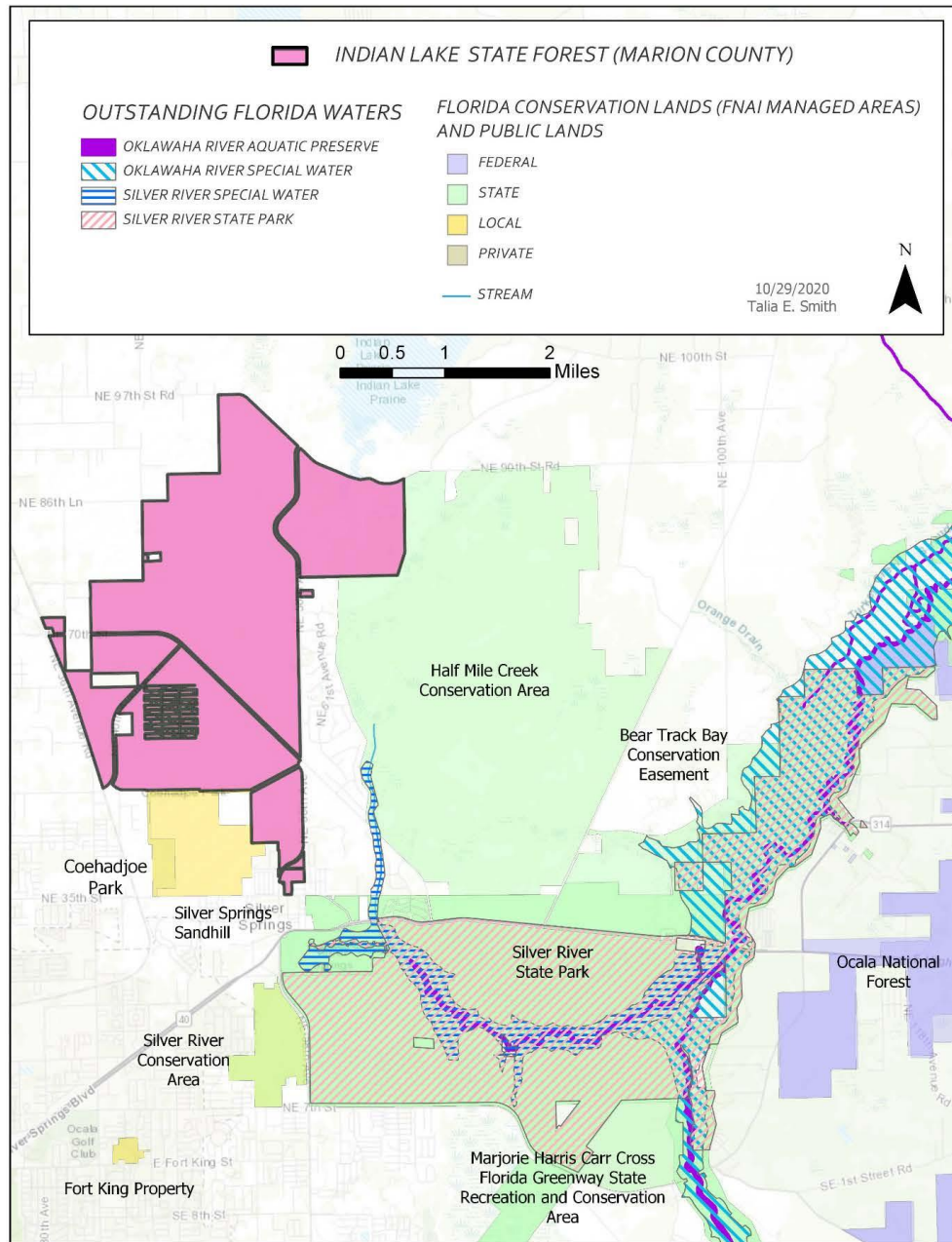


Exhibit K

Water Resources and BMAP Maps (With Monitoring Wells)



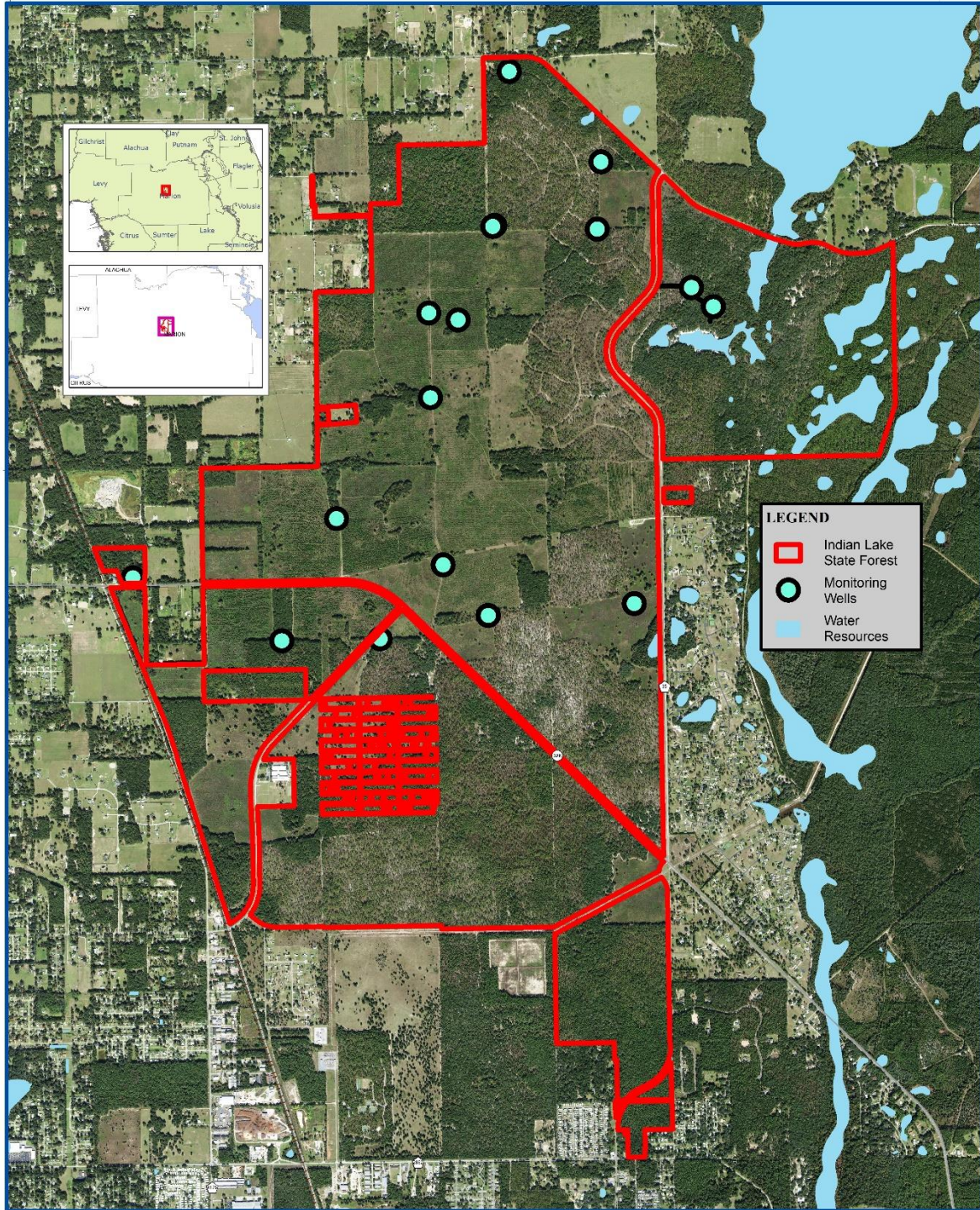
Florida Forest Service

Indian Lake State Forest Water Resources Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
This map was prepared by the Florida Forest Service (FFS) as a service to the public. It is not intended to be used for any purpose other than general information. The FFS does not warrant the accuracy or completeness of the information contained herein. The user assumes all liability for any use of this map. The FFS is not responsible for any errors or omissions. The FFS is not responsible for any damages, including consequential damages, arising from the use of this map. The FFS is not responsible for any claims, damages, or liabilities, including consequential damages, arising from the use of this map. The FFS is not responsible for any claims, damages, or liabilities, including consequential damages, arising from the use of this map.

Revised: May 2008
Original: May 2008
From the US Army Corps of Engineers



0.5 0.25 0 Miles



Map Month/Year: August 2021

1,000 500 0 1,000 Yards



Florida Forest Service

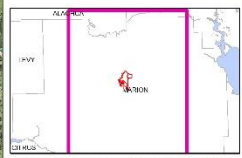
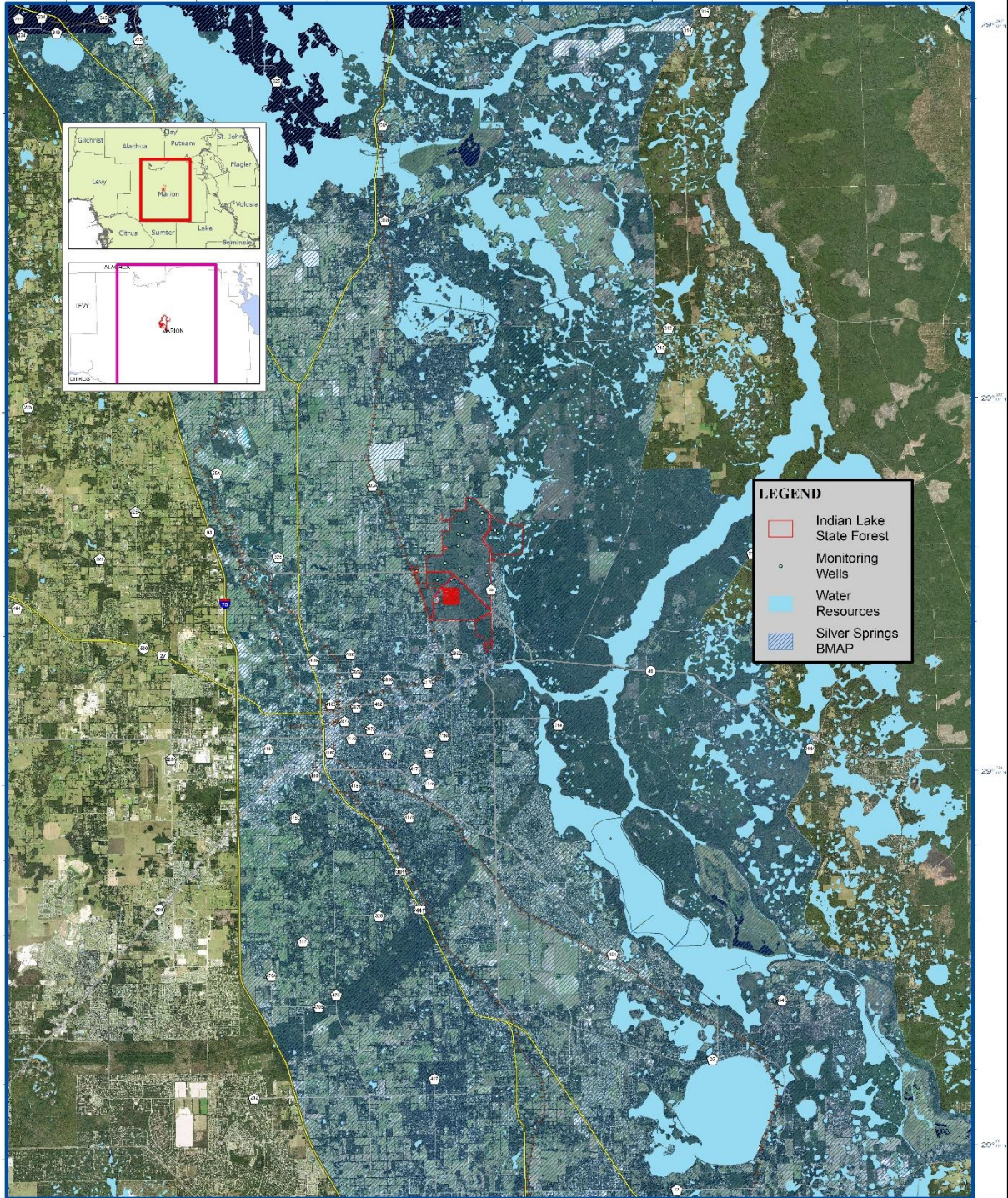
Indian Lake State Forest

BMAP Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
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map.

Revised Area Inventory as of August 2021
The Florida Forest Service is a division of
the Florida Department of Natural Resources.
For more information, visit www.floridadnr.com
or call 1-800-352-2263.



- LEGEND**
- Indian Lake State Forest
 - Monitoring Wells
 - Water Resources
 - Silver Springs BMAP

0 0.250 0.5 1 1.5 2 2.5 3 3.5 4 4.5 Miles



Map Month/Year: August 2021

1:00000 0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000 14,000 15,000 16,000 17,000 18,000 19,000 20,000 Yards

Exhibit L

Florida Natural Areas Inventory Managed Area Tracking Record



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

March 10, 2021

Patti Anderson
Florida Forest Service
Florida Department of Agriculture and Consumer Services
3125 Conner Boulevard, Suite I-258, Mail Stop C-25
Tallahassee, FL 32399-1650

Dear Ms. Anderson,

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

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

Project: Indian Lake State Forest

Date Received: 3/5/2021

Location: Marion County

Based on the information available, this site appears to be located in a significant region of natural areas and habitat for several rare species.

Element Occurrences

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

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

*Several of the species and natural communities tracked by the Inventory are considered **data sensitive**. Occurrence records for these elements contain information that we consider sensitive due to collection pressures, extreme rarity, or at the request of the source of the information. The Element Occurrence Record has been labeled "Data Sensitive." We request that you not publish or release specific locational data about these species or communities without consent from the Inventory. If you have any questions concerning this please do not hesitate to call.*



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

Likely and Potential Rare Species

Tracking Florida's Biodiversity

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

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

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

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

CLIP

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

For more information on CLIP, visit <http://www.fnai.org/clip.cfm>.

Managed Areas

Portions of the site appear to be located within the Indian Lake State Forest, managed by the FL Dept. of Agriculture and Consumer Services, Florida Forest Service.

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

Land Acquisition Projects

This site appears to be located within Florida's First Magnitude Springs Florida Forever BOT Project - Silver Springs, which is part of the State of Florida's Conservation and Recreation Lands land acquisition program. For more information on this Florida Forever Project, contact the Florida Department of Environmental Protection, Division of State Lands.

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

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

Please visit www.fnai.org/trackinglist.cfm for county or statewide element occurrence distributions and links to more element information.

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

designed for the purposes of conservation planning and scientific research, and are not intended for use as the primary criteria for regulatory decisions.

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

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

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl



1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-3207
(850) 661-9364 Fax
www.fnai.org

FLORIDA Natural Areas INVENTORY

Element Occurrences

- Animals
- Plants
- Communities
- Other
- Data Sensitive
- Point Indicates General Vicinity of Element
- U.S. Fish & Wildlife Service Scrub Jay Survey 1992-96

Conservation Lands

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

Land Acquisition Projects

- Florida Forever
- Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units

- County Boundary
- Roads
- Water

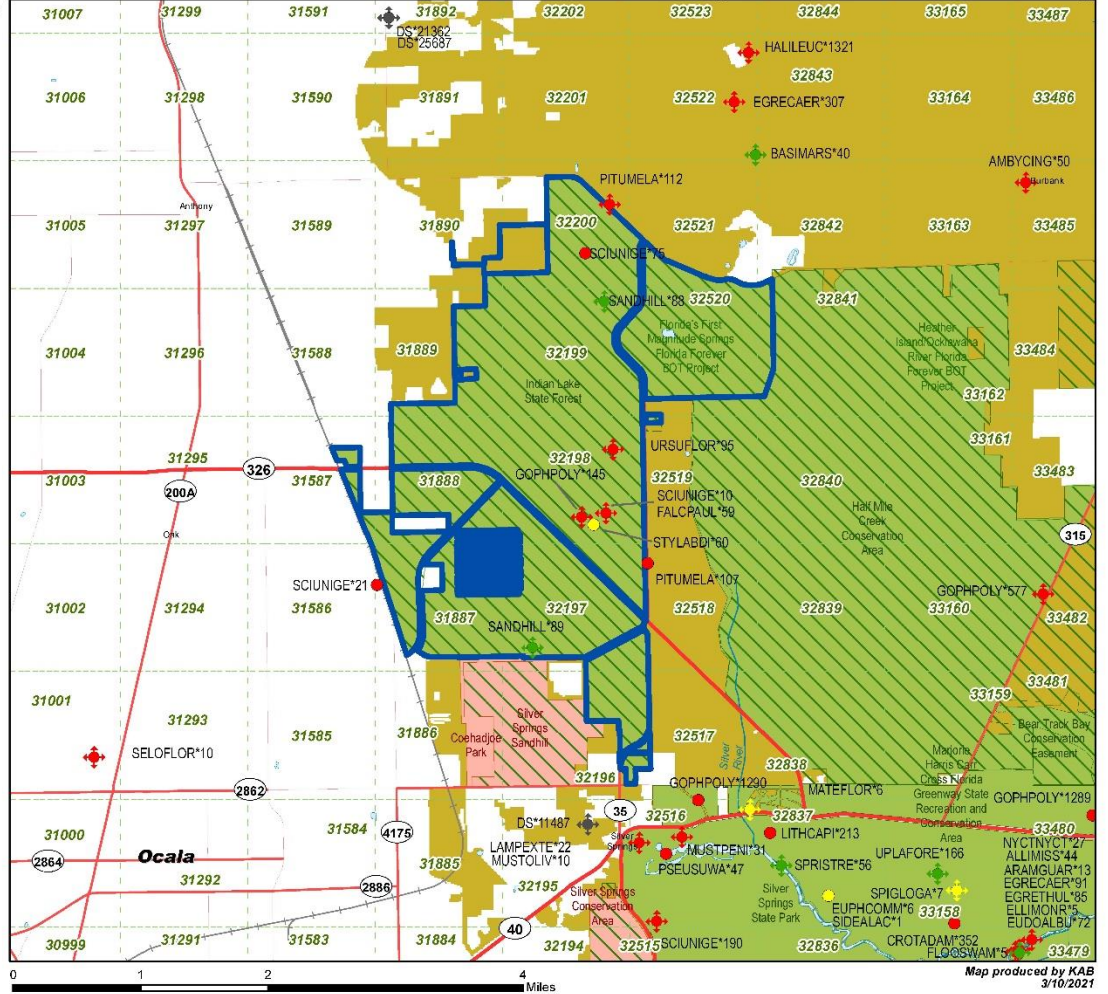
NOTE

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

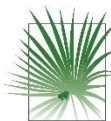
Indian Lake State Forest

Site boundaries are approximate.

Marion County



Map produced by KAB
3/10/2021



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CLIP v4.0 Resource Priorities

Biodiversity Resource Category

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

Landscape Resource Category

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

Surface Water Resource Category

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

Aggregated CLIP Priorities

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

Site Boundary

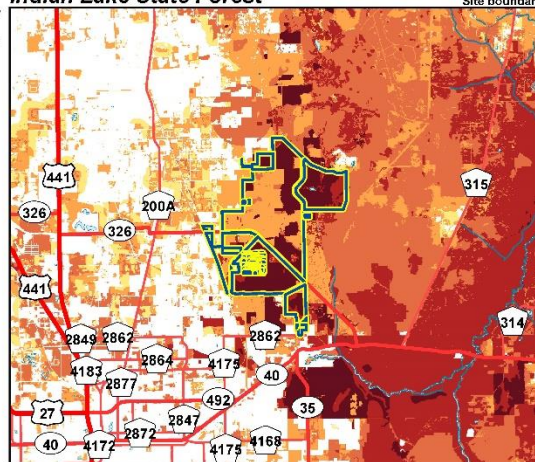
Map should not be interpreted without accompanying documents.

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

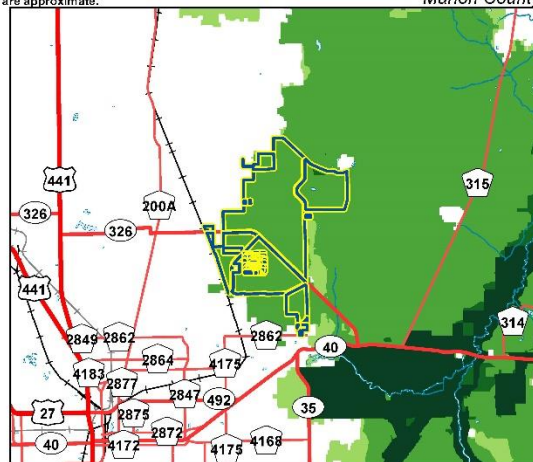
Indian Lake State Forest

Site boundaries are approximate.

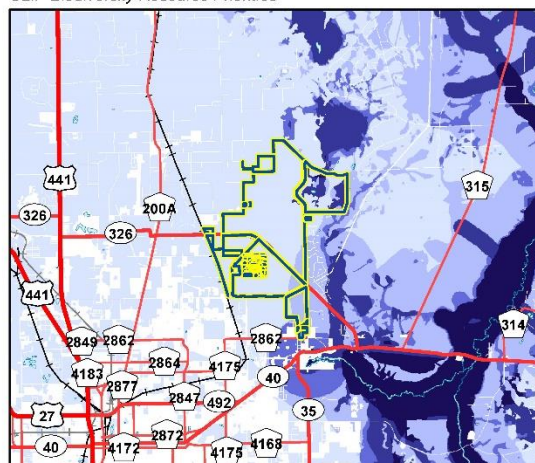
Marion County



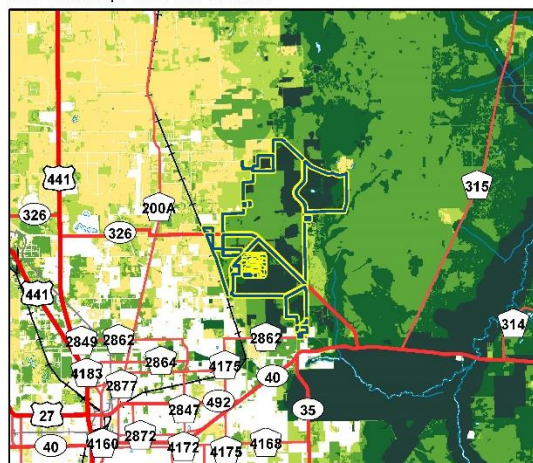
CLIP Biodiversity Resource Priorities



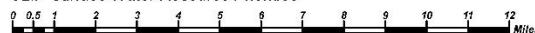
CLIP Landscape Resource Priorities



CLIP Surface Water Resource Priorities



CLIP Aggregated Resource Priorities



Map produced by KAB
3/10/2021



Florida Natural Areas Inventory
Managed Area Element Summary
Indian Lake State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
<i>Stylisma abdita</i>	scrub stylisma	G3	S3	N	E
REPTILES					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
BIRDS					
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST
MAMMALS					
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Note: Summary includes all documented and likely species occurrence records currently in the FNAI database.



FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ALLIMSS*44	<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	FT(S/A)	2007-09-06	freshwater prairie, spring-fed river, floodplain swamp, blackwater stream	At least 14 alligators observed.
AMBYCING*50	<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT	1954 pre	1993-03-14: Palis observed that undeveloped land in the Burbank area has been mechanically site prepared and planted to <i>Pinus elliotii</i> . 1954-Pre: no data provided by Neill; however, soils of Burbank area include Eaton, Lynne, and Eureka Sands, indicating that area once supported pine flatwoods (Marion Co. Soil Survey Sheet 61) (PNDFAL02FLUS).	1993-03-14: Palis dipnetted a potential breeding site within the Fort McCoy WMA (T13S, R23E, SEC 33). No flatwoods salamander larvae were encountered. Additional sampling is warranted on WMA since some remnant <i>Aristida stricta</i> still exists (PNDFAL02FLUS). 1954-pre: reported by Neill as having been found here, no further data given (A54NEI01FLUS).
ARAMGUAR*13	<i>Aramus guarauna</i>	Limpkin	G5	S3	N	N	2007-03-21	2004-05-26: Limpkins observed along spring run stream and adjacent forest (PNDMUL02FLUS). In past several years, there has been significant degradation of water quality in the spring system due to urban and agricultural run-off (G02DRP02FLUS). 1991-09-19 PRISTINE SPRING-FED RIVER THROUGH HYDRIC HAMMOCK (F91TEL01FLUS).	Limpkins observed from 1991 - 2007 with a high number of nine birds (including four young) seen in 1996 and eight individuals seen in 1991. Element occurrence runs from the head springs to the Ocklawaha River.

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
BASIMARS*40	Basin marsh		G4	S3	N	N	2004	LARGE AREA OF WET PRAIRIE INTERSPERSED WITH NUMEROUS AREAS OF OPEN WATER, WHICH CONTAIN FRAGRANT WATER LILY (NYMPHAEA ODORATA). PRAIRIE DOMINATED BY MARSH GRASSES AND SEDGES. TRANSITIONAL ZONES DOMINATED BY WAX MYRTLE (MYRICA CERIFERA), SWEETGUM (LIQUIDAMBAR STYRACIFLUA), SALT BUSH (BACCHARIS HALIMIFOLIA), SLASH PINE (PINUS ELLIOTTII), A GOLDENROD (SOLIDAGO SP.), BLACKBERRY (RUBUS CUNEIFOLIUS), A BROOMSEDGE (ANDROPOGON SP.), AND MARSH CORDGRASS (SPARTINA BAKERI).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Wet prairie EO number 33 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-23) (U05FNA02FLUS). LARGE AREA OF WET PRAIRIE
CROTADAM*352	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N	2013-07-15	Silver Springs State Park north of Silver River, adjacent part of Cross Florida Greenway, and private parcels in vicinity. SR-40 is a high-traffic highway that cuts across the occurrence. 2013-04-01: capture point (U13SMI01FLUS) was forested upland (sandhill?) above the Silver River floodplain as seen on aerial photograph. 2012-04-30: capture point (U13SMI01FLUS) was forested as seen on aerial photograph.	2012-2013: multiple captures and road-kills discovered by D. Smith and/or colleagues in vicinity of Silver Springs State Park, CR-326, and SR-40; see source features and U13SMI01FLUS for ages, sizes, and specific dates and locations. 1953-08-00: Specimen collected at "Silver Springs" (S53QUIUCFLUS).
DS*11487	Data Sensitive Element	Data Sensitive	G5	S3	N	N	ZZ	Data Sensitive	Data Sensitive
DS*21362	Data Sensitive Element	Data Sensitive	G2G3	S2S3	N	N	1944-04-01	Data Sensitive	Data Sensitive
DS*25687	Data Sensitive Element	Data Sensitive	G3	S3	N	N	1944-04-01	Data Sensitive	Data Sensitive

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
EGRECAER*307	<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST	1989-05-22	Willow island in freshwater prairie.	1989/05/22: J.A. Hovis, GFC, observation. Surveyed from helicopter. Site not visited by plane in 1989. "Total" = E (includes CAEG, LBHE).
ELLMONR*5	<i>Elliptio monroensis</i>	St. Johns Elephantear	G1G2	S1S2	N	N	2014 pre	Oklawaha and/or Silver River, tributary of St. Johns River.	Williams et al. (2014) depicts 1 site from which this occurrence has been documented.
FALCPAUL*59	<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST	1984	UPLAND XERIC WOODLANDS (SANDHILLS AND XERIC HAMMOCK) PARTLY TO MOSTLY DISTURBED OR CLEARED, ADJACENT TO FRESHWATER PRAIRIES.	REPEATEDLY RECORDED ON SITE.
FLOOSWAM*5	Floodplain swamp		G4	S4	N	N	2007-03-21	No general description given	2007-03-21: significant soil subsidence evident due to low water levels over many years (PNDLAM04FLUS). 2004: Update to last obs date was based on interpretation of aerial photography (U05FNA02FLUS). 1993-05-21: FOREST W/ TREES OF VARIABLE SIZES. CYPRESS UP TO 61.8' 5' UP. MAJOR TREE SPP. BALD CYPRESS, BLACKGUM, POP ASH, FLORIDA ASH, RED MAPLE, PANICUM GYMNOCARPON GROUND COVER IN PLACES (UNDMAR01FLUS).
GOPHPOLY*1290	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2002-03-28	2002-03-28: Ruderal edge of fire-suppressed sandhill right on road (U03HER02FLUS, PNDHER03FLUS, PNDSCH03FLUS).	2002-03-28: One active burrow and one adult observed (U03HER02FLUS, PNDHER03FLUS, PNDSCH03FLUS).
GOPHPOLY*145	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2018-10 – 2018-12	FNAI NCs: sandhill and abandoned field/pasture. Rubus is dominant ground cover in most of abandoned field/pasture - restoration efforts are underway. Sandhill was in good condition.	FNAI 2018 LTDS survey estimated a population of 622 (F18FNA23FLUS). Burrows observed earlier in 1984 and 1993.
LAMPEXTE*22	<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST	1970-10-26	No general description given	3 FSM SPECIMENS (UF-81, 2 UNCAT.), 5 OCTOBER 1933, 1 NOVEMBER 1965 & 28 OCTOBER 1970). FIRST TWO COLLECTED BY UNKNOWN PERSONS, 3RD BY H.W. CAMPBELL.

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
LITHCAPI*213	<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N	2012-03-14	Silver Springs State Park. According to topographic map, the 2012-03-14 observation (U13SMI01FLUS) is just above Silver River floodplain on north side of river, ca. 500 m southwest of intersection of CR-36 with SR-40, and roughly midway between the river and SR-40.	2012-03-14: Daniel Smith and colleagues captured small adult at drift fence (U13SMI01FLUS, PNDSMI15FLUS).
MATEFLOR*6	<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E	1963-05-22	Semi-sunny, flat, upland, cutover forest of Quercus, Fraxinus, Carya, Magnolia grandifolia, and Serenoa. Soil pH = 5.1 in upper 25 cm.	About 10 plants here, most near the small sand road, Flower petals maroon.
MUSTOLIV*10	<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N	1970-01-03	No general description given	MUSEUM SPECIMENS: SM #08707, COLLECTED BY W. MCCORMICK, 1970-01-03; SM NO #, COLLECTED BY R. ALLEN, 1946-12-17; SM NO # COLLECTED BY D. BOYER, 1946; SM #00828 COLLECTED BY R. ALLEN, 1941.
MUSTPENI*31	<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N	1970-01-03	No general description given	1970-01-03: W. McCormick - Skeleton. Fla. Mus. Nat. Hist. No. 8707.
PITUMELA*107	<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST	1976-02	No general description given	SPECIMEN COLLECTED FEB 1976 BY SMITH (BCS-1858, UF-36906).
PITUMELA*108	<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST	1975-04-15	No general description given	MUSEUM SPECIMENS: DOR COLLECTED 15 APRIL 1975 BY HOLLER (BSC-722, UF-36901); SPECIMEN "FLOWED UP", COLLECTED 16 JUNE 1950 BY L. EDMUNSON.
PITUMELA*112	<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST	1983-08-16	No general description given	SPECIMEN COLLECTED 16 AUG 1983 BY P. PRITCHARD.
PSEUSUWA*47	<i>Pseudemys concinna suwanniensis</i>	Suwannee Cooter	G5T3	S3	N	N	2004-04-07	Silver River, a large spring-run stream flowing to the Ocklawaha River in the St. Johns River system.	2004-04-07: ca. 20 observed basking during rare animal survey.

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SANDHILL*83	Sandhill		G3	S2	N	N	2004	MATURE STANDS OF GOOD QUALITY SANDHILL DOMINATED BY MATURE TURKEY OAKS (QUERCUS LAEVIS), LONGLEAF PINE (PINUS PALUSTRIS), AND SOME SOUTHERN POST OAK (Q. MARGARETTA) AND BLUEJACK OAKS (Q. INCANA); PINES ARE MOSTLY YOUNG TO MODERATE AGE. MOST AREAS SHOW GOOD DIVERSITY OF HERBS, INCLUDING THE DOMINANT WIREGRASS (ARISTIDA STRICTA), GOLDEN ASTER (PITIOPSIS GRAMINIFOLIA), CHALKY BLUESTEM (SCHIZACHYRIUM STOLONIFERUM), AND BLUE LUPINE (LUPINUS DIFFUSUS). SOME PORTIONS UNBURNED AND SHOWING ENCROACHMENT BY SAND PINE (P. CLAUSA) AND SAW PALMETTO (SERENOA REPENS). SOME AREAS IN THE SOUTHERN PORTION HAVE BEEN LOGGED OF PINES AND HAVE BEEN SINCE USED AS TRASH DUMPS. ON CANDLER SOILS (TYPIC QUARTZIPSAMMENTS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-24) (U05FNA02FLUS). MODERATE SIZED TRACT OF SANDHILL JUST SOUTH OF SILVER SPRINGS.
SANDHILL*88	Sandhill		G3	S2	N	N	2004	AREA DOMINATED BY TURKEY OAKS AND LONGLEAF PINE, OF VARIOUS AGES, SOME FAIRLY OLD. VERY GOOD COVER OF WIREGRASS. ON CANDLER SOILS (TYPIC QUARTZIPSAMMENTS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-23) (U05FNA02FLUS). GOOD-QUALITY SANDHILL THAT HAS BEEN FIRE-MAINTAINED.

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SANDHILL*89	Sandhill		G3	S2	N	N	2004	LARGE AREA OF ONLY FAIR QUALITY (C-RANK) SANDHILL COMMUNITY WITH NUMEROUS TRAILS AND ROADWAYS CUT THROUGH, MOSTLY CLEARED SANDHILL AREAS TO THE NORTH AND RESIDENTIAL AREAS TO THE SOUTH. THE SANDHILLS ARE DOMINATED BY LONGLEAF PINE (PINUS PALUSTRIS), TURKEY OAK (QUERCUS LAEVIS), AND LIVE OAK (Q. VIRGINIANA), WITH SOME AREAS OF LAUREL OAK (Q. LAURIFOLIA) ENCROACHMENT DUE TO LACK OF FIRES. GROUND COVER IS MOSTLY SPARSE, WITH WIREGRASS (ARISTIDA STRICTA) DOMINANT IN WIDELY SCATTERED CLUMPS. MANY OPEN AREAS OF BARE SAND. OTHER HERBS ARE TYPICAL FOR SANDHILLS. ON CANDLER SOILS (TYPIC QUARTZIPSAMMENTS).	2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-03-24) (U05FNA02FLUS).
SCIUNIGE*10	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	1984	UPLAND XERIC WOODLANDS (SANDHILLS & XERIC HAMMOCK) PARTLY TO MOSTLY DISTURBED OR CLEARED, ADJACENT TO FRESHWATER PRAIRIES.	SAID TO BE COMMON ON SITE IN WOODLANDS (SANDHILLS).
SCIUNIGE*190	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	2013-02-27	2007-03-21: sandhills in good condition, but in need of more frequent fire to reduce midstory (PNDKIN02FLUS). 2004-05-19: sandhill (PNDMUL02FLUS).	2013-02-27: 2 counted; foraging; quick survey (F13FNA01FLUS). 2007-03-21: one individual seen in sandhills (PNDKIN02FLUS). 1997-04-24: one observation made (PNDMUL02FLUS). 1994: Observations of <i>Sciurus niger shermani</i> made on two occasions in 1994 (PNDMUL02FLUS).
SCIUNIGE*21	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	1986-10-28	SUBURBAN	INDIV. HIT BY CAR AND SPECIMEN COLLECTED (UF/FSM, UNCATALOGUED) BY JOE DUDLEY, 28 OCT. 1986.

FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
SCIUNIGE*75	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	1993-03-23	HEDGEROW OF SLASH PINES; SOME MATURE LONGLEAF PINES SCATTERED AROUND AREA. SURROUNDED BY PASTURE LAND AND RESIDENCES. FRINGE OF SANDHILL (EO #88) WITH CLEARED GROUND COVER AND USED FOR CATTLE GRAZING.	ONE INDIVIDUAL OBSERVED NEAR SLIGHT JOG IN RD. OF NE 41 CT; ANOTHER INDIVIDUAL OBSERVED ABOUT 0.6 MILE NORTH OF SR 35 AND NE 90 ST. RD. JUNCTION.
SELOFLOR*10	<i>Sekonodon floridensis</i>	Florida Cebionid Beetle	G2G4	S2S4	N	N	1962-06-13	1962-06-13: No description given (B99GAL01FLUS).	1962-06-13: One specimen was collected (B99GAL01FLUS).
SPRISTRE*56	Spring-run stream		G2	S2	N	N	2007-03-21	37 MILES.	2007-03-21: water quality has degraded, recreational use is high and increasing, there are ongoing pollution inputs from Halfmile Creek, which drains city and road stormwater (PNDLAM04FLUS). 2002: nitrates in 1953 = 0.463 mg/liter, in 2000=0.81 mg/liter (G02DRP02FLUS). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1993-05-21) (U05FNA02FLUS).
STYLABD*60	<i>Stylisma abdita</i>	scrub stylisma	G3	S3	N	E	2016-06-29	High quality sandhill burned in past 6 months. Canopy of mature to older mature Pinus palustris. Sparse subcanopy of Pinus palustris, Quercus laevis, and Quercus geminata. Open shrub layer is dominated by Quercus laevis, Licania michauxii, Diospyros virginiana, and Serenoa repens. Diverse groundcover includes Aristida stricta, Aristida purpurascens, Andropogon gyrans, Andropogon temarius, Stylisma patens, Pityopsis graminifolia, Croton argyranthemus, Chrysopsis mariana, Carphophorus corymbosus, Rhynchospira megalocarpa, Liatris sp., and Dichanthelium sp.	Plants infrequent in areas of exposed sand, sterile, prostrate stems to 15 cm long.



FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
UPLAFOR*166	Upland hardwood forest		G5	S3	N	N	2007-03-21	2007-03-21: northern portion DRP mapped as wet flatwoods, grading into upland hardwood forest south to river. Closer to river could be classified as hydric hammock (PNDKIN02FLUS). [Transcribed on 1982-09-18]: LOBLOLLY PINE FOREST W/ GRASSY TO SHRUBBY UNDERSTORY. ON " GUMBO" SOIL, PHOSPHATIC CLAY W/ SHELL. OLD GROWTH. MGT. INCLUDES BURNING HARDWOOD FOREST. SELECTIVELY CUT, BUT STILL HAS 40" DBH SWAMP CHESTNUT OAK & 41" DBH SHUMARD OAK (UNDMAR01FLUS).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Upland mixed forest EO number 3 (see U10FNA01FLUS for updated community descriptions). 2007-03-21: Loblolly pines also prevalent, some areas of pine bark beetle damage/logging (PNDKIN02FLUS). 2004-05-06: Confirmed as upland mixed forest with mixed hardwoods, Sabal palmetto, and Spigelia loganioides (F04HER01FLUS). [Transcribed on 1982-09-18]: MAJOR CANOPY SPP: SWAMP CHESTNUT OAK, HACKBERRY, SWEETGUM, SHUMARD OAK, WINGED ELM, LAUREL OAK, WHITE ASH, CABBAGE PALM, PIGNOT HICKORY, MAGNOLIA, UNDERSTORY INCLUDES HORNBEAM, BLUE PALMETTO, & GRASS CHASMANTHIUM SESSILIFLORUM (UNDMAR01FLUS).



FNAI ELEMENT OCCURRENCE REPORT on or near
Indian Lake State Forest



Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
URSUFLO95	<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N	2016	Large area of pine plantation, mesic and wet flatwoods, and dome and basin swamps; Largely private commercial timberland, nurseries, and small neighborhoods; public lands are dominated by pine plantation but also have flatwoods interspersed with dome swamps and patches of scrub; Large area of sand pine and oak scrub, mesic flatwoods, sandhill, depression marshes and hardwood swamps, pine plantation; regular harvesting of sand pine (U05SIM01FLUS).	2002: 1,025-1,539 bears estimated in the primary ranges in the Ocala-St. John's region. Part of a larger population that includes Okefenokee Swamp National Wildlife Refuge in Georgia (U05SIM01FLUS). 2014: 1,198 bears estimated in the Ocala-St. John's region and 495 estimated in the Osceola region (A16HUM01FLUS). 2016: polygons created to show where bears are considered 'Abundant' and 'Common' (U16FWC01FLUS) Primary is the FWC-designated core area that represents breeding range and contains documented evidence of reproduction or female bears within available habitat, and Secondary is the FWC-designated area where bears occur within available habitat but outside primary bear range (evidence of bears without documented evidence of reproduction) (U12FWC02FLUS, U05SIM01FLUS). These boundaries are based on decades of bear observations, roadkill distribution, nuisance bear locations, and bear research projects. For detailed location data contact the FWC.

Florida Natural Areas Inventory
Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 31586					
Likely					
Sandhill		G3	S2	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i>	Curtiss' spleenwort	GNA	S1	N	N
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pycnanthemum floridanum</i>	Florida mountain-mint	G3	S3	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Selonodon floridensis</i>	Florida Cebionid Beetle	G2G4	S2S4	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 31587					
Likely					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Upland hardwood forest		G5	S3	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i>	Curtiss' spleenwort	GNA	S1	N	N

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<i>Asplenium x heteroresiliens</i>	Morzenti's spleenwort	G2	S1	N	N
<i>Asplenium x plenum</i>	ruffled spleenwort	G1Q	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Calopogon multiflorus</i>	many-flowered grass-pink	G2G3	S2S3	N	T
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	scrub buckwheat	G4T3	S3	T	E
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Mondropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Nolina atopocarpa</i>	Florida beargrass	G3	S3	N	T
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Pycnanthemum floridanum</i>	Florida mountain-mint	G3	S3	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 31887

Documented

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
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Likely

Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x heteroresiliens</i>	Morzenti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT

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<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 31888					
Documented					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Likely					
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i>	Curtiss' spleenwort	GNA	S1	N	N
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N

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<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 31889					
Documented					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Sandhill		G3	S2	N	N
Likely					
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i>	Curtiss' spleenwort	GNA	S1	N	N
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E

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<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 31890

Likely

<i>Crangonyx grandimanus</i>	Florida Cave Amphipod	G2G3	S2S3	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x curtissii</i>	Curtiss' spleenwort	GNA	S1	N	N
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Peromyscus floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Pycnanthemum floridanum</i>	Florida mountain-mint	G3	S3	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32196

Likely

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N

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<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 32197					
Documented					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Stylisma abdita</i>	scrub stylisma	G3	S3	N	E
Likely					
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST

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<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 32198					
Documented					
<i>Stylisma abdita</i>	scrub stylisma	G3	S3	N	E
Likely					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E

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Florida Natural Areas Inventory
Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecristata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 32199					
Documented					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Likely					
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecristata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N

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Florida Natural Areas Inventory
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<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32200

Documented

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N

Likely

<i>Crangonyx grandimanus</i>	Florida Cave Amphipod	G2G3	S2S3	N	N
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Peromyscus floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32517

Likely

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
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Florida Natural Areas Inventory
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Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Calopogon multiflorus</i>	many-flowered grass-pink	G2G3	S2S3	N	T
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S1	N	N
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Illicium parviflorum</i>	star anise	G2	S2	N	E
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteronotropis welaka</i>	Bluenose Shiner	G3G4	S3S4	N	ST
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32518

Documented-Historic

<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
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Likely

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

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Florida Natural Areas Inventory
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Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulae</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Peromyscus floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteronotopis welaka</i>	Bluenose Shiner	G3G4	S3S4	N	ST
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 32519					
Likely					
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Upland hardwood forest		G5	S3	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST

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<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S1	N	N
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E, PT	FE
<i>Falco sparverius paulus</i>	Southeastern American Kestrel	G5T4	S3	N	ST
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32520

Likely

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
Sandhill upland lake		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle	G2	S2	E	FE
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E, PT	FE

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Florida Natural Areas Inventory
Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	scrub buckwheat	G4T3	S3	T	E
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32521

Likely

Basin marsh		G4	S3	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	scrub buckwheat	G4T3	S3	T	E
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E

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Florida Natural Areas Inventory
Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

Matrix Unit ID: 32841

Likely

<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Potential

<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzeiti's spleenwort	G2	S1	N	N
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E, PT	FE
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	scrub buckwheat	G4T3	S3	T	E
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Monotropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Podomys floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E

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<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E
Matrix Unit ID: 32842					
Likely					
Basin marsh		G4	S3	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
Mesic flatwoods		G4	S4	N	N
Sandhill		G3	S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
Potential					
<i>Agrimonia incisa</i>	incised groove-bur	G3	S2	N	T
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Ambystoma tigrinum</i>	Eastern Tiger Salamander	G5	S3	N	N
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Arnoglossum diversifolium</i>	variable-leaved Indian-plantain	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort	G2	S1	N	N
<i>Carex chapmannii</i>	Chapman's sedge	G3	S3	N	T
<i>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Digitaria floridana</i>	Florida fingergrass	G1	S1	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST
<i>Eriogonum longifolium</i> var. <i>gnaphalifolium</i>	scrub buckwheat	G4T3	S3	T	E
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Illicium parviflorum</i>	star anise	G2	S2	N	E
<i>Lampropeltis extenuata</i>	Short-tailed Snake	G3	S3	N	ST
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Mondropsis reynoldsiae</i>	pygmy pipes	G2	S2	N	E
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat	G2	S2	N	N
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Orbexilum virgatum</i>	pineland scurfpea	G1	S1	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Peromyscus floridanus</i>	Florida Mouse	G3	S3	N	N
<i>Salix floridana</i>	Florida willow	G2	S2	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sideroxylon alachuense</i>	silver buckthorn	G1	S1	N	E
<i>Spigelia loganioides</i>	pinkroot	G2Q	S2	N	E
<i>Warea amplexifolia</i>	clasping warea	G1	S1	E	E

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

Elements and Element Occurrences

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

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

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

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

FNAI STATE ELEMENT RANK

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

FEDERAL LEGAL STATUS

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

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

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

E = Endangered: species in danger of extinction throughout all or a significant portion of its range.

E, T = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

E, PDL = Species currently listed endangered but has been proposed for delisting.

E, PT = Species currently listed endangered but has been proposed for listing as threatened.

E, XN = Species currently listed endangered but tracked population is a non-essential experimental population.

T = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

PE = Species proposed for listing as endangered

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

PT = Species proposed for listing as threatened

SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

SC = Not currently listed, but considered a "species of concern" to USFWS.

STATE LEGAL STATUS

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

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

C = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

FXN = Federal listed as an experimental population in Florida

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

ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at a rapid rate and as a consequence is destined or very likely to become an endangered species within the foreseeable future.

SSC = Listed as Species of Special Concern by the FFWCC. Defined as a population which warrants special protection, recognition, or consideration because it has an inherent significant vulnerability to habitat modification, environmental alteration, human disturbance, or substantial human exploitation which, in the foreseeable future, may result in its becoming a threatened species. (SSC* for *Pandion haliaetus* (Osprey) indicates that this status applies in Monroe county only.)

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

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

E = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or threatened pursuant to the U.S. Endangered Species Act.

T = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.

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

Element Occurrence Ranking

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

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

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

FNAI also uses the following EO ranks:

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

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

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

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

Exhibit M

Florida Fish and Wildlife Conservation Commission Listed Species Occurrence Records



**Florida Fish
and Wildlife
Conservation
Commission**

Commissioners
Rodney Barreto
Chairman
Coral Gables

Michael W. Sole
Vice Chairman
Tequesta

Steven Hudson
Fort Lauderdale

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Oxford

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Thomas H. Eason, Ph.D.
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

Fish and Wildlife
Research Institute
Gil McRee
Director

727-896-8626
727-823-0166 FAX

*Managing fish and wildlife
resources for their long-term
well-being and the benefit
of people.*

**Fish and Wildlife
Research Institute**
100 Eighth Avenue SE
St. Petersburg, Florida
33701-5020
Voice: (727) 896-8626
Fax: (727) 823-0166
Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)
MyFWC.com/Research

March 9, 2021

Patti Anderson
Land Management Planner
Florida Forest Services

Dear Patti:

This letter is in response to your request for listed species occurrence records and critical habitats for the Indian Lake State Forest, located in Marion County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data and critical habitats are located within the project area. Records of Florida black bear and Indigo snake were found on, or within a 1-mile distance of, the property. SHCAs were found for Florida mouse, Cooper's hawk, Florida black bear, Swallow-tail kite and Striped newt within a 1-mile distance of, the property. Enclosed are 8.5 x 11 maps prioritized SHCA's, species richness, priority wetlands for listed species, species locations and land cover for the project site and surrounding area. A list of species occurrences provided by FNAI are enclosed at the end of this document.

This letter and attachments should not be considered as a review or an assessment of the impact upon threatened or endangered species of the project site. It provides FWC's most current data regarding the location of listed species and their associated habitats.

Our SHCA recommendations are intended to be used as a guide. Land development and ownership in Florida is ever-changing and priority areas identified as SHCA might already have been significantly altered due to development or acquired into public ownership. Onsite surveys, literature reviews, and coordination with FWC biologists remain essential steps in documenting the presence or absence of rare and imperiled species and habitats within the project area.

Our fish and wildlife location data represents only those occurrences recorded by FWC staff and other affiliated researchers. It is important to understand that our database does not necessarily contain records of all listed species that may occur in a given area. Also, data on certain species, such as gopher tortoises, are not entered into our database on a site-specific basis.

Therefore, one should not assume that an absence of occurrences in our database indicates that species of significance do not occur in the area.

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area.

Name of Addressee
Page 2
Date

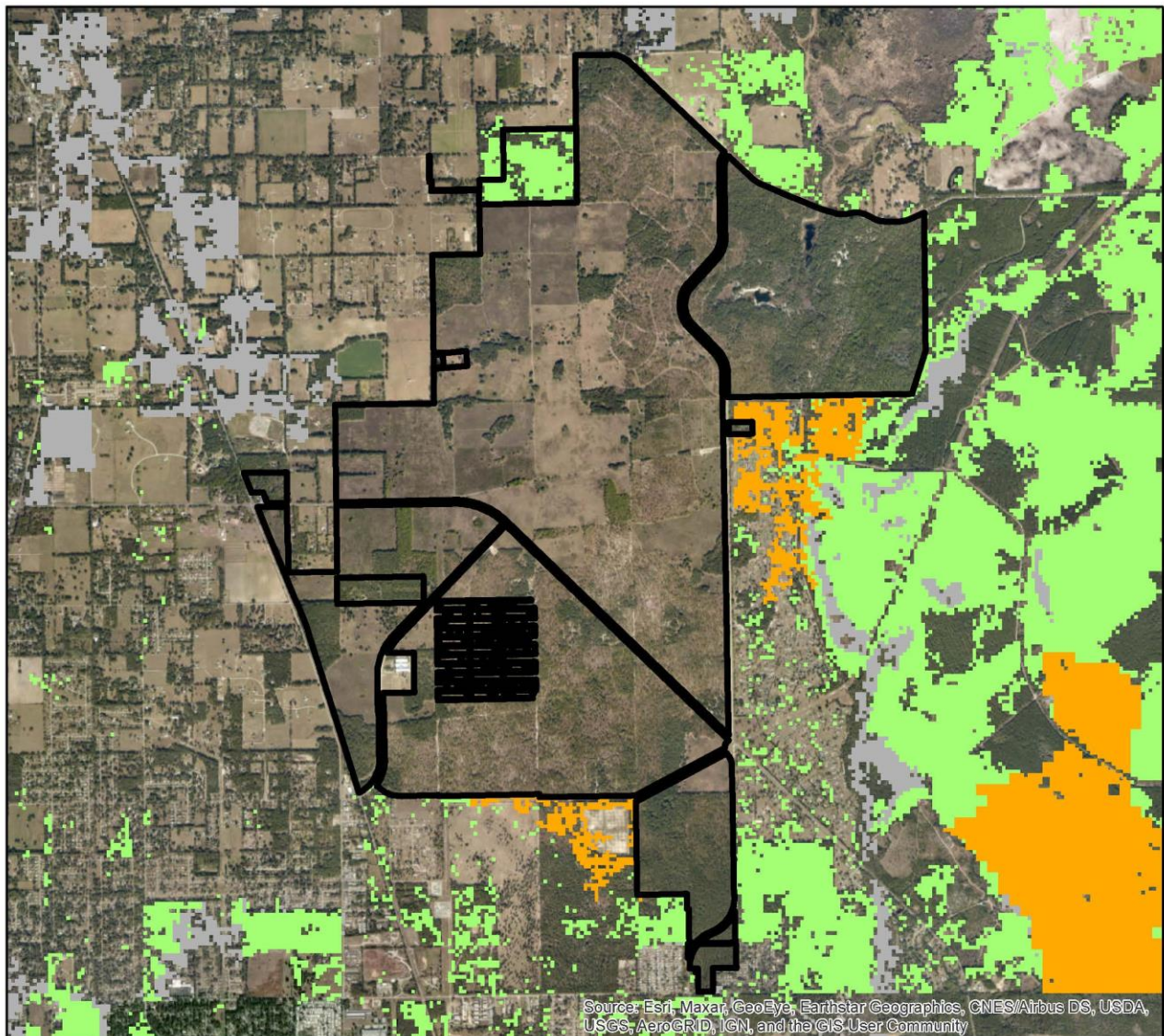
Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (<http://www.fnai.org>). FNAI species and communities located in the Indian Lake State Forest include Gopher tortoise, Pine snake, Southern fox squirrel, sandhill communities as well as scrub stylisma.

Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at (850) 488-0588 or gisrequests@myfwc.com.

Sincerely,

Steven Nicholl

Environmental Specialist I/GIS Technician
Center for Spatial Analysis
Florida Fish and Wildlife Conservation Commission
Fish and Wildlife Research Institute
100 8th Avenue S.E.
St. Petersburg, FL 33701



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Prioritized SHCA's



 Indian Lake State Forest Boundary



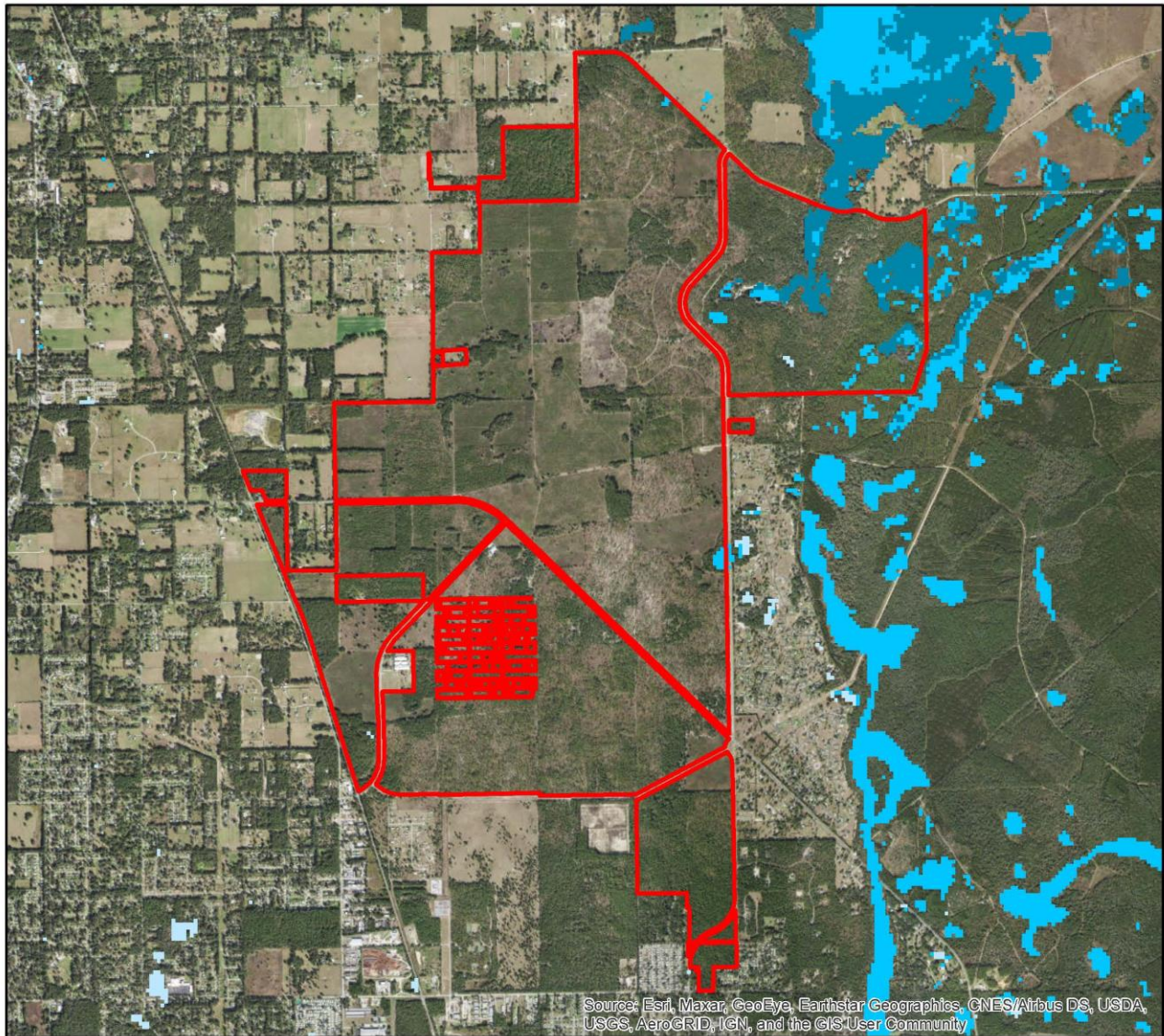
Indian Lake State Forest

The prioritized SHCA map identifies 5 classes of SHCA based upon Heritage ranking criteria developed by The Nature Conservancy, the Natural Heritage Program Network, and the Florida Natural Areas Inventory. There are 2 possible ranks used to prioritize a species' SHCA: 1) the global rank based on a species worldwide status, and 2) the state rank based upon the species status in Florida. The state and global ranks are based upon many factors such as known occurrence locations, estimated abundance, range, amount of habitat currently protected, perceived levels of threats towards the species, and ecological fragility.



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FWC ID: 2021_6486 March 8, 2021



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Priority Wetlands

- 1-3 Species, Wetlands habitat
- 4-6 Species, Wetlands habitat
- 7-9 Species, Wetlands habitat
- 10-11 Species, Wetlands habitat



State Forest site boundary



Indian Lake State Forest

This raster dataset identifies Florida wetlands important to wetland-dependent vertebrates listed by the State of Florida as endangered, threatened, or species of special concern. The dataset also ranks the relative importance of wetland areas based on species richness of the selected vertebrate species.

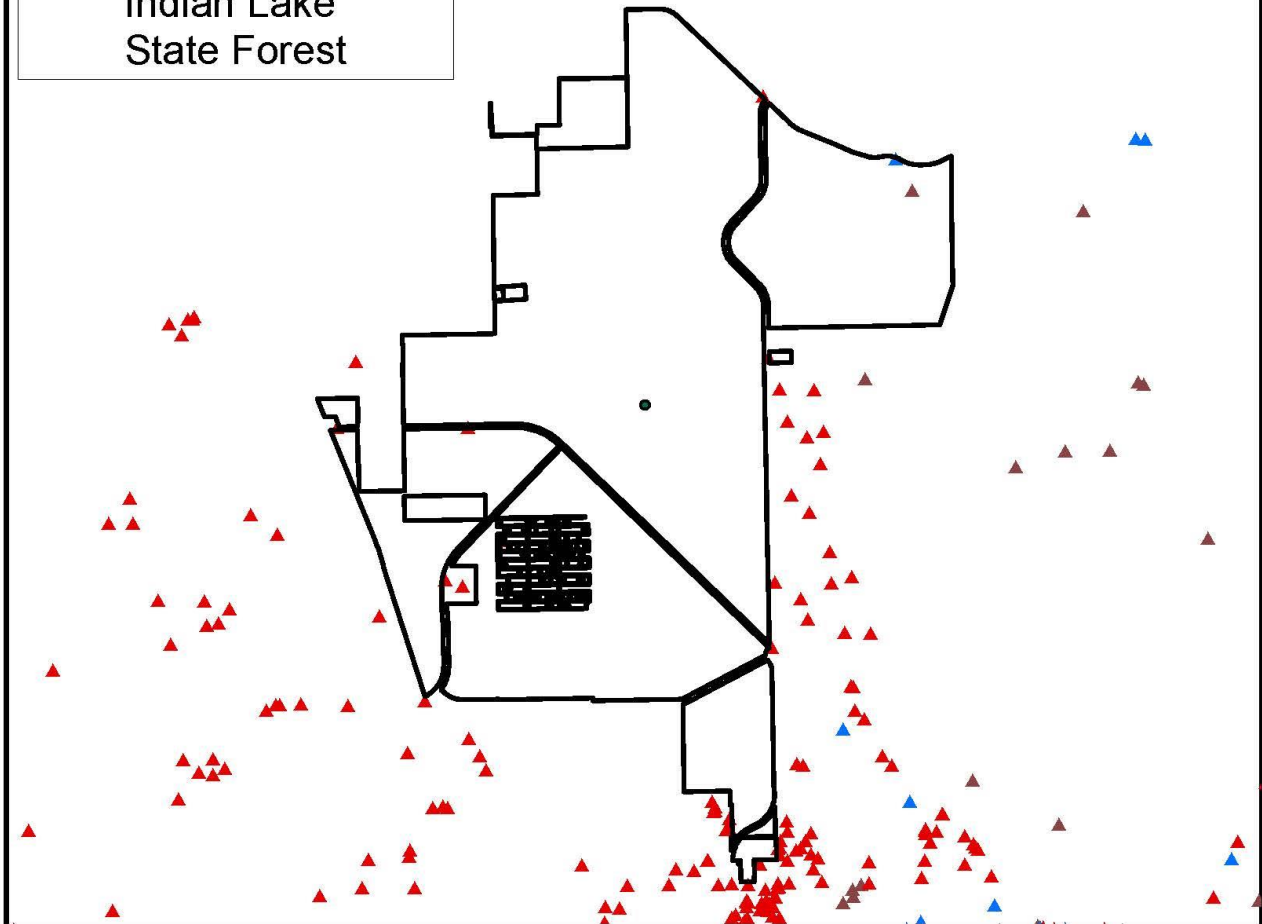


Florida Fish and Wildlife
Conservation Commission
MyFWC.com

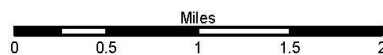


FWC ID: 2021_6532 December 21, 2021

Indian Lake State Forest

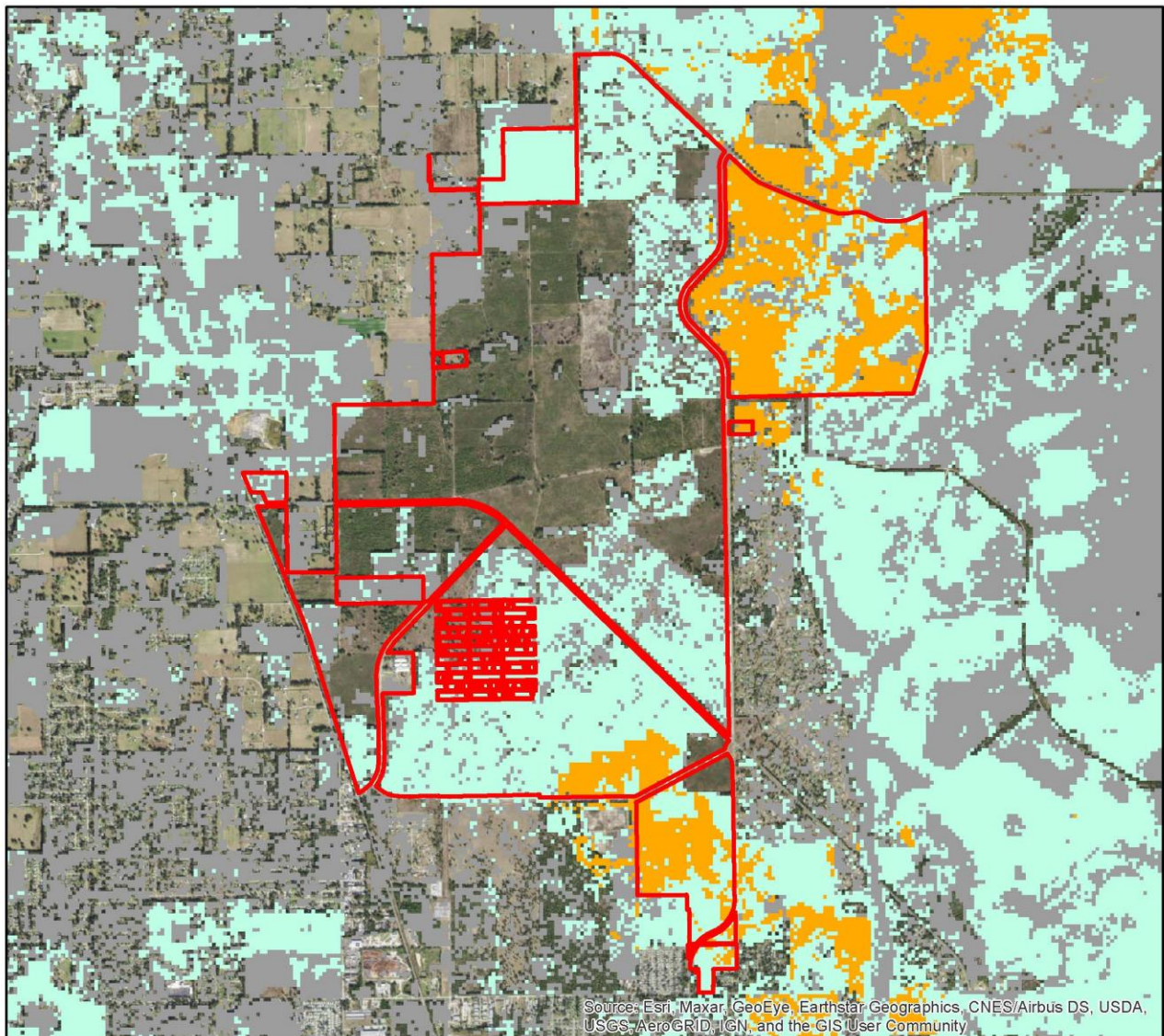


- | | |
|---------------------------|---------------------------------|
| * Rare and Imperiled Fish | ● Red Cockaded Woodpecker |
| * Bog Frog | ● Scrub-jay |
| * Pine Barrens Treefrog | ● Snail Kite |
| ★ Flatwoods Salamander | ● Shorebirds |
| ★ Sand Skink | ● Wading Bird Rookeries 1999 |
| ★ Striped Newt | ■ Caracara Nests |
| ● Indigo Snake | ■ Eagles Nests |
| ● Burrowing Owl | ■ Florida Wood Stork Nests -FWC |
| ● Painted Buntings 08-10 | ■ Shore Birds Nests 2002 |
| ▲ Bear Calls | ◆ Panther Locations |
| ▲ Bear Roadkill | ◆ Panther Mortality |
| ▲ Black Bear Telemetry | ✚ Wildlife Observations |
| ▲ Bear Captures | ■ Snowy Plover Nests 2002-2006 |



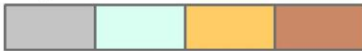
Florida Fish and Wildlife
Conservation Commission
MyFWC.com

FWC ID: 2021_6486 March 9, 2021



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Species Richness



1-3
4-6
7-9
10-13



State Forest site boundary



Indian Lake State Forest

This dataset represents the richness of potential habitat for selected focal species in Florida. Potential habitat includes areas that have been occupied by the species and areas where occupancy is unknown based on available occurrence records. We combined the potential habitats generated for Florida into a single grid layer indicating diversity. Pixel cell value indicates the total number of species potential habitat identified at the specific location.



Florida Fish and Wildlife
Conservation Commission
MyFWC.com



FWC ID: 2021_6532 December 21, 2021

Exhibit N

ILSF Fire History

Indian Lake State Forest Burn Acres by Fiscal Year

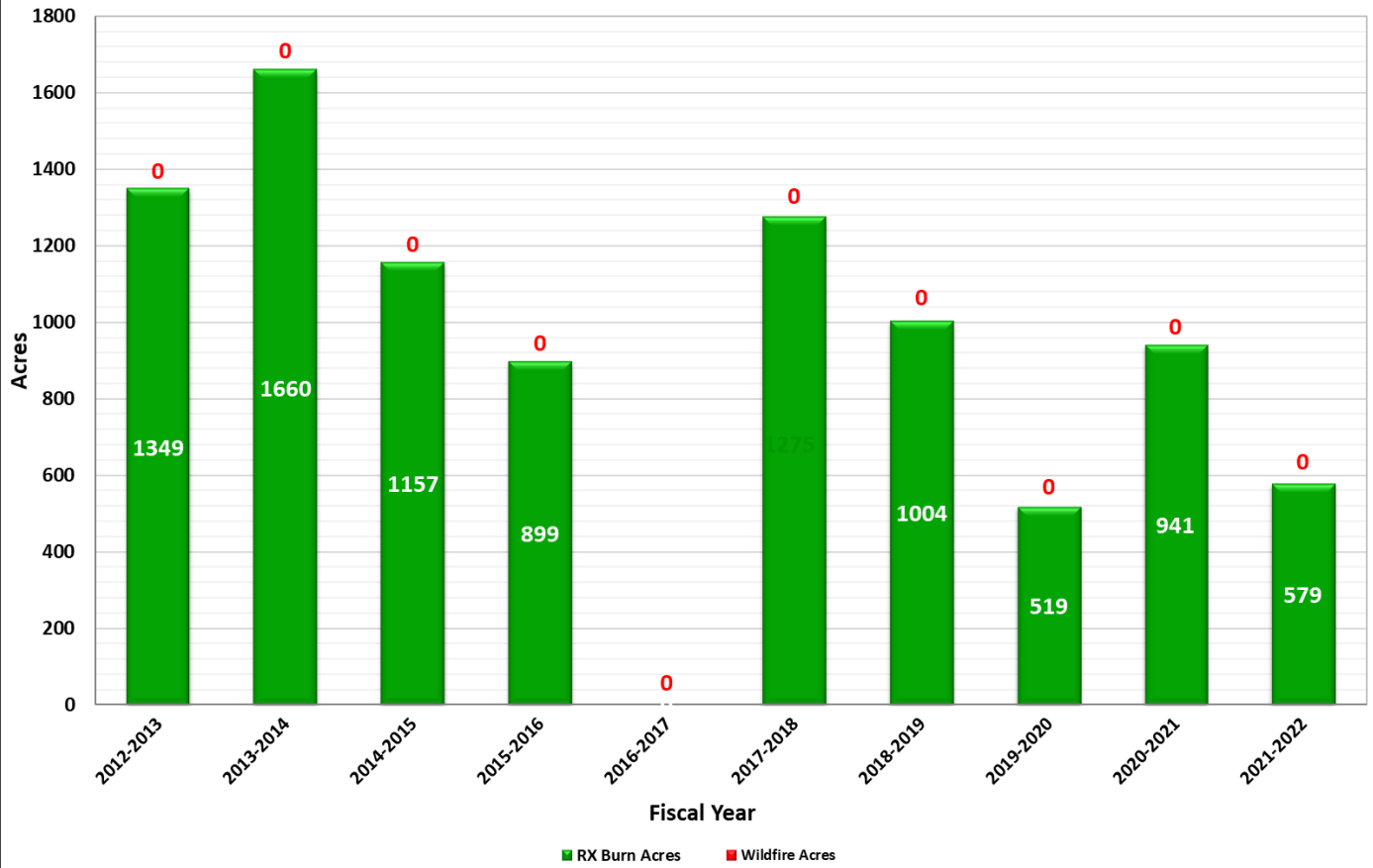


Exhibit O

Non-Native Invasive Species Map



Florida Forest Service

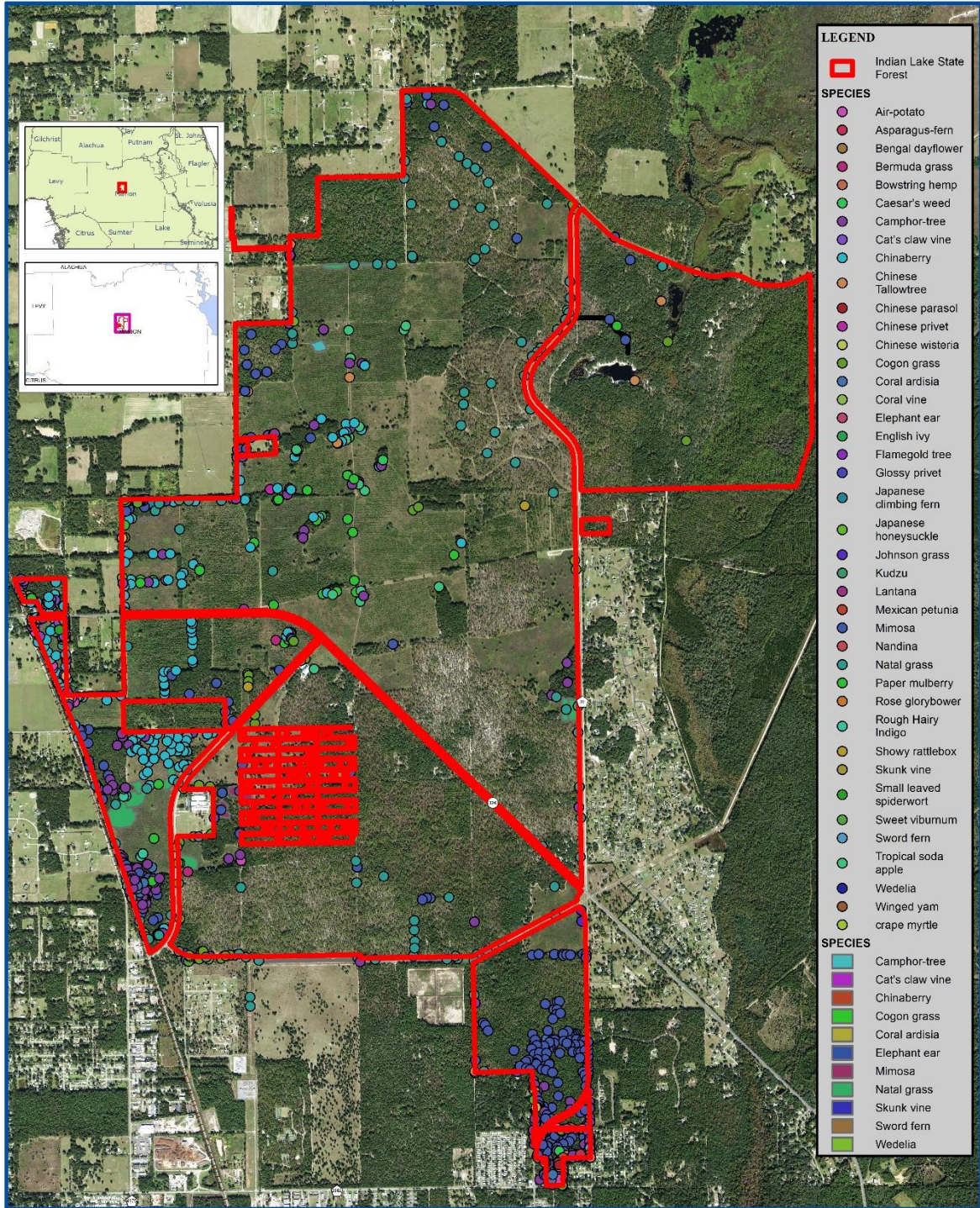
Indian Lake State Forest

Non-Native Invasive Species Map

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
This map was prepared by the Florida Forest Service, and is intended to provide a general overview of the distribution of non-native invasive species in the Indian Lake State Forest. It is not intended to be used as a legal document, and should not be relied upon for any legal or financial purposes. The Florida Forest Service is not responsible for any errors or omissions in this map, and is not liable for any damages resulting from its use.

Revised Area: November 2022
The Florida Forest Service is not responsible for any errors or omissions in this map, and is not liable for any damages resulting from its use.



LEGEND

Indian Lake State Forest

SPECIES

- Air-potato
- Asparagus-fern
- Bengal dayflower
- Bermuda grass
- Bowstring hemp
- Caesar's weed
- Camphor-tree
- Cat's claw vine
- Chinaberry
- Chinese Tallowtree
- Chinese parasol
- Chinese privet
- Chinese wisteria
- Cogon grass
- Coral ardisia
- Coral vine
- Elephant ear
- English ivy
- Flamegold tree
- Glossy privet
- Japanese climbing fern
- Japanese honeysuckle
- Johnson grass
- Kudzu
- Lantana
- Mexican petunia
- Mimosa
- Nandina
- Natal grass
- Paper mulberry
- Rose glorybower
- Rough Hairy Indigo
- Showy rattlebox
- Skunk vine
- Small leaved spiderwort
- Sweet viburnum
- Sword fern
- Tropical soda apple
- Wedelia
- Winged yam
- crape myrtle

SPECIES

- Camphor-tree
- Cat's claw vine
- Chinaberry
- Cogon grass
- Coral ardisia
- Elephant ear
- Mimosa
- Natal grass
- Skunk vine
- Sword fern
- Wedelia

0.5 0.25 0 Miles



Map Month/Year: November 2022

1,000 500 0 1,000 Feet

Exhibit P

Current Natural Communities Map



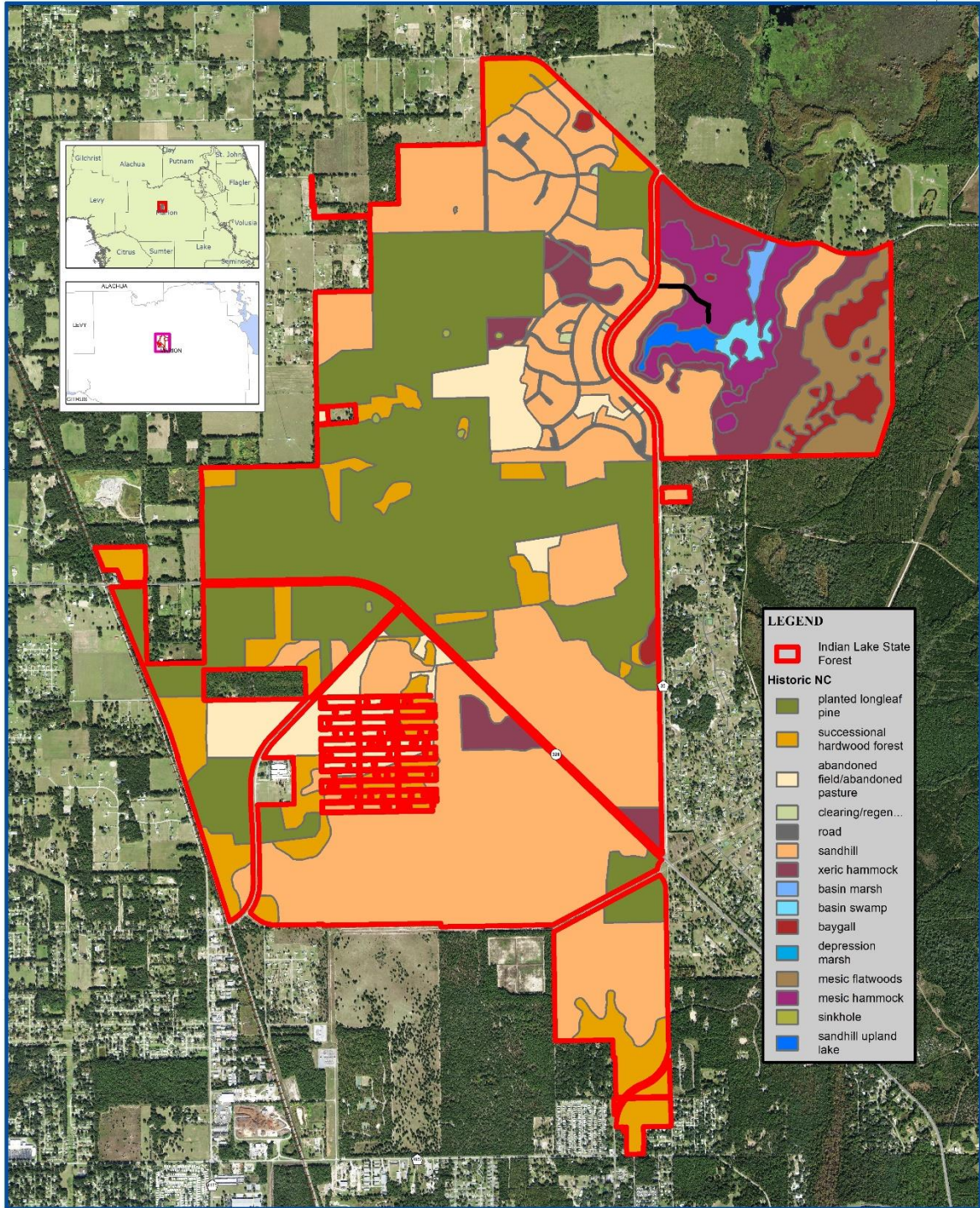
Florida Forest Service

Indian Lake State Forest

Current FNAI Natural Communities and Cover Type

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
This map was created as the Florida Forest Service's (FFS) best effort to provide accurate information. The FFS does not warrant the accuracy, completeness, or timeliness of the information provided. The FFS is not responsible for any errors or omissions, or for any consequences arising from the use of the information. The FFS is not responsible for any damages, including consequential damages, arising from the use of the information. The FFS is not responsible for any damages, including consequential damages, arising from the use of the information.



LEGEND

- Indian Lake State Forest
- Historic NC**
 - planted longleaf pine
 - successional hardwood forest
 - abandoned field/abandoned pasture
 - clearing/regen...
 - road
 - sandhill
 - xeric hammock
 - basin marsh
 - basin swamp
 - baygall
 - depression marsh
 - mesic flatwoods
 - mesic hammock
 - sinkhole
 - sandhill upland lake

Map Month/Year: April 2021

Exhibit Q

Historic Natural Communities Map



Florida Forest Service

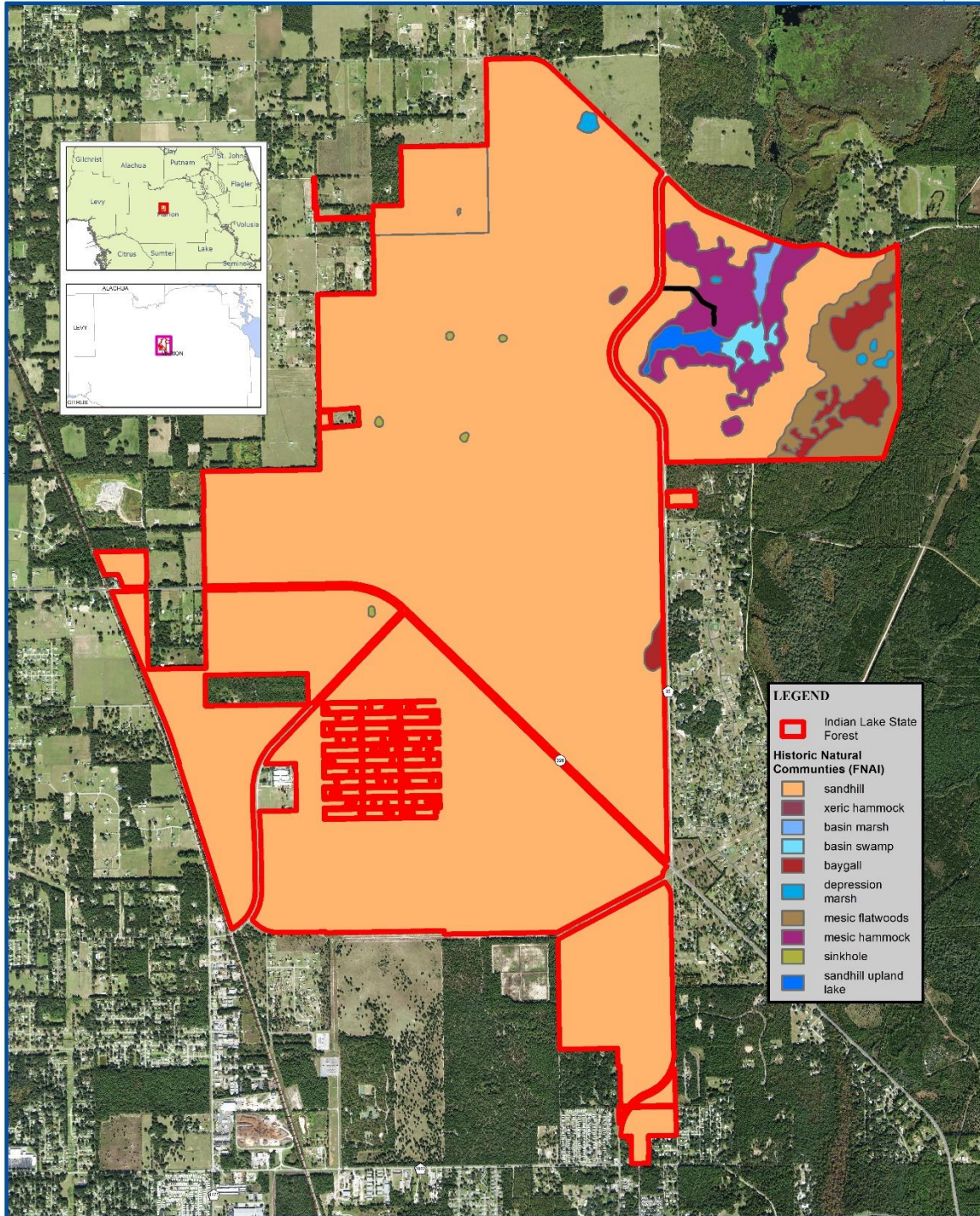
Indian Lake State Forest

Historic FNAI Natural Communities and Cover Type

Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
This map was created as the Florida Forest Service's best effort to represent the historic natural communities and cover types of Indian Lake State Forest. It is not intended to be used for legal purposes. The Florida Forest Service does not warrant the accuracy or completeness of the information presented on this map. The Florida Forest Service is not responsible for any errors or omissions, or for any consequences arising from the use of the information presented on this map. The Florida Forest Service is not responsible for any damages, including consequential damages, arising from the use of the information presented on this map.

Revised: June 2021
Original: June 2001
From the US Army Corps of Engineers



0.5 0.25 0 Miles



Map Month/Year: March 2021

1,000 500 0 1,000 Yards

Exhibit R

Management Prospectus

**Florida's First Magnitude Springs**

Bay, Citrus, Columbia, Gilchrist, Hamilton, Hernando, Jackson, Lafayette, Lake, Leon, Levy, Madison, Marion, Suwannee, Wakulla, Walton, Washington

Partnerships and Regional Incentives

Project-at-a-Glance

<i>Placed on List</i>	<i>1991</i>
<i>Project Area</i>	<i>16,583</i>
<i>Acres Acquired</i>	<i>10,610</i>
<i>at a Cost of</i>	<i>\$106,192,527</i>
<i>Acres Remaining</i>	<i>5,972</i>

Purpose for State Acquisition

Large springs of clear, continuously flowing water are among Florida's most famous and important natural and recreational resources. The cavernous, water-filled rock of the Floridan Aquifer supplies the largest springs. By preserving land around springs, this project will aid in the protection of springs, karst windows, and the Floridan Aquifer from the effects of commercial, residential, and agricultural runoff, clearcutting and mining; and unsupervised recreation. This project will ensure that Floridians and visitors from all over the world will be able to enjoy Florida springs for years to come.

Manager(s)

Spring or Property	Managers
Morrison Springs	Walton County
Blue Springs Park	DRP
Brunson Landing and Cypress Spring	Leased from owner, managed by NFWFMD
Gainer Springs	DRP / NFWFMD
Jackson Blue Springs	Jackson County
River Sink Spring	US Forest Service
Church Sink	Leon County
St. Marks Springs	DRP
Hardee Spring	Florida Forest Service
Madison Blue Springs	DRP
Damascus Peanut Tract and Falmouth Spring	NFWFMD
Lafayette Blue Springs	Lafayette County
Troy Spring	DRP
Fanning Springs	DRP / OGT / NFWFMD
Silver Springs Sandhill	Marion County
Weeki Wachee Springs	FWC
Springs Coast Research	Wildlands Conservation
Home Spring	FFS

General Description

Because of the thick, water-filled limestone underlying it, Florida has more large springs (including river rises and karst windows) than any other state or even country. Those discharging an average of 100 cubic feet of water per second or more are called first-magnitude springs. The 33 recognized first magnitude springs in Florida are scattered in the northern peninsula and the eastern panhandle where the limestone of the Floridan Aquifer arches close to the surface. Each day, these 33 springs send out much more water than is used for drinking water by all the people in the state. The springs, with generally clear, continuously flowing waters, are among Florida's most important natural resources and some are famous tourist attractions. The tracts harbor at least seven FNAI-listed plants and eighteen FNAI-listed animals. The Weeki Wachee tract includes one of the best remaining scrubs on Florida's West Coast.

Several archaeological or historic sites are known from these springs, from remains over 2000 years old to an historic Sinclair gas station. All these springs are vulnerable to development and unsupervised use.

FNAI Element Occurrence Summary 2019

<u>FNAI Element</u>	<u>Score</u>
Reticulated Flatwoods Salamander	G2/S1
Manatee	G2/S2
Gopher Tortoise	G3/S3
Florida Mouse	G3/S3
Florida Black Bear	G5T4/S4
Suwannee Moccasinshell	G1/S1
Withlacoochee Tiny Sand-loving Scarab	G1/S1
Woodville Karst Cave Crayfish	G1/S1
<i>ciliate-leaf tickseed</i>	G1G2/S1
Jackson County Cave Amphipod	G1G2/S1
Gulf Moccasinshell	G2/S1
Coastal Lowland Cave Crayfish	G1G2/S1S2

71 rare species are associated with the project

Source: Florida Natural Areas Inventory (FNAI, January 2020)

Public Use

The project sites are designated for use as state parks, geological sites and wildlife and environmental areas, with high recreational potential for swimming, canoeing, camping, and nature appreciation.

Acquisition Planning

1990

On December 7, 1990, the Land Acquisition Advisory Council (LAAC) added the Florida's First Magnitude Springs – Phase I project to the CARL Priority list. This fee-simple acquisition, sponsored by the Department of Environmental Regulations, consisted of approximately 2,907 acres, 36 landowners,

136 parcels, and a taxable value (TAV) of \$5,718,493. In 1990, five springs made up the project: Falmouth Spring (Suwannee County, 75 acres, 1 parcel, 1 landowner, TAV \$45,000), Fanning Springs (Levy County, 525 acres, 98 parcels, 17 landowners, TAV \$1,187,610), Gainer Springs (Bay County, 1,258 acres, 19 parcels, 7 landowners, TAV \$3,256,739), River Sink Spring (Wakulla County, 105 acres, 4 parcels, 4 landowners, TAV \$64,956), and St. Marks Springs (Leon County, 890 acres, 19 parcels, 6 landowners, TAV \$1,164,188). According to the 1990 Project Design document, the DRP will manage St. Marks Springs. The US Forest Service will manage River Sink Spring. The OGT, DRP, and SRWMD will manage Fanning Springs. A lead manager has not been determined for Falmouth Springs. The lead manager is still unclear for Gainer Springs; however, the NFWFMD and Bay County both expressed an interest. A portion of the Fanning Springs sites have been acquired. The NFWFMD has acquired 214 acres of the Gainer Springs sites.

1991

On June 28, 1991, the LAAC approved a 218-acre addition to the Falmouth Springs site, located in Suwannee County, within the project boundary. It was sponsored by the landowner, Nemours Foundation, who already has acreage within the current boundary and is not willing to sell only a portion of the tract. The taxable value of the addition is \$129,600. SRWMD will manage if acquired.

1992

On December 10, 1992, the LAAC approved Phase II that added three springs, 1,880 acres with a taxable value of \$5,180,452. This addition consisted of Jackson Blue Springs (Jackson County, 348 acres, 3 parcels, 2 landowners, TAV \$256,556); Troy Spring (Lafayette County, 265 acres, 6 parcels, 2 landowners, TAV \$261,897); and Weeki Wachee Springs (Hernando County, 1,267 acres, 59 parcels, 24 landowners, TAV \$4,661,999). The FWC will manage the Weeki Wachee Springs sites. The DRP will manage the Troy Spring site. Jackson County will manage the Jackson Blue Springs sites. Portions of Troy Spring, Weeki Wachee Springs, and Jackson Blue Springs sites have been acquired. On December 10, 1992, the LAAC also approved a fee-simple, 1,635-acre addition (Gainer Springs Expansion) and combined it with the Gainer Springs site. The majority of the addition is owned by Hunt Petroleum/Rosewood Timber Co. and St. Joe Paper. There are also several small ownerships. The estimated taxable value is \$3,000,000. Phase I was combined with the new Florida's First Magnitude Springs Phase II. The springs are located in Bay and Washington counties. The NFWFMD will manage the 214-acre Harder tract that it acquired.

1995

On October 30, 1995, the LAAC approved a fee-simple, 20-acre addition (Jackson Blue Springs) to the project boundary in Jackson County. It was sponsored by the two landowners, Carolyn D. Huff and Wayne Mixon, located along Spring Run of Merritt's Mill Pond in Jackson County, and has a taxable value of \$258,790. Jackson County will manage. Both properties were acquired in 1997.



1998

On December 3, 1998, the Land Acquisition Management Advisory Council (LAMAC) transferred the St. Marks Springs, River Sink Spring, Fanning Springs, and Gainer Springs sites to the Negotiation Impasse group. On July 29, 1999, the LAMAC approved a fee-simple, 65-acre addition (Madison Blue Springs) in Madison County to the project, sponsored by the landowners' representative. It contains 45 parcels, 22 landowners, and a taxable value of \$604,000. The addition was designated essential and added to the Priority portion of the project. Madison County will manage it. Approximately 44 acres have been acquired.

2000

On August 22, 2000, the ARC approved a fee-simple, 40-acre addition (Cypress Spring) in Washington County to the project boundary. The addition was sponsored by Conservation Properties for the landowner, Harold Vickers, and had a taxable value of \$131,400. Mr. Vickers was willing to manage it if acquired; however, property was sold to a third party in 2002.

2003

On April 18, 2003, the ARC approved a fee-simple, 200-acre addition (Morrison Springs) in Walton County to the project boundary with a taxable value of \$63,880. The addition was sponsored by Conservation Properties, Inc. and Walton County will manage the site. Also, on April 18, 2003 ARC approved a fee-simple, 4,552-acre addition (Silver Springs Addition) north of Silver Springs in Marion County to the project boundary. The addition was sponsored by the Silver Springs Basin Working Group, consisted of one landowner, Avatar Properties Inc., and had a taxable value of \$3,406,945. The FFS will manage this if it is acquired.

On August 15, 2003, the ARC approved a fee-simple, 172-acre addition (Lafayette Blue Springs) in Lafayette County to the project boundary. The addition was sponsored by Conservation Properties, consisted of one landowner, Union Land and Timber Corp., 9 parcels, and a taxable value of \$97,000. Lafayette County will manage if acquired. On October 17, 2003, the ARC approved a fee-simple, 365-acre addition (Silver Springs Addition No. 2) in Marion County to the project boundary. The addition was sponsored by the Silver Springs Basin Working Group and the Marion County Audubon, Inc., consisted of one landowner, Seldin, 2 parcels, and a taxable value of \$2,889,223. Marion County will manage the site. In 2005, 330 acres were acquired.

On December 5, 2003, the ARC approved a fee-simple, 1,717-acre addition (Jackson Blue Springs) in Jackson County to the project boundary. The addition, sponsored by Conservation Properties, consisted of 11 parcels, 5 landowners (Edinburgh Investment Corp; AJ Green; Howard Muncaster Partnership; LH Alford Farms Inc.; Doyle Green), and a taxable value of \$303,367. Jackson County will manage it if acquired. On October 15, 2004, the ARC approved a fee-simple, 5-acre addition (Church Sink) in Leon



County to the project boundary. The addition was sponsored by the landowner, J. Lee Vause Trust, consisted of one parcel, and a taxable value of \$47,700. Leon County will manage if acquired.

2006

On October 13, 2006, ARC approved a fee-simple 305-acre addition (Hardee Spring) to the boundary in Hamilton County. The addition was sponsored by Harold Hardee and involved one parcel with a taxable value of \$57,001. The FFS would manage the site as part of the Twin Rivers State Forest if acquired. In July 2007, the BOT acquired 4,471 acres of the Avatar property in Marion County.

2009

On February 25, 2009, the BOT acquired 54.74 acres from the Rakestraw family in the St. Marks Site.

2010

On January 6, 2010, FFS purchased approximately 1 acre for \$16,065 from Kaiser/TNC in the Indian Lake State Forest. On May 11, 2010, FFS purchased 0.12 acres for \$2,550. FFS will manage both purchases. In July 2010, FFS purchased two parcels (0.23 for \$5,100 and 0.12 for \$2,800) and will manage both. On November 15, 2011, FFS purchased to manage .23 acres in Indian Lake State Forest (Potter-\$5,100).

In October 2010, FFS purchased 5 parcels (Silver Spring Addition--Bloom, Dinkins, Dupras, Hanson, Szymialis ownerships) making 1/2 acre for a combined \$10,200 and will manage all. In November 2010 FFS purchased 2 parcels (Silver Spring Addition--Stovall, Landry) or .29 acre for \$6,375 and will manage these.

2011

On May 2, 2011, FFS purchased and will manage .23 acre (Jean and Giselle Raymond-\$12,000). On August 3, 2011, the Felburn Foundation donated 2.42 acres in Silver Springs (valued at \$100,000) for FFS to manage. On 9/16/2011, DRP purchased to manage 55.73 acres (Gerrell Plantation, Inc.-\$457,000), as an addition to Natural Bridge Historic State Park.

On December 9, 2011, this project was placed in the Partnerships and Regional Incentives category of Florida Forever projects.

2013

On February 15, 2013 ARC changed the design of the Florida's First Magnitude Springs project in Madison County to add the 608-acre Damascus Peanut Tract, then found that conveying the tract to the Suwannee River Water Management District in exchange for the District's 670-acre Ellaville tract would make a greater conservation value and that the Damascus Peanut Tract was no longer needed for conservation by the Board of Trustees.



2014

In April 2014, ARC agreed to add the 360-acre Brunson Landing Tract on Holmes Creek, north of Vernon, to the project boundary to protect water resources from development. It provides over 2,200 feet of frontage along Homes Creek and is adjacent to NFWMD land. It would also be managed by the NFWMD if acquired.

2015

On June 19, 2015, ARC voted to add the 405-acre Blue Springs Park on the Santa Fe River in Gilchrist County to the Florida's First Magnitude Springs. The park has a just value of \$1,361,547 and has a second-magnitude spring and two smaller springs. Blue Springs was then added by ARC to the boundary of the existing Florida's First Magnitude Springs project. On April 20, 2012 the ARC added 63.4 acres to the project that had been authorized for sale from the US Forest Service.

The 470-acre Silver Springs Sandhill on the edge of Ocala was proposed for fee-simple acquisition, considered, and approved by ARC as a stand-alone project on June 19, 2015. It was then immediately added by ARC to the boundary of the existing Florida First Magnitude Springs project.

2017

On October 2, 2017, the state purchased 465 acres of the Sandhill tract to be managed by Marion County as part of the Coehadjoe Park.

On October 6, 2017, DEP closed on 399 acres of Blue Springs Park in Gilchrist County.

In October 2017, ARC approved the Springs Coast Research Station as a Florida Forever project. The project had an estimated tax value of \$643,154. This 28-acre parcel in southwest Citrus County is north of the town of Chassahowitzka. It shares northern and western boundaries with the Chassahowitzka River and Coastal Swamps (managed by SFWMD). The parcel is at the edge of Crab Creek, which is the site of Crab Spring, part of the Chassahowitzka first magnitude spring group. The facilities on the property have been well maintained, and the campus layout and functions of the residence and satellite buildings would make it suitable as a research center for springs systems and habitats. The project was proposed by Wildlands Conservation, a nonprofit conservation group based in Tampa, who would manage the property as a springs research campus in coordination with several educational institutions, as well as protecting the surrounding public lands and underwater acreage. In December 2017, ARC voted to add the 28-acre Springs Coast Research Station Florida Forever project boundary to that of the Florida's First Magnitude Springs project.

In calendar year 2017, a total of 863.45 acres in this project were acquired using Florida Forever program funding.



2018

On June 15, 2018 ARC members voted to add 556 acres in Columbia County to the project. This is the Santa Fe Springs Tract, on the north side of the Santa Fe River. The Florida Forest Service (FFS) will manage this site through the Florida Forest Service's Suwannee Forestry Center if acquired, however it may be managed as a standalone Forest property. The FFS estimates the budget needs for the one year of interim management to require a total of \$167,974 from the Land Acquisition Trust Fund (1 fulltime employee at \$44,439, Expenses of \$71,935, and Operating Capital Outlay of \$167,974).

Coordination

Hernando County has limited acquisition funds but is very supportive of state acquisition efforts. The NFWFMD has acquired the 214-acre Harder tract in Gainer Springs.

Management Policy Statement

The primary goals of management of the Florida's First Magnitude Springs project are to preserve land around springs, karst windows, and springs to aid in the protection of the Floridan Aquifer from the effects of commercial, residential, and agricultural runoff; clearcutting and mining; and unsupervised recreation.

Management Prospectus

Qualifications for state designation

Blue Spring has the diversity of resources and recreational opportunities to qualify as a state park. The location of the Weeki Wachee project adjacent to the Chassahowitzka Wildlife Management Area (WEA), as well as its sensitive natural resources, qualifies it as a WEA. River Sink spring is a first-magnitude karst window. This qualified it as a state geological site. St. Marks, Fanning, Troy, Falmouth, and Gainer Springs have the diversity of resources and recreational opportunities to qualify as a state park.

Manager

FWC (Weeki Wachee Springs excluding the springhead, which is part of the Chassahowitzka WMA; Jackson County (Jackson Blue Springs); U.S. Forest Service (River Sink Springs); DRP (St. Marks, Fanning, Troy, Gainer Springs, Madison County Blue Springs, and Blue Springs Park of Gilchrist County); Walton County (Morrison Springs); Leon County (Church Sink); Marion County (Silver Springs); FFS (Hardee Springs); OGT (Fanning Springs); NFWFMD (Gainer Springs); SRWMD (Fanning Springs, Falmouth Springs); Lafayette County (Lafayette Blue Springs), Marion County (Silver Springs Sandhills); and Florida Forest Service (Santa Fe Springs tract).

Conditions affecting intensity of management

River Sink and Blue Spring are moderate-need tracts, requiring more than basic resource management and protection. Gainer Springs is a high-need management area including public recreational use and development compatible with resource management. Florida Forest would manage the Santa Fe Spring parcel for Operation Outdoor Freedom Hunts.

Timetable for implementing management and provisions for security and protection of infrastructure

Jackson County Blue Spring is now being used by the public and Jackson County has no plans to curtail activities. The County would continue to open the swim area in season and maintain year-round access for boating, fishing, and nature appreciation. The smaller second spring may need restrictions to ensure public safety and preservation of the limestone bluffs. A lifeguard will be on duty while the swim area is open. Access will be controlled primarily by fences. River Sink would immediately fall under the National Forests in Florida's Land and Resource Management Plan (Forest Plan). Within the first few years after acquisition, management activities would focus on site security, resource inventory, removal of existing trash, and any necessary prescribed fire management. In the first year after Gainer Springs is acquired, the Division of Recreation and Parks will concentrate on site security, natural and cultural resource protection, and the development of a plan for long-term public use and resource management.

Revenue-generating potential

The Blue Springs swim area generated \$21,946 in revenue in fiscal year 1992-1993 and \$13,045 in fiscal year 1993-94. DRP expects Gainer Springs to generate no significant revenue initially. The amount of any revenue generated would depend on the nature and extent of public use and facilities. As facilities are developed, River Sink may become a national recreational fee area. Fees collected from use of this area would be activities of the Federal Government. It is estimated that the area will receive more than 5,000 visits annually once it is developed.

Cooperators in management activities

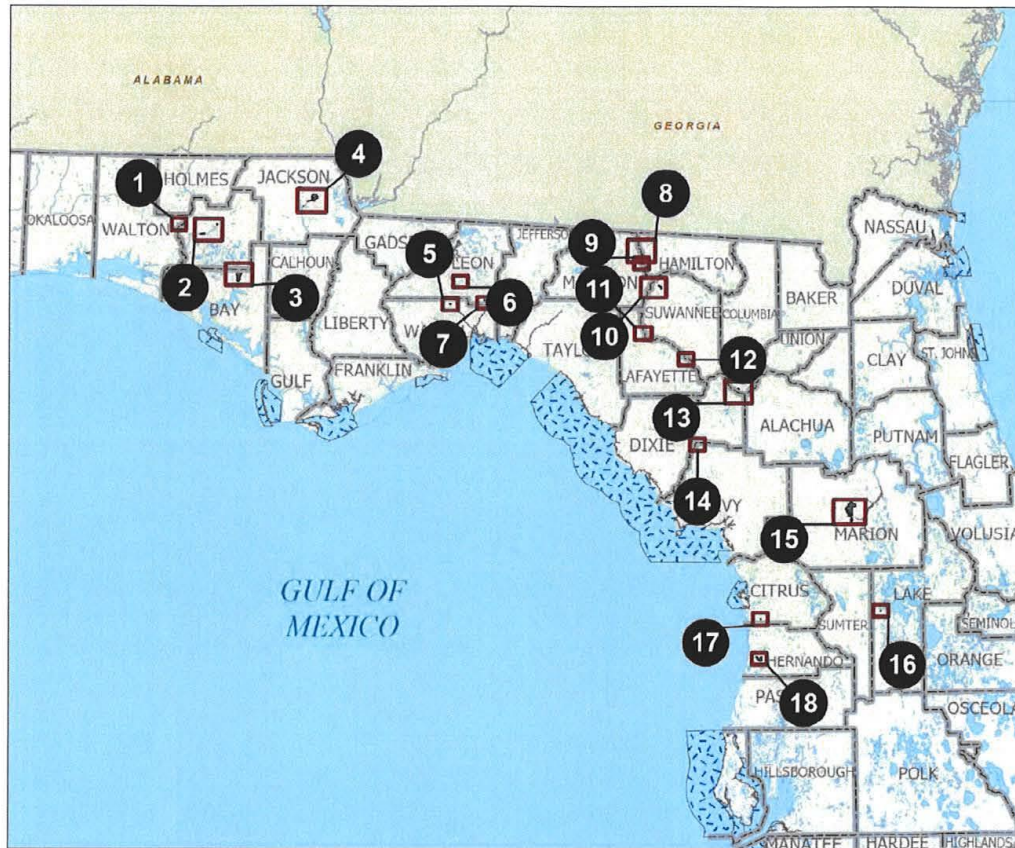
Jackson County expects the FWC to cooperate in managing wildlife on the Blue Spring project area. Other appropriate agencies may wish to become involved in the project. As funds become available and subject to public approval, the USDA Forest Service may enter into a cooperative agreement to manage the property.



Management Cost Summary

<u>DRP</u>	<u>Startup</u>	<u>Recurring</u>	<u>Startup</u>	<u>Recurring</u>
<i>Source of Funds</i>	<i>Federal</i>	<i>Federal</i>	<i>CARL</i>	<i>CARL</i>
<i>Salary</i>	\$0	\$5,000	\$22,167	\$22,167
<i>OPS</i>	\$0	\$0	\$7,280	\$7,280
<i>Expense</i>	\$3,000	\$5,000	\$5,424	\$5,424
<i>OCO</i>	\$0	\$0	\$6,978	\$6,978
<i>FCO</i>	\$0	\$0	\$0	\$0
<i>TOTAL</i>	\$3,000	\$10,000	\$41,849	\$41,849

Source: Management Prospectus as originally submitted



FLORIDA'S FIRST MAGNITUDE SPRINGS: OVERVIEW

BAY, CITRUS, COLUMBIA, GILCHRIST, HAMILTON, HERNANDO, JACKSON, LAFAYETTE, LAKE, LEON, LEVY, MADISON, MARION, SUWANNEE, WAKULLA, WALTON, AND WASHINGTON COUNTIES

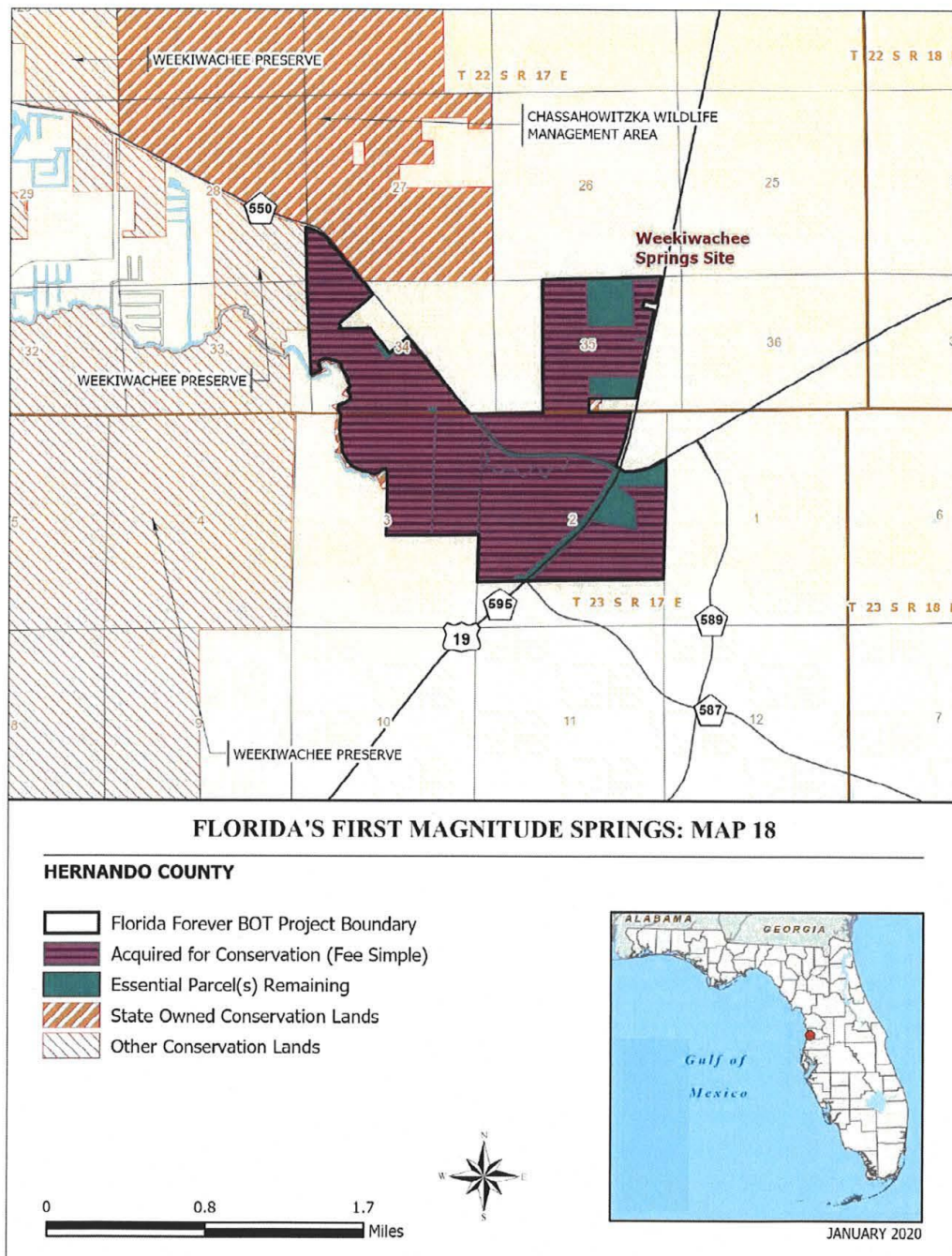
- | | |
|--|---|
| ☐ Map 1 Morrison Springs Site | ☐ Map 10 Falmouth Spring Site |
| ☐ Map 2 Brunson Landing Tract Site | ☐ Map 11 Lafayette Blue Springs Site |
| ☐ Map 2 Cypress Spring Site | ☐ Map 12 Troy Spring Site |
| ☐ Map 3 Gainer Springs Site | ☐ Map 13 Blue Springs Park Site |
| ☐ Map 4 Jackson Blue Springs Site | ☐ Map 13 Santa Fe Springs Site |
| ☐ Map 5 River Sink Spring Site | ☐ Map 14 Fanning Springs Site |
| ☐ Map 6 Church Sink Site | ☐ Map 15 Silver Springs Site |
| ☐ Map 7 St. Marks Springs Site | ☐ Map 16 Bugg Spring Site |
| ☐ Map 8 Hardee Spring Site | ☐ Map 17 Springs Coast Research Station Site |
| ☐ Map 9 Madison Blue Springs Site | ☐ Map 18 Weekiwachee Springs Site |
| ☐ Map 10 Damascus Peanut Tract Site | |



JANUARY 2020

0 50 100
Miles

Project Map 91: Source → Florida Natural Areas Inventory (FNAI, January 2020)



Project Map 109: Source → Florida Natural Areas Inventory (FNAI, January 2020)

Exhibit S

Land Management Reviews (2013, 2017, and 2022)

Name of Site: Indian Lake State Forest

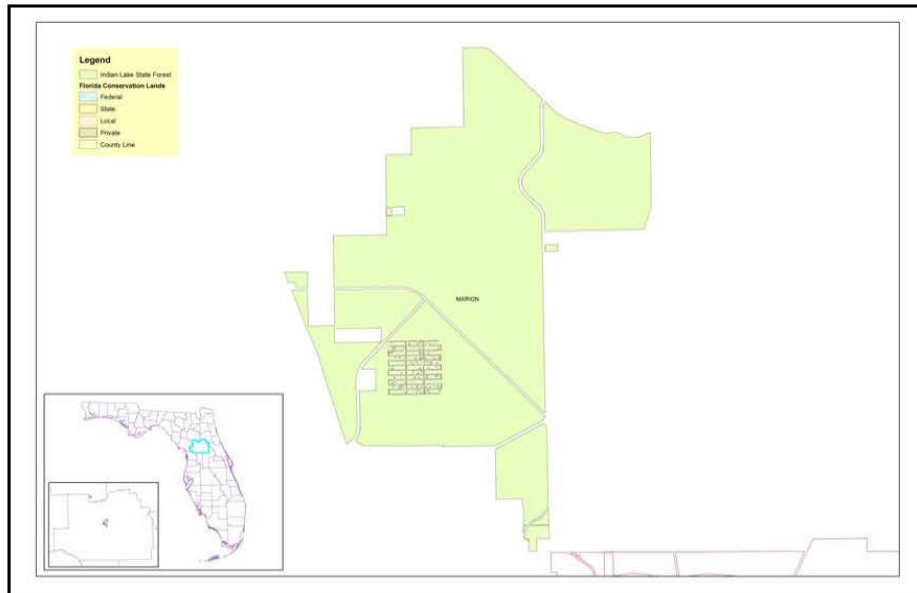
County: Marion

Managed by: Department of Agriculture and Consumer Services
Florida Forest Service

Acres: 4,461.04

Review Date: 06/18/13

Management Plan Approval Date: 2/24/11



Review Team Determination

Managed in accordance with
acquisition purpose? Yes = 8, No = 0



Management practices, including public access,
in compliance with the management plan? Yes = 8, No = 0



Categories	Management Plan Review	Field Review
Natural Communities	0.99	2.97
Listed Species	0.79	2.42
Natural Resource Survey	0.64	1.98
Cultural Resources	1.00	3.81
Prescribed Fire	0.96	4.00
Restoration	0.98	3.70
Exotic Species	0.73	2.69
Groundwater Monitoring	0.86	3.60
Surface Water Monitoring	0.33	3.00
Resource Protection	0.91	3.48
Adjacent Property Concerns	0.87	3.45
Public Access & Education	0.59	2.51
Managed Area Uses	1.00	N/A
Buildings, Equipment, Staff & Funding	N/A	1.36

Consensus Commendations to the Managing Agency

The following commendations resulted from discussion and vote of the review team members.

1. The team commends the FFS staff for their excellent efforts at establishing and maintaining firelines, and for instituting a dynamic prescribed fire program throughout the majority of the sandhill and old agricultural lands in an expeditious manner. (VOTE: 8+, 0-)



2. The team commends the FFS for their efforts to plan and initiate burning exotic plant control, and reforestation goals for the restoration of agriculture fields. (VOTE: 8+, 0-)



3. The team commends the FFS for their exotic plant survey efforts, and their ongoing treatments of cogongrass. (VOTE: 8+, 0-)



4. The team commends the FFS for their archaeological management and protection efforts at the forest. (VOTE: 8+, 0-)



Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The management plan must include responses to the recommendations identified below.

1. The team recommends that FFS continue efforts to increase the amount of sandhill treated with growing season fire. (VOTE: 8+, 0-)



Managing Agency Response: FFS will continue to implement efforts to burn the sandhill natural community on the ILSF, consistent with Goal 1 Objective 2 in the management plan.

2. The team recommends that FFS contract with FNAI for natural community mapping. (VOTE: 8+, 0-)



Managing Agency Response: FFS will continue to seek funding for a FNAI map. On-site managers will update current mapping in GIS as new information and natural community boundaries are ascertained.

3. The team recommends that FFS pursue plant animal surveys, which includes ongoing monitoring. (VOTE: 8+, 0-)



Managing Agency Response: FFS will continue to seek funding and/or opportunities to implement plant surveys and monitoring as identified in the various Goal 8 objectives in the management plan.

Field Review Checklist Findings

The following items received high scores on the review team checklist, indicating the management actions in the field exceeded expectations.

- Natural Communities, specifically basin swamp and sinkhole lake.
- Cultural Resources, specifically cultural resource survey, protection and preservation.
- Resource Management, Prescribed Fire, specifically area being burned (no. acres), frequency and quality.

- Forest Management, specifically, timber inventory, timber harvesting and reforestation/afforestation.
- Ground Water Monitoring, specifically ground water quality and quantity.
- Resource Protection, specifically boundary survey and signage.
- Adjacent Property Concerns, specifically inholdings/additions.

Items Requiring Improvement Actions in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than .5 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

1. The review team average score indicates a need for acknowledgement of non-native, invasive & problem species, specifically prevention of plants. Please provide documentation in the management plan.

Managing Agency Response: FFS will continue to have a section on exotic and invasive species maintenance and control, including plants, in future plans. Goal 5 Objective 1 of the current management plan discusses the need to write a "Non-Native Invasive Species Control Plan", including guidelines for detection, monitoring, prevention, and treatment of such species". As stated, prevention will be a component of this operational plan.

2. The review team average score indicates a need for acknowledgement of surface water monitoring, specifically water quality and quantity. Please provide documentation in the management plan.

Managing Agency Response: FFS will continue to interact with the water management district regarding water monitoring activities when writing future plans. The current plan has a significant section addressing local water quality needs as it relates to the protection of the nearby Silver Springs and the local aquifer.

3. The review team average score indicates a need for acknowledgement of environmental education & outreach, specifically wildlife, invasive species, habitat management activities and management of visitor impacts. Please provide documentation in the management plan.

Managing Agency Response: Outreach and extension are important missions for FFS.

PLAN REVIEW		1	2	3	4	5	6	7	8	AVERAGE
Natural Communities (I.A)										
Sandhill	I.A.1	1	1	1	1	1	1	1	1	1.00
Mesic Flatwoods	I.A.2	1	1	1	1	1	1	1	1	1.00
Mesic Hammock	I.A.3	1	1	1	1	1	1	1	1	1.00
Baygall	I.A.4	1	1	1	1	1	1	1	1	1.00
Basin Marsh	I.A.5	1	1	1	1	1	1	0	1	0.88
Basin Swamp	I.A.6	1	1	1	1	1	1	1	1	1.00
Sinkhole Lake	I.A.7	1	1	1	1	1	1	1	1	1.00
Depression Marsh	I.A.8	1	1	1	1	1	1	1	1	1.00
Sinkhole	I.A.10	1	1	1	1	1	1		1	1.00
Listed species:Protection & Preservation (I.B)										
Animal Inventory	I.B.1	1	1	1	1	1		0	1	0.86
Plant Inventory	I.B.2	1	1	1	0	1		0	1	0.71

Law enforcement presence	III.G.4	0	1	1	0	0	1	1	1	0.63
Adjacent Property Concerns (III.H)										
Land Use										
Expanding development	III.H.1.a		1	1	0	1	1	1	1	0.86
Inholdings/additions	III.H.2	1	1	1	1	1	1	1	1	1.00
Discussion of Potential Surplus Land Determination	III.H.3	0	1	1	1	1	1	0	1	0.75
Surplus Lands Identified?	III.H.4	0	1	1	1	1	1	1	1	0.88
Public Access & Education										
Public Access										
Parking	IV.1.b	0	1	1	1	1	1	1	1	0.88
Environmental Education & Outreach										
Wildlife	IV.2.a	0	1	1	0	0		0	1	0.43
Invasive Species	IV.2.b	0	1	1	0	0		0	1	0.43
Habitat Management Activities	IV.2.c	0	1	1	0	0		0	1	0.43
Interpretive facilities and signs	IV.3	0	1	1	0	1		1	1	0.71
Recreational Opportunities	IV.4	0	1	1	1	1		1	1	0.86
Management of Visitor Impacts	IV.5	0	1	1	0	0		0	1	0.43
Managed Area Uses										
Existing Uses										
Hiking	VI.A.1	1	1	1	1	1	1	1	1	1.00
Nature Study	VI.A.2	1	1	1	1	1	1	1		1.00
Wildlife Photography	VI.A.3	1	1	1	1	1	1	1		1.00
Proposed Uses										
Equestrian Trail	VI.B.1		1	1	1	0	1	1	1	0.86
Primitive Camping	VI.B.2		1	1	1	0		1	1	0.83

Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 2.5 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan must include responses to the checklist items identified below:

- The review team average score indicates a need for acknowledgement of natural communities, specifically sandhill and mesic flatwoods. Please provide documentation in the management plan.**
Managing Agency Response: It is acknowledged that the average score here of approximately a "2" reflects a composite team score that would suggest 20-40% of these communities is currently in "maintenance condition". FFS will continue to implement efforts to burn both the mesic flatwoods and sandhill natural communities on the ILSF, consistent with Goal 1 Objective 2 in the management plan. Invading hydric vegetation (e.g. loblolly bay) and areas of heavy midstory oaks will be reduced through prescribed fire and mechanical treatments or harvest, as necessary.
- The review team average score indicates a need for acknowledgement of listed species: protection & preservation, specifically animal and plant inventory. Please provide documentation in the management plan.**

Natural Resources Survey/Management Resources (I.C)										
Listed species or habitat monitoring	I.C.2	1	0	1	0	1		0	1	0.57
Other non-game species or habitat monitoring	I.C.3	1	0	1	0	1		0	1	0.57
Fire effects monitoring	I.C.4	1	0	1	0	1		0	1	0.57
Other habitat management effects monitoring	I.C.5	1	0	1	0	1	1	0	1	0.63
Invasive species survey / monitoring	I.C.6	1	0	1	1	1		1	1	0.86
Cultural Resources (Archeological & Historic sites) (II.A,II.B)										
Cultural Res. Survey	II.A	1	1	1	1	1	1	1	1	1.00
Protection and preservation	II.B	1	1	1	1	1	1	1	1	1.00
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	1	1	1	1	1	1	1	1	1.00
Frequency	III.A.2	1	1	1	1	1	1	1	1	1.00
Quality	III.A.3	1	1	1	1	1	1	0	1	0.88
Restoration of Ruderal Areas (III.B)										
Sandhill Restoration	III.B.1	1	1	1	1	1	1	0	1	0.88
Forest Management (III.C)										
Timber Inventory	III.C.1	1	1	1	1	1	1	1	1	1.00
Timber Harvesting	III.C.2	1	1	1	1	1	1	1	1	1.00
Reforestation/Afforestation	III.C.3	1	1	1	1	1	1	1	1	1.00
Site Preparation	III.C.4	1		1	1	1	1	1	1	1.00
Non-Native, Invasive & Problem Species (III.E)										
Prevention										
prevention - plants	III.E.1.a	1	1	1	0	0		0	0	0.43
prevention - animals	III.E.1.b	0	1	1	1	0		0	1	0.57
prevention - pests/pathogens	III.E.1.c	1	1	1	1	0		0	1	0.71
Control										
control - plants	III.E.2.a	1	1	1	1	1		1	1	1.00
control - animals	III.E.2.b		1	1	1	0		1	1	0.83
control - pest/pathogens	III.E.2.c		1	1	1	1		0	1	0.83
Ground Water Monitoring (III.F.2)										
Ground water quality	III.F.2.a		1	1	1	1	1	0	1	0.86
Ground water quantity	III.F.2.b		1	1	1	1	1	0	1	0.86
Surface Water Monitoring (III.F.3)										
Surface water quality	III.F.3.a		1		0	0	1	0	0	0.33
Surface water quantity	III.F.3.b		1		0	0	1	0	0	0.33
Resource Protection (III.G)										
Boundary survey	III.G.1	1	1	1	1	1	1	1	1	1.00
Gates & fencing	III.G.2		1	1	1	1	1	1	1	1.00
Signage	III.G.3		1	1	1	1	1	1	1	1.00

Managing Agency Response: FFS will continue to seek funding and/or opportunities to implement plant surveys and monitoring as identified in the various Goal 8 objectives in the management plan.

3. The review team average score indicates a need for acknowledgement of natural resources survey/management resources, specifically other non-game species or habitat monitoring, fire effects monitoring and other habitat management effects monitoring. Please provide documentation in the management plan.

Managing Agency Response: FFS will implement and document the various objectives found in Goal 8 of the management plan. FFS will continue to conduct the timber inventory and fire effects monitoring discussed in the FFS State Lands Handbook

4. The review team average score indicates a need for acknowledgement of non-native, invasive & problem species, specifically prevention of plants, animals and pest/pathogens. Please provide documentation in the management plan.

Managing Agency Response: FFS will continue to treat known populations of invasive plants on ILSF – with a particular focus on the control of cogon grass. With an eye to prevention, FFS will be contacting Marion County to request right of way populations of cogon grass adjacent to ILSF receive treatment priority. As stated in the current management plan, FFS will be preparing a formal “Non-Native Invasive Species Control Plan”, including guidelines for detection, monitoring, prevention, and treatment of such species”. As stated, prevention will be a component of this operational plan.

5. The review team average score indicates a need for acknowledgement of resource protection, specifically law enforcement presence. Please provide documentation in the management plan.

Managing Agency Response: FFS is waiting on FWC to evaluate the potential for ILSF to be a Wildlife Management Area.

6. The review team average score indicates a need for acknowledgement of environmental education & outreach, specifically wildlife, invasive species, habitat management activities and interpretive facilities and signs. Please provide documentation in the management plan.

Managing Agency Response: FFS agrees that outreach and extension are important missions.

FIELD REVIEW		1	2	3	4	5	6	7	8	AVERAGE
Natural Communities (I.A)										
Sandhill	I.A.1	2	3	3	1	2	X	2	3	2.29
Mesic Flatwoods	I.A.2	1	3	2	2	2	X		3	2.17
Mesic Hammock	I.A.3	1	3	3	3	3	X	4	3	2.86
Baygall	I.A.4	2	3	4	2	4	X	5	4	3.43
Basin Marsh	I.A.5	2	3	4	1	2	X	4	3	2.71
Basin Swamp	I.A.6	2	3	4	5	3	X	5	4	3.71
Sinkhole Lake	I.A.7	2	3	4	5	5	X	5	4	4.00
Depression Marsh	I.A.8	1	3	3	3	2	X	5	3	2.86
Sinkhole	I.A.10	1	3	3	2	4	X	3	3	2.71
Listed species:Protection & Preservation (I.B)										
Animal Inventory	I.B.1	2	3	3		3	X	1	3	2.50
Plant Inventory	I.B.2	2	3	3		2	X	1	3	2.33
Natural Resources Survey/Management Resources (I.C)										
Listed species or habitat monitoring	I.C.2	2	1	2	1	2	X	1	3	1.71
Other non-game species or habitat	I.C.3	2	1	2	2	3	X	2	2	2.00

[illegible]

Parking	IV.1.b		2	3	3	3	3	3	3	2.86
Environmental Education & Outreach										
Wildlife	IV.2.a		2	2	2	X	X	2	3	2.20
Invasive Species	IV.2.b		2	2	1	X	X	2	3	2.00
Habitat Management Activities	IV.2.c		2	2	2	X	X	2	3	2.20
Interpretive facilities and signs	IV.3		2	2	2	4	X	3	2	2.50
Recreational Opportunities	IV.4		2	2	4		X	3	3	2.80
Management of Visitor Impacts	IV.5		3	2	3	X	X	4	3	3.00
Management Resources										
Infrastructure										
Buildings	V.2.a	1		1					2	1.33
Equipment	V.2.b	1	2	1	2	2	1	3	3	1.88
Staff	V.3	1	1	1	1	1	1	1	2	1.13
Funding	V.4	1	1	1	1	1	1	1	2	1.13

Forest Service Manager and Key Staff Present:

Justin Kilcrease, FFS Forester
Ernie Ash
Charlie Pedersen

APPENDIX:

The following comments represent individual comments, and may not represent the consensus of the land management review team.

I.A. Natural Communities

- I don't feel qualified to pass judgement on the field review. No monies provide by state legislature to accomplish goals.
- Need to figure out what is xeric hammock & what/how to address!
- Need to verify if xeric hammock exists & management goals. Need FNAI inventory.
- FFS hasn't had the property very long; they've done a lot of work in the short period of time that they've managed it.
- While little of the sandhill has made it to maintenance condition, it is well on its way-management has improved the conditions significantly in a very short time. Much of the habitat communities are on their way but not quite to maintenance condition-any low score should not be a reflection of the quality of work that has been done-for only 5 years-it looks great.
- Through the discussions regarding management, practical and proper management steps have been taken. Limitation of funding and abilities to burn seem to be the limiting factors. Abilities to burn are considered to be seasonal conditions and surrounding community smoke concerns.
- Area needs an FNAI to map natural communities.
- Excellent efforts to initiate burning throughout much of the largely intact sandhill. Initial burns have had positive impact on reducing vigor of midstory turkey oaks. Full groundcover recovery will require continued effort at increasing frequency of growing season fires. Suggest assessing sandhill for sections/pockets of denser pine stocking for potential thinning. Several areas of sandhill observed had particularly dense midstory of turkey oaks which may require some level of herbicide treatment. Suggest a more structured assessment of groundcover composition to determine effects of recent prescribed fires and help establish priorities for transitioning towards greater growing season fire frequency. This would also help determine which stands/bur unit have returned to within a range of desired condition. The mgt. plan/maps indicate presence of dome swamps, however field inspection indicated these sites were fire-suppressed depression marshes. It is suggested that FFS pursue FNAI natural community mapping for this property when funds become available. Really good effort to execute a thinning harvest (to an average of 60-70 basal area) slash pine in the small mesic flatwoods stand east of Indian Lake. Groundcover and midstory loblolly bay vegetation remains too dense in areas, however, future prescribed fires should reduce this undesired component within a few fire cycles. Burns will have to be cool at first due to the thick duff layer that's built up after years of fire suppression. Good job to remove a strip of trees along the east boundary along Rayonier's property which will be worked into a solid fire break to be used during future burns. Generally speaking, the depression and basin marshes have too much woody vegetation present in areas and will need one or more prescribed burns to reduce densities and encourage grassy and herbaceous species. More research and field assessment is needed regards the existing and desire densities and composition of trees and shrubs growing in, and at the edge, of the property sinkholes.

I.B. Listed Species: Protection and Preservation

- Need FNAI to inventory then revisit plan!
- A mosaic of open ruderal areas adjacent to sandhill communities needs to be kept in a mostly open condition-few pines should be planted simultaneously.
- Now that many burns have been implemented, a detailed plan for plants must be established. The single sentence provided in the plan is no longer sufficient.
- Planting of ruderal areas with closed canopy tree plantations will be detrimental to many listed species and rare species, including gopher tortoise, Sherman's fox squirrel, Florida mouse, southeastern kestrel, and Florida pine snake.
- Surveys for gopher tortoise have been suggested to provide some baseline data and support for whether the property might have potentials as a mitigation park-however as of yet no funding has been identified. Other known wildlife species continue to be observed/monitored, however, no formal documentation is made. Suggest pursuing active support from local chapter of FNPS to

conduct field surveys to improve knowledge of location and identification of native plants and groundcover species.

I.C. Natural Resources Survey/Management Natural Resources

- Need plan, funding & proper staff to address!
- More detail should be given to these components as more acreage enters maintenance conditions. A shift should begin to other long term objectives that include much of species monitoring.
- So far, no funding has been received to establish/implement monitoring protocols for native plants and wildlife. Suggest current staff establish some level of documentation for incidental observation of rare species to include data and location of observance. Good effort at locating and mapping invasive plants particularly in disturbed/agriculture areas that are being restored.

II.A.B. Cultural Resources

- Address further as sites are identified & listed.
- Identification of historic resources is good; if it is questioned that there is likely unmarked graves- it could help to try to have them identified with the radar DHR mentioned.
- Previous cultural surveys have identified approximately eleven sites and one on-site cemetery which are all mapped and monitored. Good efforts at maintaining fence and security of the Indian Lake Cemetery. The manager is trained as an archeological site monitor.

III.A. Resource Management

- Commendation for acres burned in short period of management.
- Great job getting onto a schedule of growing season burns. Prescribed fire preparation (e.g. firebreaks) is good.
- Burn program has been very well implemented, adaptive, and very successful-especially given the short time frame!
- Excellent effort at introducing prescribed fire to the majority of the sandhill sites, with a few burn units having been done during the growing season. Continued focus on burning will be needed to have impact on reducing density of turkey oaks and enhancing groundcover species. Desired 1-3 year fire frequency will require burning of nearly 500 acres per year. The recent timber thinning harvest in the mesic flatwoods should help reduce the difficulty of introducing fire to this area of the forest. Great job establishing harrowed firelines throughout the property.

III.B. Restoration

- Not much emphasis is given in the plan to groundcover & wiregrass restoration.
- The plan only addresses reforestation not full restoration.
- Excellent work to initiate burning and reforestation on the nearly 1700 acres of old agricultural lands. While the majority of this has now been burned twice, poor funding has limited reforestation to approximately 300 acres. FFS stated however they were anticipating the funding of 500 acres of reforestation during the next fiscal year.

III.C. Forest Management

- Good thinning-provided revenue & facilitates prescribed burning.
- Scalping will not be good for long-term groundcover restoration.
- All forest stands have been inventoried and mapped. The recent flatwoods thinning harvest was well executed, reducing basal areas down to 60-70 BA. Reforestation efforts with longleaf pine seedlings has had very good success following scalping of the bahia and old crop fields - with 400-500+ trees per acre surviving.

III.D. Non-native, Invasive & Problem Species

- Feral hogs are included in the plan table as increasing, but there's no discussion in the plan as to control.
- Prevention of invasives is not addressed in the plan. Measures such as vehicle washing should be considered. This area of the plan could use more detail, most notably with pest and pathogens.
- Suggest FFS research and establish protocol for inspecting & cleaning equipment at entry to the property if having had worked in cogon grass areas. This should also be the case regarding "quarantine" period for fill material brought on site. Excellent work to identify and treat all known on site populations of cogon grass. Suggest pursuing county to prioritize treatment of all adjacent road shoulder populations of cogon grass to minimize re-introduction onto state forest. More funding will be required to address other invasive trees in the southern-most area of the property. No hog damage was observed.

III.E. Hydrologic/Geologic Functions

- St. Johns water mgt. Silver Springs water quality.
- Water management district is monitoring.
- All wells have been capped. SJRWMD maintains four onsite monitoring wells.

III.F. Resource Protection

- Need money to do boundary survey, gates, fencing and signage from state legislature.
- Good job on fence maintenance and boundary signs along the majority of the forest boundary.

III.G. Adjacent Property Concerns

- Good job by FFS at acquiring many of the small private plots in the area just northeast of the Ocala Springs Elementary School.

IV. Public Access and Education

- Park/state forest needs to be passive.
- More attention should be given to planning of outreach-school is close by. There is no website or brochure. This should be addressed.
- Good start on public access/recreation with the recent completion of parking/trailhead for the (Indian Lake) Bear'n Oak hiking trail. Work is soon to commence on the planned equestrian parking area and trailhead. More funding is needed for FFS to assess project of removing old Ocala Springs campground and development of day use and primitive camping facilities at that location.

V. Infrastructure/ Management Resources

- Equipment comes from other areas. ILSF needs dedicated staff & sufficient funding to be managed properly.
- Equipment is shared with Ross Prairie-not any dedicated equipment for this site. No dedicated staff for this property-funding levels need to increase to meet the needs of this property.
- Much of the equipment is borrowed from Ross Prairie. No dedicated staff for ILSF. No funding was given until the last year and it was not much. No \$ and no staff means not meeting some crucial goals.
- Equipment: Root Rake. Need staff or Indian Lake; dedicated staff specifically for this state forest. Need staff for plant inventory and funding for FNAI maps.
- Staff has a need for a root rake to assist with reforestation efforts. This property has no additional FTE positions assigned to it since its acquisition. It is currently managed by the Ross Prairie State Forest forester and (Marion County) FFS forest rangers. Very little expense funding is provided so there has been slow progress in developing public access recreation sites and facilities. No biological monitoring or natural community mapping has been funded. The cleanup of the large abandoned campground at Indian Lake has not been funded. Reforestation expenses have been unfunded for past three years. Invasive plant treatment work outside of the priority restoration sites has been unfunded as well.

VI. Managed Area Uses

- Staff needs to designate twin tracks & other improved roads for on road bicycle trails & provide a map.

Management Review Determination

- Restoration of the sandhill thus far has been successful. Public use still in infancy, but is moving forward. Management is moving forward very well in implementing plan goals.
- FFS/manager are very sensitive to the potential impacts of mgt./activities on groundwater quality and protection of Silver Springs.

2017 Land Management Review Team Report for Indian Lake State Forest

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1. Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In case where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team “shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan.”

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district or jurisdictional water management district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

1.1. Property Reviewed in this Report

Name of Site: Indian Lake State Forest

Managed by: Department of Agriculture and Consumer Services Florida Forest Service

Acres: 4,461.04

County: Marion

Purpose(s) for Acquisition: to protect and restore the natural and cultural values of the property and provide the greatest benefit to the citizens of the state.

Acquisition Program(s): Florida Forever

Original Acquisition Date: 7/25/07

Area Reviewed: Entire Property

Last Management Plan Approval Date: 2/14/11

Review Date: 10/26/17

Agency Manager and Key Staff Present:

- Pat Deren, Manager
- Ernie Ash, FFS
- Terry Sheehan, FFS
- Nicole Barberi, FFS
- Charlie Pederson, FFS
- Alan Davis, FFS

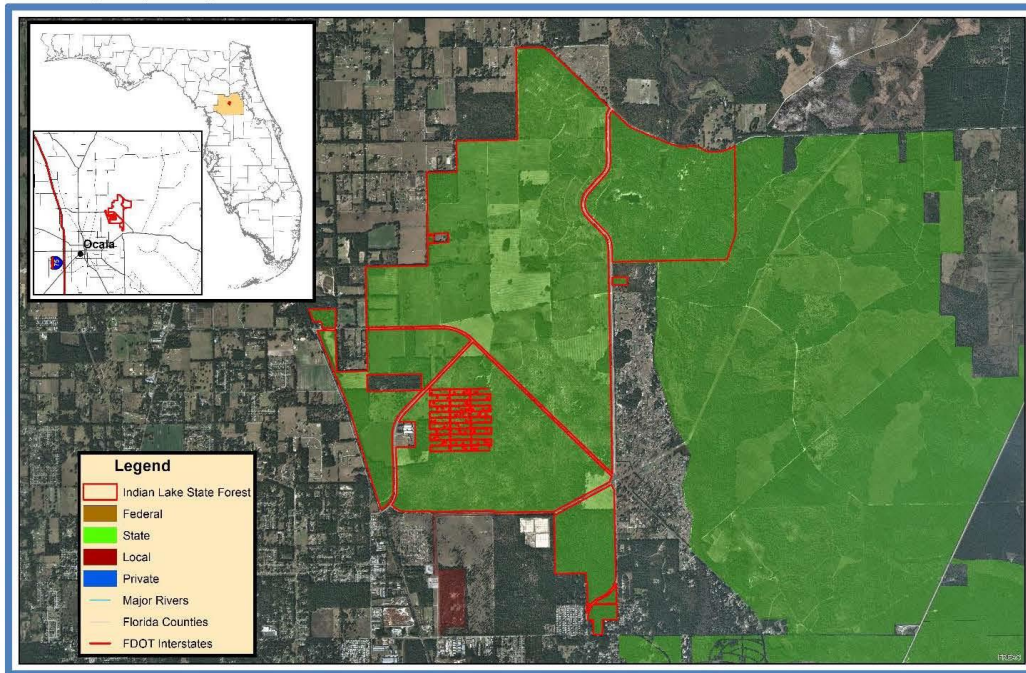
Review Team Members Present (voting)

- Allegra Buyer, DRP District
- Guy Marwick, Local Rep.
- Travis Blunden, FWC
- Jason Seyfert, DEP District
- Jeremy Olsen, SJRWMD
- Wendy Poag, Conservation Org.
- Private Land Manager, None
- Bill Korn, FFS

Other Non-Team Members Present (attending)

- James Parker, DEP/DSL
- Keith Singleton, DEP/DSL
- Athena Philips, FNPS
- Greg Ballinger, FNPS

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed for purposes that are compatible with conservation, preservation, or recreation?

Yes = 7, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 7, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.35	4.23
Prescribed Fire / Habitat Restoration	3.75	3.75
Hydrology	3.95	3.79
Imperiled Species	3.83	3.00
Exotic / Invasive Species	3.93	3.70
Cultural Resources	4.86	4.86
Public Access / Education / Law Enforcement	3.96	3.87
Infrastructure / Equipment / Staffing	3.35	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

1.3.1 Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the Florida Forest Service (FFS) for blocking off driving access around Indian Lake. (7+, 0-)
2. The team commends the FFS for efforts at increasing the amount of growing season fire throughout the intact sandhill. (7+, 0-)
3. The team commends the FFS for successful reintroduction of longleaf pine to the majority of altered areas of sandhill which had been converted to agriculture prior to state acquisition. (7+, 0-)
4. The team commends the FFS for recent efforts to increase public access opportunities for hikers and equestrians as well as the improvements at Indian Lake for day use and primitive camping. (7+, 0-)
5. The team commends the FFS for efforts to identify, map and treat exotic invasive species onsite, especially the cogongrass infestations. (7+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

1. The team recommends that the FFS conduct an initial survey for gopher tortoise, both for density and distribution. (7+, 0-)

Managing Agency Response: If funding and/or staffing becomes available, FFS will conduct a gopher tortoise survey and address the results in the next resource management plan.

2. The team recommends that the FFS conduct an initial survey for endemic and listed plant species. (7+, 0-)

Managing Agency Response: If funding and/or staffing becomes available, FFS will conduct a listed plant survey and address the results in the next resource management plan.

3. The team recommends that the FFS continue efforts to acquire inholdings in the 100-acre property within the optimal boundary with cooperation with local organizations. (7+, 0-)

Managing Agency Response: Local forestry center staff will work with the FFS land acquisition section to identify possible parcels.

4. The team recommends that the FFS seek more staff for evolving recreational opportunities. (7+, 0-)

Managing Agency Response: FFS will seek opportunities to increase recreational staff.

5. The team recommends that the FFS consider the impacts of tree density on evapotranspiration and aquifer recharge in the next management plan update. (7+, 0-)

Managing Agency Response: FFS will work with the agencies hydrology section for proper tree density.

6. The team recommends that the FFS maintain open areas where appropriate to benefit wildlife and create diversity. (7+, 0-)

Managing Agency Response: The FFS will continue to identify and maintain some limited open areas to benefit wildlife.

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural communities, specifically mesic hammock, baygall, basin marsh, basin swamp, sandhill upland lake, sinkhole, xeric hammock
2. Listed species; Protection & Preservation, specifically plants
3. Natural resources survey/monitoring specifically invasive species survey/monitoring.
4. Cultural resources, specifically cultural resource survey, and protection and preservation
5. Resource management (prescribed fire), specifically frequency and quality.
6. Restoration, specifically sandhill restoration.
7. Forest Management, specifically timber inventory/assessment, timber harvesting, reforestation/afforestation, site preparation.
8. Non-native, invasive, and problem species, specifically prevention and control of plants
9. Ground Water Monitoring, specifically quality and quantity
10. Resource protection, specifically boundary survey, gates and fencing, signage and law enforcement presence.
11. Adjacent property concerns, specifically inholdings/additions.
12. Public access, specifically parking
13. Environmental education and outreach, specifically recreational opportunities
14. Management resources, specifically waste disposal, sanitary facilities, buildings

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

1. *The maintenance condition of the Natural Communities, specifically mesic flatwoods and depression marsh, received below average scores. The review team is asked to evaluate, based on*

their perspective, what percent of the natural community is in maintenance condition. The scores range from 1 to 5, with 1 being 0-20% in maintenance condition, 2 being 21-40%, 3 being 41-60%, 4 being 61-80% and 5 being 81-100%.

Managing Agency Response: The mesic flatwoods and associated depression marsh communities (120 acres) are a small component of ILSF, occurring along the eastern side of the forest. Up until recently they have had no history of prescribed burning.. This area has been a challenge to manage, since it is often too wet to access. The mature timber in the area was thinned by FFS several years ago. Since the October 2017 LMR, the southern half of this flatwoods community was burned by FFS. When conditions are right, FFS will continue to prescribe burn the remaining portion of this flatwood community. Areas of the heaviest fuel accumulation may first require a mechanical treatment (mowing or chopping) to reduce the midstory vegetation and to provide more ground fuels. Overall these management actions will serve to increase the maintenance condition of these two natural communities.

2. *Natural Resources Survey, specifically listed species or their habitat received below average scores. The review team is asked to evaluate, based on information provided by the managing agency, whether survey and monitoring of the resources or their habitats are sufficient.*

Managing Agency Response: See response to Consensus Recommendation #1 and #2.

3. **Environmental** *Education & Outreach, specifically, invasive species received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether education and outreach is sufficient.*

Managing Agency Response: FFS staff will continue to coordinate with the Big Scrub CISMA or other cooperators on invasive species outreach and seek other cooperators for invasive species outreach.

4. *Management Resources, specifically equipment, staff, and funding, received a below average score. The review team is asked to evaluate, based on information provided by the managing agency, whether management resources are sufficient.*

Managing Agency Response: See response to Consensus Recommendation #4.

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Sandhill	I.A.1	3	3	3	3	3	3	3		3.00
Mesic Flatwoods	I.A.2	2	1	2	1	1	1	1		1.29
Mesic Hammock	I.A.3	5	5	5	5	5	5	5		5.00
Baygall	I.A.4	5	5	5	5	5	5	5		5.00

Basin Marsh	I.A.5	5	5	5	5	5	5	4		4.86
Basin Swamp	I.A.6	5	5	5	5	5	5	5		5.00
Sandhill Upland Lake	I.A.7	5	5	5	5	5	5	5		5.00
Depression Marsh	I.A.8	2	2	3	4	3	2	2		2.57
Sinkhole	I.A.9	5	5	4	5	5	4	5		4.71
Xeric Hammock	I.A.9	5	5	5	4	5	5	5		4.86
Natural Communities Average Score										4.05
Listed species:Protection & Preservation (I.B)										
Animals	I.B.1	4	3	4						3.67
Plants	I.B.2	4	4	4						4.00
Listed Species Average Score										3.83
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	1	3	3		2	2		2.33
Fire effects monitoring	I.C.4	5	3	5	5	4	2	3		3.86
Other habitat management effects monitoring	I.C.5	4	4	5	4	3	3	4		3.86
Invasive species survey / monitoring	I.C.6	5	5	5	5	5	4	4		4.71
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	5	5	5	4	5	5		4.86
Protection and preservation	II.B	5	5	5	5	4	5	5		4.86
Cultural Resources Average Score										4.86
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A1	4	3	4	4	3	4	4		3.71
Frequency	III.A.2	5	5	4	5	3	4	4		4.29
Quality	III.A.3	5	5	5	5	5	5	5		5.00
Resource Management, Prescribed Fire Average Score										4.33
Restoration (III.B)										
Sandhill Restoration	III.B.2	4	2	x	4	2	3	4		3.17
Restoration Average Score										3.17
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	5	5	5	5	4	4	5		4.71
Timber Harvesting	III.C.2	5	5	5	5	3	5	5		4.71
Reforestation/Afforestation	III.C.3	5	5	5	5	3	5	5		4.71
Site Preparation	III.C.4	4	5	5	5	3	4	5		4.43
Forest Management Average Score										4.64
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	5	4	5	5	3	5		4.43
prevention - animals	III.D.1.b	4	4	4	4	3	3	4		3.71
prevention - pests/pathogens	III.D.1.c	4	4	4	4	3		3		3.67
Control										
control - plants	III.D.2.a	4	5	4	x	x	4	5		4.40
control - animals	III.D.2.b	4	4	4	x	x	3	4		3.80
control - pest/pathogens	III.D.2.c	4	4	4	x	x	3	3		3.60

Non-Native, Invasive & Problem Species Average Score										3.93
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	5	4	5	5	4	4	5		4.57
Ground water quantity	III.E.2.b	5	4	5	x	4	2	5		4.17
Ground Water Monitoring Average Score										4.37
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	3	4	4		4	3	3		3.50
Surface water quantity	III.F.3.b	3	4	4	4	4	3	3		3.57
Surface Water Monitoring Average Score										3.54
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	5	5	4	5	5		4.71
Gates & fencing	III.F.2	4	4	5	5	3	4	4		4.14
Signage	III.F.3	4	5	5	5	4	4	4		4.43
Law enforcement presence	III.F.4	4	4	5	4	3	4	4		4.00
Resource Protection Average Score										4.32
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a									
Inholdings/additions	III.G.2	3	5	5	5	5	4	5		4.57
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Parking	IV.1.b	4	5	5	5	5	5	3		4.57
Environmental Education & Outreach										
Wildlife	IV.2.a	3	3	3	4	4	2	3		3.14
Invasive Species	IV.2.b	3	3	3	2	3	2	3		2.71
Habitat Management Activities	IV.2.c	3	3	3	4	3	2	4		3.14
Interpretive facilities and signs	IV.3	3	3	5	4	3	3	3		3.43
Recreational Opportunities	IV.4	4	5	5	5	3	4	4		4.29
Management of Visitor Impacts	IV.5	4	5	5	4	4	2	3		3.86
Public Access & Education Average Score										3.59
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	3	4	5	4	5	4	4		4.14
Sanitary facilities	V.1.b	4	5	5	5	5	4	4		4.57
Infrastructure										
Buildings	V.2.a	4	4	5	5	5	4	5		4.57
Equipment	V.2.b	2	2	2	2	3	2	2		2.14
Staff	V.3	2	2	2	2	3	2			2.17
Funding	V.4	3	2	3	3	2	2			2.50
Management Resources Average Score										3.35

Color Code:

Excellent	Above Average	Below Average	Poor
	Missing Vote	Insufficient Information	

See Appendix A for detail

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

1. *Natural Communities, specifically, xeric hammock received below average scores. This is an indication that the management plan does not sufficiently address current or desired condition and/or future management actions to protect or restore.*

Managing Agency Response: In the current plan xeric hammock is not included as a historic natural community. It's discussed as Xeric Hammock Ruderal Sandhills within the historic Sandhill community. Since the plan was written FNAI surveyed the property and determined that there was 2.2 acres of historic xeric hammock. In future plans we will add a discussion of xeric hammock in the historical natural communities section. Historic sandhills which have succeeded into xeric hammocks will continue to receive priority for growing season fire. Some historical sandhills will need small parcel land acquisition for prescribed fire to be practical, making these acquisitions a priority.

2. *Natural Resources Survey and Monitoring Resources, specifically listed species or their habitat monitoring received a below average score. This is an indication that the management plan does not sufficiently address survey or monitoring.*

Managing Agency Response: Typically, FFS does not generally focus on surveying and monitoring of individual species, preferring to focus on total ecosystem management strategies – such as prescribe burning. The current management plan acknowledges that no surveys have been done, however, it does identify listed species surveying as a goal for the next 10 years, and indicates the need for \$20,000 for future surveys.

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Sandhill	I.A.1	5	4	5	4	4	4	4		4.29
Mesic Flatwoods	I.A.2	5	4	5		4	4	4		4.33
Mesic Hammock	I.A.3	5	4	5	5	4	4	4		4.43
Baygall	I.A.4	4	4	5	3	4	4	4		4.00
Basin Marsh	I.A.5	3	4	4	5	4	5	4		4.14
Basin Swamp	I.A.6	5	5	4	5	4	5	4		4.57

Sandhill Upland Lake	I.A.7	4	5	5	5	4	4	4		4.43
Depression Marsh	I.A.8	3	4	4	4	4	4	3		3.71
Sinkhole	I.A.9	5	5	4	5	4	4	5		4.57
Xeric Hammock	I.A.10	2	3	2	3	1	1	1		1.86
Natural Communities Average Score										4.03
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	3	4			2	2		3.00
Plants	I.B.2	3	4	4			2	2		3.00
Listed Species Average Score										3.00
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	2	3	3	3	2	2		2.57
Fire effects monitoring	I.C.4	4	3	5	5	4	2	4		3.86
Other habitat management effects monitoring	I.C.5	3	3	5	4	4	2	5		3.71
Invasive species survey / monitoring	I.C.6	4	5	5	5	4	3	5		4.43
Cultural Resources (Archeological & Historic sites) (II.A,II.B)										
Cultural Res. Survey	II.A	5	5	5	5	4	5	5		4.86
Protection and preservation	II.B	5	5	5	5	4	5	5		4.86
Cultural Resources Average Score										4.86
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	3	5	4	4	4	4			4.00
Frequency	III.A.2	3	5	4	5	4	4			4.17
Quality	III.A.3	3	5	5	5	4	4			4.33
Resource Management, Prescribed Fire Average Score										4.17
Restoration (III.B)										
Sandhill Restoration	III.B.2	4	3		5	2	3	3		3.33
Restoration Average Score										3.33
Forest Management (III.C)										
Timber Inventory / Assessment	III.C.1	4	5	5	5	4	4	4		4.43
Timber Harvesting	III.C.2	4	5	5	5	4	4	3		4.29
Reforestation/Afforestation	III.C.3	4	5	5	5	4	5	4		4.57
Site Preparation	III.C.4	4	5	5	5	4	5	3		4.43
Forest Management Average Score										4.43
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	3	3	4	5	4	4	5		4.00
prevention - animals	III.D.1.b	3	3	4	4	4	4	3		3.57
prevention - pests/pathogens	III.D.1.c	3	3	4	4	3	4	3		3.43
Control										
control - plants	III.D.2.a	4	5	4			4	4		4.20
control - animals	III.D.2.b	4	3	4			3	3		3.40
control - pest/pathogens	III.D.2.c	4	4	4			3	3		3.60
Non-Native, Invasive & Problem Species Average Score										3.70

Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	3	4	5		4	4	4		4.00
Ground water quantity	III.E.2.b	3	4	5	4	4	2	4		3.71
Ground Water Monitoring Average Score										3.86
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	3	4	5	5	4	2	3		3.71
Surface water quantity	III.E.3.b	3	4	5	5	4	2	3		3.71
Surface Water Monitoring Average Score										3.71
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	5	5	4	4	3		4.29
Gates & fencing	III.F.2	4	3	5	5	4	4	3		4.00
Signage	III.F.3	4	4	5	5	5	4	3		4.29
Law enforcement presence	III.F.4	4	4	5	4	4	4	4		4.14
Resource Protection Average Score										4.18
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	4	5	5	5	4	4	5		4.57
Discussion of Potential Surplus Land Determination	III.G.3	5	5	3		4	5	5		4.50
Surplus Lands Identified?	III.G.4	4	5	5	5	5	5	5		4.86
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Parking	IV.1.b	3	5	5		5	4			4.40
Environmental Education & Outreach										
Wildlife	IV.2.a	3	3	3	4	3	2	3		3.00
Invasive Species	IV.2.b	3	3	3	4	3	2	3		3.00
Habitat Management Activities	IV.2.c	3	3	3	4	3	2	3		3.00
Interpretive facilities and signs	IV.3	3	3	5	5	3	2	3		3.43
Recreational Opportunities	IV.4	4	5	5	5	4	3	4		4.29
Management of Visitor Impacts	IV.5	4	5	5	4	4	2	3		3.86
Public Access & Education Average Score										3.57
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Hiking	VI.A.1	5	5	5	5	5	5	5		5.00
Nature Study	VI.A.2	5	5	5	5	5	5	5		5.00
Wildlife Photography	VI.A.3	5	5	5	5	5	5	5		5.00
Proposed Uses										
Equestrian Trail	VI.B.1	3	5	5	5	4	4	4		4.29
Primitive Camping	VI.B.2	4	5	3	5	4	4	4		4.14

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing Vote

Insufficient
Information

See
Appendix A
for detail

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

2022 Land Management Review Team Report for Indian Lake State Forest

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Introduction

Section 259.036, F.S. requires a periodic on-site review of conservation and recreation lands titled in the name of the Board of Trustees to determine (1) whether the lands are being managed for the purposes for which they were acquired and (2) whether they are being managed in accordance with their land management plan adopted pursuant to s. 259.032, F.S. In cases where the managed areas exceed 1,000 acres in size, such a review must be scheduled at least every five years. In conducting this review, a statutorily constructed review team “shall evaluate the extent to which the existing management plan provides sufficient protection to threatened or endangered species, unique or important natural or physical features, geological or hydrological functions or archaeological features. The review shall also evaluate the extent to which the land is being managed for the purposes for which it was acquired and the degree to which actual management practices, including public access, are in compliance with the adopted management plan.”

The land management review teams are coordinated by the Division of State Lands and consist of representatives from the Division of Recreation and Parks (DEP), the Florida Forest Service (DACS), the Fish and Wildlife Conservation Commission, the local government in which the property is located, the DEP District in which the parcel is located, the local soil and water conservation district or jurisdictional water management district, a conservation organization member, and a local private land manager.

Each Land Management Review Report is divided into three sections. Section 1 provides the details of the property being reviewed as well as the overall results of the report. Section 2 provides details of the Field Review, in which the Review Team inspects the results of management actions on the site. Section 3 provides details of the Land Management Plan Review, in which the team determines the extent to which the Management Plan provides for and documents adequate natural and recreational resource protection.

Finally, each report may also contain an Appendix that lists individual team member comments. This is a compilation of feedback, concerns or other thoughts raised by individual team members, but not necessarily indicative of the final consensus reached by the Land Management Review Team.

Property Reviewed in this Report

Name of Site: Indian Lake State Forest

Managed by: Department of Agriculture and Consumer Services, Florida Forest Service

Acres: 4,461

County: Marion

Purpose(s) for Acquisition: to protect and restore the natural and cultural values of the property and provide the greatest benefit to the citizens of the state.

Acquisition Program(s): Florida Forever

Original Acquisition Date: 7/25/07

Area Reviewed: Entire Property

Last Management Plan Approval Date: 2/14/11

Review Date: 9/13/22

Agency Manager and Key Staff:

- Justin Kilcrease, Manager
- Charlie Pedersen
- Terry Sheehan

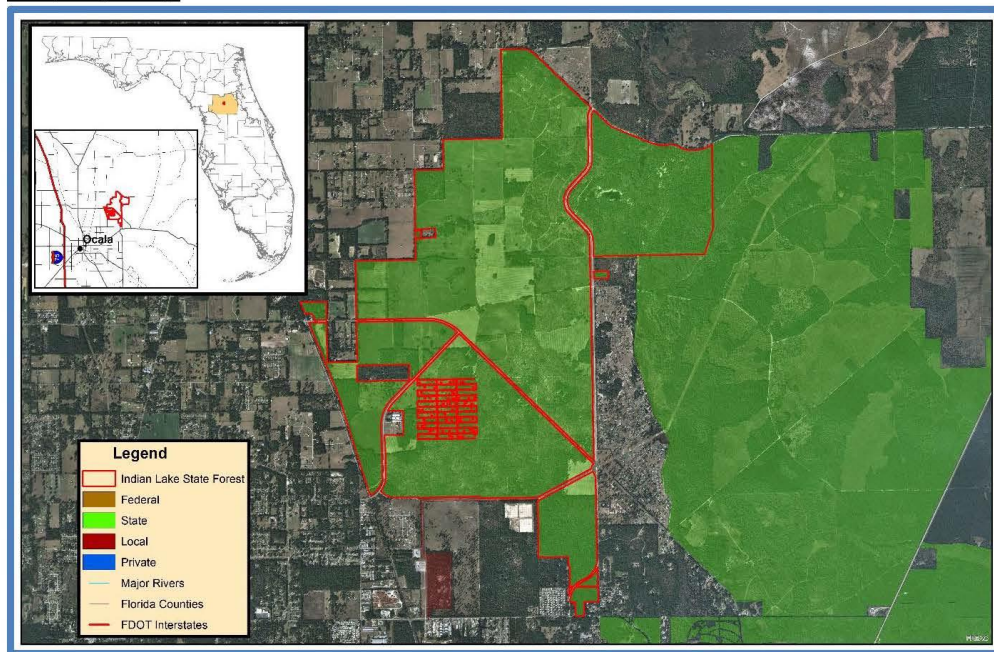
Review Team Members (voting)

- Laurie Dolan, DRP District
- Jim Couillard, Local Gov't.
- Aaron Johnson, FWC
- Charlie Nolan, DEP District
- Jason Love, FFS
- Amy Copeland, SJRWMD
- Michael Bubb, Conservation Org.
- Private Land Manager, None

Non-Team Members (attending)

- Keith Singleton, DEP/DSL

Property Map



Overview of Land Management Review Results

Is the property managed for purposes that are compatible with conservation, preservation, or recreation?

Yes = 7, No = 0

Are the management practices, including public access, in compliance with the management plan?

Yes = 7, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.44	4.46
Prescribed Fire / Habitat Restoration	4.29	4.45
Hydrology	3.90	3.90
Imperiled Species	3.86	3.93
Exotic / Invasive Species	3.90	3.90
Cultural Resources	4.29	4.21
Public Access / Education / Law Enforcement	4.09	4.17
Infrastructure / Equipment / Staffing	4.22	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

Consensus Commendations for the Managing Agency

The following commendations resulted from discussion and vote of the review team members:

1. The team commends the Florida Forest Service (FFS) for their prescribed burning program in the sandhill communities. (7+, 0-)

Consensus Recommendations to the Managing Agency

The following recommendations resulted from a discussion and vote of review team members. The next management plan update should include information about how these recommendations have been addressed:

There were no consensus recommendations.

Field Review Details

Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural communities, specifically sandhill, mesic hammock, baygall, basin marsh, basin swamp, sinkhole lake, depression marsh, sinkhole, and xeric hammock.
2. Natural resources survey/monitoring resources; specifically fire effects monitoring, and invasive species survey and monitoring.

3. Cultural resources, specifically cultural resource survey, and protection and preservation.
4. Prescribed fire, specifically area being burned, frequency and quality.
5. Restoration, specifically sandhill restoration.
6. Forest management, specifically timber inventory, timber harvesting, reforestation/afforestation and site preparation.
7. Non-native, invasive, and problem species, specifically prevention of animals, and control of plants.
8. Ground water monitoring, specifically quality.
9. Resource protection, specifically boundary survey, gates and fencing, and signage.
10. Adjacent property concerns, specifically inholdings and additions.
11. Public access, specifically parking.
12. Environmental education and outreach, specifically wildlife, habitat management activities, recreational opportunities, and management of visitor impacts.
13. Management resources, specifically waste disposal, sanitary facilities, buildings, and equipment.

Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

The review team scores did not identify items requiring improvement actions in the field.

Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Sandhill	I.A.1	4	4	4	5	5	5	4		4.43
Mesic Flatwoods	I.A.2	5	3	5	2	2	4	4		3.57
Mesic Hammock	I.A.3	4	5	5	5	5	5	5		4.86
Baygall	I.A.4	4	5	5	5	5	5	5		4.86
Basin Marsh	I.A.5	5	5	4	4	4	4	3		4.14
Basin Swamp	I.A.6	5	5	5	5	5	5	5		5.00
Sinkhole Lake	I.A.7	5		5	5	5	5	5		5.00
Depression Marsh	I.A.8	5	5	5	5	5	5	3		4.71
Sinkhole	I.A.9	5	4	5	4	5	5	4		4.57
Xeric Hammock	I.A.10	4	3	4	5	5	5	5		4.43
Natural Communities Average Score										4.56
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	4	4	3	4	5	3		3.86
Plants	I.B.2	4	4	4	3	4	5	3		3.86
Listed Species Average Score										3.86

Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	5	4	4	4	4	3		3.86
Other non-game species or their habitat monitoring	I.C.3	3	4	4	3	4	4	2		3.43
Fire effects monitoring	I.C.4	4	5	5	4	5	5	4		4.57
Other habitat management effects monitoring	I.C.5	4	4	3	3	4	4	3		3.57
Invasive species survey / monitoring	I.C.6	5	4	5	4	4	5	4		4.43
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	3	5	4	4	5	4		4.29
Protection and preservation	II.B	5	3	5	4	4	5	4		4.29
Cultural Resources Average Score										4.29
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	5	5	4	4	5	4		4.43
Frequency	III.A.2	5	5	5	5	4	5	4		4.71
Quality	III.A.3	4	5	5	5	5	5	3		4.57
Resource Management, Prescribed Fire Average Score										4.57
Restoration (III.B)										
Sandhill Restoration	III.B.1	4	4	4	3	4	5	4		4.00
Restoration Average Score										4.00
Forest Management (III.C)										
Timber Inventory	III.C.1	5	4	5	4	4	5	4		4.43
Timber Harvesting	III.C.2	5	3	5	4	4	5	3		4.14
Reforestation/Afforestation	III.C.3	5	5	5	4	5	5	4		4.71
Site Preparation	III.C.4	3	4	X	4	4	5	4		4.00
Forest Management Average Score										4.32
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	3	5	4	3	4	5	3		3.86
prevention - animals	III.D.1.b	5	4	4	4	4	5	2		4.00
prevention - pests/pathogens	III.D.1.c	5		4	3	3	5	3		3.83
Control										
control - plants	III.D.2.a	3	5	4	4	4	5	3		4.00
control - animals	III.D.2.b	5	4	4	3	4	5	2		3.86
control - pests/pathogens	III.D.2.c	5		4	3	3	5	3		3.83
Non-Native, Invasive & Problem Species Average Score										3.90
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	5	5	5	3	5	4	4		4.43
Ground water quantity	III.E.2.b	5	3	4	3	4	4	4		3.86
Ground Water Monitoring Average Score										4.14
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	5		4	3	4	4	2		3.67
Surface water quantity	III.F.3.b	5		4	3	4	4	2		3.67
Surface Water Monitoring Average Score										3.67

Resource Protection (III.F)										
Boundary survey	III.F.1	4	3	5	3	5	4	4		4.00
Gates & fencing	III.F.2	5	5	5	3	3	4	4		4.14
Signage	III.F.3	4	4	5	3	4	4	4		4.00
Law enforcement presence	III.F.4	4	4	4	3	4	4	4		3.86
Resource Protection Average Score										4.00
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	4	4	4	3	4	5	4		4.00
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Parking	IV.1.b	5	5	5	4	5	4	4		4.57
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	4	3	5	5	3		4.14
Invasive Species	IV.2.b	3	4	3	4	5	5	3		3.86
Habitat Management Activities	IV.2.c	4		3	4	4	5	4		4.00
Interpretive facilities and signs	IV.3	4	5	4	3	3	5	3		3.86
Recreational Opportunities	IV.4	5	5	5	4	4	5	4		4.57
Management of Visitor Impacts	IV.5	4	4	5	4	5	4	4		4.29
Public Access & Education Average Score										4.18
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	5	5	4	3	5	5	3		4.29
Sanitary facilities	V.1.b	5	5	5	3	5	5	4		4.57
Infrastructure										
Buildings	V.2.a	5	5	5	4	5	5	4		4.71
Equipment	V.2.b	4		4	4	5	5	4		4.33
Staff	V.3	4	4	5	3	4	2	3		3.57
Funding	V.4	4	4	5	3	4	4	3		3.86
Management Resources Average Score										4.22

Color Code:

Excellent	Above Average	Below Average	Poor
	Missing Vote	Insufficient Information	

See Appendix A for detail

Land Management Plan Review Details

Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

The review team scores did not identify items requiring improvements in the management plan.

Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Sandhill	I.A.1	3	5	5	5	5	5	5		4.71
Mesic Flatwoods	I.A.2	5	4	5	5	4	5	4		4.57
Mesic Hammock	I.A.3	5	5	5	5	4	5	3		4.57
Baygall	I.A.4	5	5	5	5	4	5	4		4.71
Basin Marsh	I.A.5	5	4	5	5	5	5	4		4.71
Basin Swamp	I.A.6	5	4	5	5	5	5	3		4.57
Sinkhole Lake	I.A.7	1		5	5	5	5	3		4.00
Depression Marsh	I.A.8	5	5	5	5	4	5	4		4.71
Sinkhole	I.A.9	5	3	5	5	5	5	5		4.71
Xeric Hammock	I.A.10	2	3	X	5	4	5	3		3.67
Natural Communities Average Score										4.50
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	4	4	4	5	5	2		4.00
Plants	I.B.2	2	4	4	4	5	5	3		3.86
Listed Species Average Score										3.93
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	5	5	4	4	4	3		4.00
Other non-game species or their habitat monitoring	I.C.3	4	4	2	4	4	4	3		3.57
Fire effects monitoring	I.C.4	5	5	4	4	5	5	2		4.29
Other habitat management effects monitoring	I.C.5	4	4	3	4	4	4	2		3.57
Invasive species survey / monitoring	I.C.6	5	4	5	4	5	4	4		4.43
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	3	5	5	5	5	3		4.29
Protection and preservation	II.B	4	3	5	5	4	5	3		4.14
Cultural Resources Average Score										4.21
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	5	5	5	4	5	4		4.57
Frequency	III.A.2	5	5	5	5	4	5	4		4.71
Quality	III.A.3	5	5	4	4	4	5	2		4.14
Resource Management, Prescribed Fire Average Score										4.48
Restoration (III.B)										
Sandhill Restoration	III.B.1	4	5	4	4	5	5	4		4.43
Restoration Average Score										4.43
Forest Management (III.C)										
Timber Inventory	III.C.1	5	4	5	5	5	5	3		4.57

Timber Harvesting	III.C.2	5	3	5	5	5	5	3		4.43
Reforestation/Afforestation	III.C.3	5	5	5	5	4	5	4		4.71
Site Preparation	III.C.4	4	4	X	3	5	5	3		4.00
Forest Management Average Score										4.43
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	3	5	5	4	4	4	3		4.00
prevention - animals	III.D.1.b	5	4	4	4	4	4	2		3.86
prevention - pests/pathogens	III.D.1.c	5		5	4	3	4	3		4.00
Control										
control - plants	III.D.2.a	4	5	5	4	4	4	3		4.14
control - animals	III.D.2.b	4	4	4	4	4	4	2		3.71
control - pests/pathogens	III.D.2.c	4		4	4	3	4	3		3.67
Non-Native, Invasive & Problem Species Average Score										3.90
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	5	5	5	4	5	3	4		4.43
Ground water quantity	III.E.2.b	5	3	4	4	4	3	4		3.86
Ground Water Monitoring Average Score										4.14
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	5		4	4	4	3	2		3.67
Surface water quantity	III.E.3.b	5		4	4	4	3	2		3.67
Surface Water Monitoring Average Score										3.67
Resource Protection (III.F)										
Boundary survey	III.F.1	5	3	5	4	5	4	3		4.14
Gates & fencing	III.F.2	5	5	4	4	5	4	3		4.29
Signage	III.F.3	5	4	5	4	5	4	3		4.29
Law enforcement presence	III.F.4	5	4	5	4	5	4	4		4.43
Resource Protection Average Score										4.29
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	4	4	4	4	5	4	4		4.14
Discussion of Potential Surplus Land Determination	III.G.3	5	4	4	4	4	1	4		3.71
Surplus Lands Identified?	III.G.4	5	4	4	4	4	5	4		4.29
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Parking	IV.1.b	4	5	5	4	5	4	4		4.43
Environmental Education & Outreach										
Wildlife	IV.2.a	5	3	4	4	5	4	2		3.86
Invasive Species	IV.2.b	5	3	3	4	4	4	2		3.57
Habitat Management Activities	IV.2.c	5		3	4	4	4	3		3.83
Interpretive facilities and signs	IV.3	5	4	4	4	4	5	3		4.14
Recreational Opportunities	IV.4	5	4	5	4	5	5	4		4.57
Management of Visitor Impacts	IV.5	4	4	5	4	4	4	3		4.00
Public Access & Education Average Score										4.06

Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Hiking	VI.A.1	5	5	5	5	5	5	4		4.86
Nature Study	VI.A.2	4	5	5	5	5	5	4		4.71
Wildlife Photography	VI.A.3	4	5	4	5	5	5	4		4.57
Proposed Uses										
Equestrian Trail	VI.B.1	5	5	4	5	5	5	3		4.57
Primitive Camping	VI.B.2	5	5	4	5	5	5	3		4.57

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing
Vote

Insufficient
Information

See
Appendix A
for detail

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

Exhibit T

Compliance with Local Comprehensive Plan
(Requested of county after MPAG; Placeholder until letter
received from County)

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

February 20, 2023

Marion County Planning and Zoning
2710 East Silver Springs Boulevard
Ocala, Florida 34470
(352) 438-2600
GrowthServices@marionfl.org

To Whom It May Concern:

Greeting from the Florida Forest Service! Attached is a draft copy of the Ten-Year Land Management Plan and Exhibits for Indian Lake State Forest, prepared in accordance with Chapter 253.034, Florida Statutes. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Marion County's Comprehensive Plan.

Please address all correspondence concerning the Management Plan on official letterhead to the above mailing address or via email. I can be reached by telephone at (850) 681-5890 or by email at Brian.Camposano@FDACS.gov if you have any questions.

Thank you for assisting us in managing Indian Lake State Forest resources through a stewardship ethic to ensure they are available for future generations.

Sincerely,

Brian Camposano
Assistant Chief, Forest Management Bureau
Florida Forest Service

Exhibit U

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Public Hearing
Indian Lake State Forest
10-Year Land Management Plan

January 25, 2023

10:30 A.M.

Meeting Minutes

MPAG Members Present:

- | | |
|-----------------|---|
| • Rick Dolan | Waccasassa Forestry Center (WaFC) Manager, Florida Forest Service (FFS) |
| • Amy Copeland | St. Johns River Water Management District (Representing Jeremy Olson) |
| • Leon Gary | Local Property Owner |
| • Pat Jacobs | Local Property Owner |
| • Jim Couillard | Marion County Elected Official (Representing Commissioner Carl Zalak III) |
| • Ann Bishop | Marion County Soil & Water Conservation District |

MPAG Members Not Present:

- | | |
|----------------|---|
| • Jeremy Olson | St. Johns River Water Management District |
| • Lauren Akins | Florida Fish and Wildlife Conservation Commission |
| • Tom Kay | Alachua Conservation Trust |

FFS Staff:

- | | |
|----------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Stephen Montgomery | WAFC Forestry Resource Administrator |
| • Justin Kilcrease | WAFC Forester |
| • Greg Barton | Senior Forester |
| • Charlie Pedersen | District Biologist |

Guests:

- None

Public Meeting Start Time: 10:30 A.M.

- Land Planning Coordinator, Alan Davis (FFS) opened the meeting by introducing himself and explained the purpose and statutory framework for the Indian Lake State Forest 10-Year Land Management Plan process. He explained that the Plan is not an annual work plan or detailed operational plan but provides general and conceptual guidance for management of Indian Lake State Forest (ILSF) for the next 10-year period.
- Mr. Davis confirmed compliance with the Florida Sunshine Law advising MPAG members to not discuss the draft outside of the public meetings. He stated that the meetings are open to the public, recorded, and minutes taken.
- Mr. Davis stated that both MPAG meetings are open to the public and proper notice was given. The meetings were advertised in the Ocala Star Banner on January 9, 2023; Florida Administrative Register, FFS webpage, as well as posted at the kiosks in the WaFC District. The meetings were announced at the Marion County Board of County Commissioners meeting on January 17, 2023. He noted that the draft plan goes through various approvals before and after the MPAG meetings but that the FFS Director is granted final authority on changes to the draft

plan. He described the day's two meetings: The first meeting is informational and provides opportunity for public comment; the 1:00 p.m. Workshop meeting provides opportunity for the MPAG members to discuss the public input and to share their personal comments on the draft plan. The public is welcome to attend the Workshop, but participation is limited to MPAG members.

- Mr. Davis introduced Brian Camposano (FFS) who explained the webinar features and how to share comments.
- Mr. Davis then requested MPAG Member introductions and attendance was taken.
- Mr. Davis asked the advisory group to elect an MPAG chairperson. Rick Dolan was elected to serve as chairperson.
- Mr. Davis reiterated the purpose of this meeting is to receive public input which would be later discussed in the Workshop. He acknowledged the in-person location and asked the FFS administrators to apprise of any persons attending. Greg Barton stated that no attendees were present.
- Mr. Davis then introduced Forester Justin Kilcrease who presented a PowerPoint presentation of the ILSF 10-Year Plan.
- Mr. Davis asked if there were any clarifying questions regarding the presentation. No comments were raised.
- Mr. Davis rechecked to see if there were any members of the public who had shown up to the in-person location. There were none.
- Mr. Davis asked MPAG Member Ann Bishop to introduce herself, who joined after introductions were completed. Mr. Davis also checked on MPAG Member Leon Gary, who was on the meeting but was unable to speak with MPAG staff. He was still unable to speak to the group.
- Mr. Davis asked if there are any further questions.
- Mr. Davis then thanked everyone for participating and adjourned the public hearing portion of the meetings.

Public Meeting End Time: 11:08 A.M.

Management Plan Advisory Group Workshop Meeting
Indian Lake Island State Forest
10-Year Land Management Plan

January 25, 2023

1:00 P.M.

Meeting Minutes

MPAG Members Present:

- | | |
|-----------------|---|
| • Rick Dolan | Waccasassa Forestry Center (WaFC) Manager, Florida Forest Service (FFS) |
| • Amy Copeland | St. Johns River Water Management District (Representing Jeremy Olson) |
| • Ann Bishop | Marion County Soil & Water Conservation District |
| • Leon Gary | Local Property Owner |
| • Pat Jacobs | Local Property Owner |
| • Jim Couillard | Marion County Elected Official (Representing Commissioner Carl Zalak III) |

MPAG Members Not Present:

- | | |
|----------------|---|
| • Jeremy Olson | St. Johns River Water Management District |
| • Tom Kay | Alachua Conservation Trust |
| • Lauren Akins | Florida Fish and Wildlife Conservation Commission |

FFS Staff:

- | | |
|----------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Stephen Montgomery | WAFC Forestry Resource Administrator |
| • Justin Kilcrease | WAFC Forester |
| • Greg Barton | Senior Forester |

Guests:

- None

Workshop Meeting Start Time: 1:00 P.M.

- Land Planning Coordinator, Alan Davis introduced himself and opened the ILSF MPAG Workshop by conducting an MPAG member sound check. He reminded the MPAG members of the Florida Sunshine law and that the purpose of the workshop is to review and discuss the draft and that any edits made to the draft would be presented to the FFS Director for approval. He noted that minutes will be recorded and emailed to the MPAG members and will be approved via negative response review. MPAG member appointment will terminate when the final draft is submitted to the Acquisition Restoration Council. Forestry Resource Administrator Stephen Montgomery was available to make proposed changes to the draft during the page-by-page review.
- Mr. Davis asked if any MPAG members had comments regarding the public hearing conducted earlier. None followed. No attendees were reported at the in-person venue. However, MPAG Member Leon Gary joined the call from the in-person location to ensure he could communicate with the group. There were also no written comments prior to the meeting.
- Mr. Davis conducted the page by page review with no comments or change proposed by MPAG members.

- Mr. Davis then asked the group to confirm they had no changes or suggestions. No one responded.
- He then asked each MPAG member to comment on the draft plan.
- Mr. Gary asked about what the policy is going to be on fencing of the property, as he was in favor of having it fenced.
- Mr. Camposano asked for clarification and then explained that the FFS does not typically fence off the entire policy, as the forest is open to the public. Specific features or hazards can be fenced on a case by case basis. Mr. Dolan concurred.
- Ms. Jacobs had concerns about acquisitions – specifically what pieces of property north of the forest were for sale or could be acquired as part of the forest.
- Mr. Davis briefly explained the Florida Forever acquisition process and informed Ms. Jacobs that at this time, he was not aware of any properties for sale in the optimum management boundary with a willing seller. He also made the point to state that we are always open to acquisitions that make sense for the state forests as parcels come up for sale.
- Mr. Davis noted that the draft will be submitted to the Acquisition and Restoration Council for review. Consideration by the Council will likely occur at the June 2023 public meeting.
- Mr. Davis thanked everyone for their time and participation and adjourned the meeting.

Workshop Meeting End Time: 1:21 P.M.

Exhibit V

State Forest Summary Budget

	INDIAN LAKE STATE FOREST MGT. ONLY 21-22 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 6,881	26.30%	\$ 22,595.44
Exotic Species Control	\$ 543	3.34%	\$ 2,870.50
Prescribed Burning	\$ 3,212	3.74%	\$ 3,212.46
Cultural Resources Management	\$ 22	0.13%	\$ 114.27
Timber Management	\$ 1,459	8.97%	\$ 7,709.38
Hydrological Management	\$ 114	0.70%	\$ 604.86
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 1,530	9.41%	\$ 8,083.98
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
Other Activities Also Include:	\$ -		\$ -
Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests			
			\$ -
Administration	\$ 1,089	6.70%	\$ 5,754.75
Central Office Headquarters	\$ 1,089	6.70%	\$ 5,754.75
District/Regions	\$ -		\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 5,515	33.91%	\$ 29,136.34
Land Management Planning	\$ 315	1.94%	\$ 1,666.80
Land Management Reviews	\$ 30	0.19%	\$ 159.81
Training/Staff Development	\$ 1,384	8.51%	\$ 7,314.16
Vehicle Purchase	\$ 65	0.40%	\$ 345.39
Vehicle Operations and Maintenance	\$ 2,763	16.99%	\$ 14,599.10
	\$ -		\$ -
OTHER SUPPORT	\$ 956	5.88%	\$ 5,051.09
State Forest Land Acquisition Support			\$ -
Other Support Activities Also Include:	\$ -		\$ -
Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Leases, Lease Amendments, Easements and Other Various Activities	\$ -		\$ -
			\$ -
Capital Improvements	\$ 3,349	20.59%	\$ 17,692.99
New Facility Construction	\$ 701	4.31%	\$ 3,702.18
Facility Maintenance	\$ 2,648	16.28%	\$ 13,990.81
			\$ -
Visitor Services/Recreation	\$ 2,033	12.50%	\$ 10,739.69
Information/Education	\$ 428	2.63%	\$ 2,263.07
Operations	\$ 1,604	9.87%	\$ 8,476.62
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 16,261.35	100.00%	\$85,917.50

Exhibit W

Arthropod Control Plan Marion County, Florida

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Vision: To be the Healthiest State in the Nation

Ron DeSantis
Governor

Scott A. Rivkees, MD
State Surgeon General

July 21st, 2021

Justin Kilcrease
Florida Forest Service
State Lands Forester
Indian Lake State Forest

Dear Mr. Kilcrease:

To the best of my knowledge, Marion County has never had a nuisance mosquito spraying program. Therefore, I can say with some certainty that no mosquito control has been attempted in Indian Lake State Forest and none is being proposed in the future. Therefore, no Arthropod Control Plan (ACP) is likely to exist or would be necessary.

Sincerely,

A handwritten signature in blue ink, appearing to read "Daniel Dooley".

Daniel Dooley
Environmental Administrator
Department of Health in Marion County

**Florida Department of Health
in Marion County**
1801 SE 32nd Avenue, Ocala, Florida 34471-5532
PHONE: 352/629-0137 • FAX 352/694-1613
Marion.FloridaHealth.gov

Accredited Health Department
Public Health Accreditation Board

Exhibit X

Heather Island / Ocklawaha River
Florida Forever Project

2021 Florida Forever Five-Year Plan

Heather Island/Ocklawaha River

Summary of Recommendations and Status
as of
December 2020



Division of State Lands
Florida Department of Environmental Protection



Heather Island/Ocklawaha River

Partnerships & Regional Incentives Project
Marion

Project-at-a-Glance

Year Added to Priority List	2002
Project Acres	19,953
Acquired Acres	6,290
Cost of Acquired Acres	\$1,165,000
Remaining Project Acres	13,663
2019 Assessed Value of Remaining Acres	\$35,712,575

Purpose for State Acquisition

The Heather Island/Ocklawaha River project offers important ecological benefits. Foremost among those benefits are links with existing public conservation lands, corridors for wildlife dispersal, preservation of habitat for rare species, corridors for wildlife dispersal and floodplain protection. Given its diversity of wildlife species, quality of plant communities, and strategic location, this project has substantial conservation attributes. This project may also help complete the Florida National Scenic Trail, a statewide non-motorized trail that crosses a number of Florida Forever project sites. The trail is a congressionally designated national scenic trail.

Manager(s)

The Fish and Wildlife Conservation Commission (FWC) is the lead manager for most of the southern two parcels: Marshall Swamp and Cow Hammock, approximately 5,200 acres. The remaining parcels, approximately 12,700 acres, will be managed by the Division of Recreation and Parks (DRP) (portions between Sharpes Ferry Road and the Silver River) and the Florida Forest Service/FFS.



General Description

The Heather Island/Ocklawaha River project consists of approximately 19,920 (GIS) acres in Marion County. The project area consists of a mosaic of upland and wetland communities with the majority being forested wetlands. Several conservation areas including the Ocala National Forest and the Cross- Florida Greenway Recreation and Conservation Areas border the project. The project will protect and restore the floodplain and the adjacent upland forests along the Ocklawaha River. The project area provides suitable habitat for the black bear and the rare plant pink root. The Heather Island/ Ocklawaha River project was previously on the CARL acquisition list but was removed due to an impasse reached with unwilling sellers in 2000. Recently the landowners have expressed an interest in selling to the state and/or the St. Johns Water Management District (SJRWMD). To date the SJRWMD has acquired approximately 4,465 acres within the original CARL project boundaries.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Gopher tortoise	G3/S3
Florida black bear	G5T4/S4
pinkroot	G2Q/S2

3 rare species are associated with the project

Public Use

The Heather Island/Ocklawaha River project can accommodate a diversity of resource-based recreation opportunities, such as hiking, environmental resource appreciation and education, picnicking, camping, horseback riding and bicycling. Depending on management emphasis the property will also support hunting. The project abuts the Ocklawaha River or public lands adjacent to the river that could accommodate shoreline freshwater fishing and or boat launching sites.

Acquisition Planning

2002

On December 5, 2002, the Acquisition and Restoration Council (ARC) added the Heather Island/Ocklawaha River project to Group A of the Florida Forever (FF) 2003 Priority list. This fee-simple project, sponsored by Office and Greenway Trails (OGT) and the St. Johns River Water Management District (SJRWMD), consisted of approximately 19,949 GIS acres, two landowners, the Rayonier Timberland Corp. and the Alawest-AI LLC, and a 2001 taxable value of



\$32,234,776. The essential parcels were identified as the Rayonier ownership. These should be mapped and appraised first.

2005

On January 25, 2005, ARC moved this project to Group B of the 2005 Florida Forever Priority list.

2011

On December 9, 2011, ARC placed this project in the Partnerships and Regional Initiatives category.

On January 11, 2011, about 400 acres (TNC/Rayonier Forest Resources LP--\$1,165,000) were purchased by DRP to be managed by DRP as the Silver River Addition.

Coordination

This project will be acquired in partnership with SJRWMD, with a mixture of state and WMD funding. Contribution percentages have not been determined.

Management Policy Statement

Priority will be given to conserving and protecting environmentally unique native habitats and threatened and endangered species. Management programs will be designed to conserve, protect, manage and/or restore important ecosystems, landscapes, forests and water resources. The tract will also be managed to provide opportunities for biking, camping, canoeing, environmental and cultural resource education, fishing, hiking, hunting, and wildlife viewing.

The connection and proximity of this project to other conservation lands, as well as its landscape diversity and high-quality wetlands, provide important habitats for wildlife populations and a unique environment for outdoor recreation in Florida. Since the principal purposes of the proposal are to protect habitat for wildlife, management goals will be oriented to conserving and protecting these species and carefully managing public access.

Management Prospectus

Qualifications for state designation

Based upon a review of the Florida Forever Act, this project meets the Goals and Measures, as outlined in Statute to increase nature-based recreation, to enhance the coordination and completion of land acquisition projects, to increase the protection of Florida's biodiversity at



the species, natural community, and landscape levels, to protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state, and to increase the amount of forestland available for sustainable management of natural resources.

Manager

The high wildlife resource value of this Heather Island/Ocklawaha River proposal indicates that the FWC is the suitable lead manager for most of the southern two parcels (approximately 5,200 acres in Marshall Swamp and Cow Hammock), with the remaining parcels (approximately 12,700 acres between Sharpes Ferry Road and the Silver River) to be managed DRP and FFS.

Conditions affecting intensity of management

Some portions of the project include lands that are low-need tracts, requiring basic resource management including the frequent use of prescribed fire where appropriate. However, since more than 53 percent of the proposal area has been disturbed for silviculture or other purposes, significant restoration activities are contemplated for some of the acreage on which fee title is acquired. FWC will use restoration techniques recommended by specialists in the field of ecological restoration, including the most recent advancements identified by on-going research and lessons learned on the ground through adaptive management. The primary management needed to preserve the less disturbed natural communities will involve introducing prescribed fire and carefully managing public use. Biotic surveys will be a priority, since many rare or listed species are expected to be present.

Timetable for implementing management and provisions for security and protection of infrastructure

During the first year after acquisition, emphasis will be on site security, posting boundaries, public access, fire management, resource inventory and removing refuse. A conceptual management plan will be developed by the FWC describing management goals and specific objectives to implement future resource management. Long-range plans will emphasize restoring and maintaining ecosystem functions; restoring native wildlife populations and wildlife diversity, including protecting and managing threatened and endangered species; and management for sustainable public use of game wildlife populations balanced with other wildlife oriented recreational activities. Multiple use principles will be practiced where compatible with resource management goals and acquisition.

Revenue-generating potential

The harvest and sale of forest products should continue to provide revenues under State management, where silvicultural activities are consistent with wildlife habitat management



objectives. The FWC, however, will seek to expand and enhance the revenue-generating potential of the property improving wildlife diversity and providing a broad spectrum of resource-based recreational opportunities.

Additional revenue will be generated from sales of hunting licenses, fishing licenses, wildlife management area stamps and other special hunting stamps. Some revenues might be realized in the future from recreational user fees and ecotourism and wildlife viewing activities. The Heather Island/Ocklawaha River proposal, when acquired by the State, will require one FTE position to manage the project area. However, if certain activities are privatized, it would reduce the number of FTEs required. Funding for natural resource management and public use administration would come from the CARL Trust Fund. See the anticipated costs below. Revenue sources would likely include public use fees and timber harvests.

Cooperators in management activities

The FWC should cooperate with other state and local governmental agencies, including the Department of Environmental Protection (DEP), FFS and the SJRWMD in managing the area.

Management Cost Summary

<u>FWC</u>	<u>Startup</u>	<u>Recurring</u>
Resource Management	\$271,345	not provided
Administration	\$75,494	not provided
Support	\$149,080	not provided
Capital Improvements	\$1,130,236	not provided
Visitor Services/Recreation	\$2,361	not provided
Law Enforcement	\$13,874	not provided
TOTAL	\$1,642,389	not provided

Source: Management Prospectus as originally submitted

Management Cost Summary

<u>FFS</u>	<u>Startup</u>
Salary (2FTE)	\$80,870
Expense	\$117,500
OCO	\$225,600
TOTAL	\$423,970

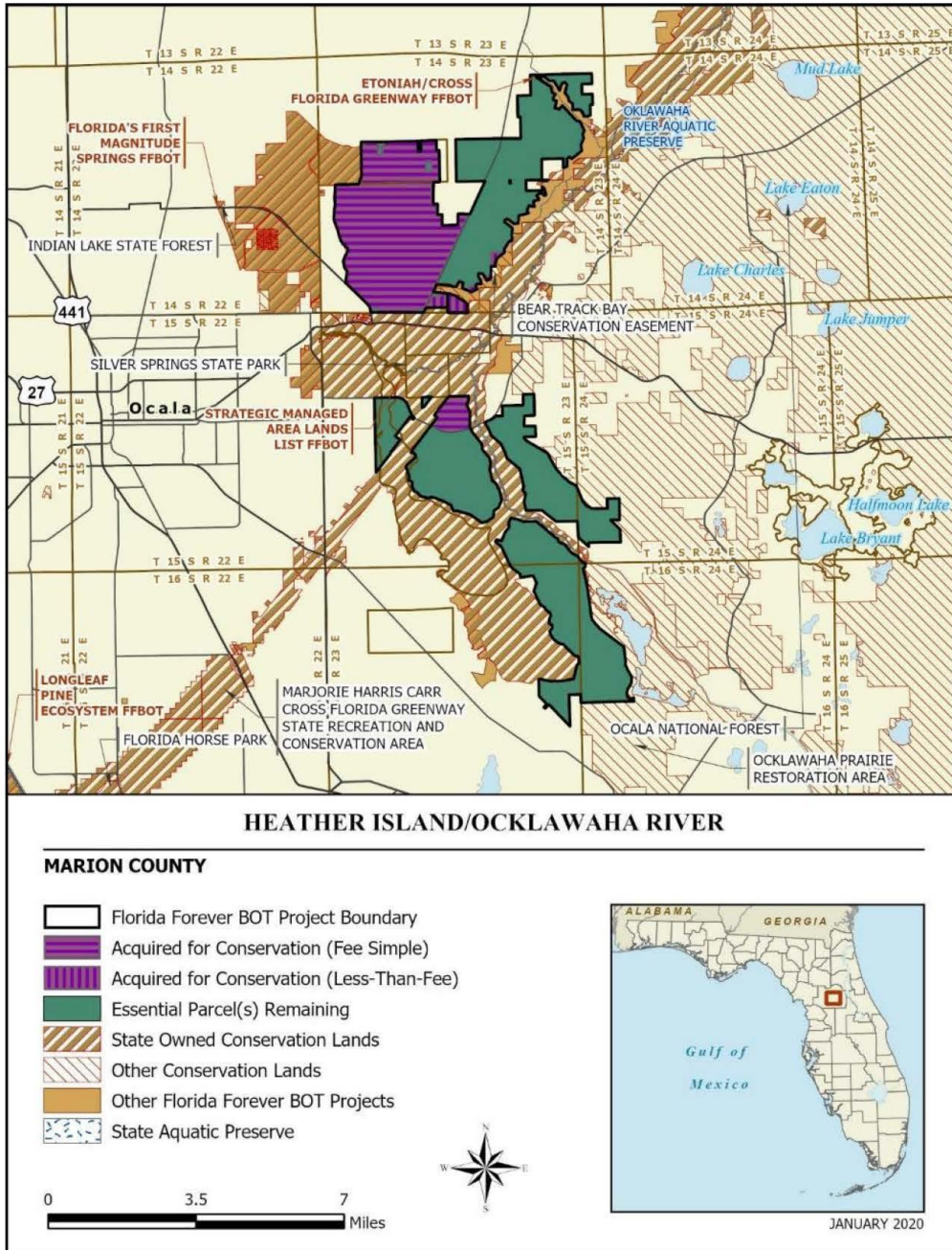
Source: Management Prospectus as originally submitted



Management Cost Summary

<u>DRP</u>	<u>Startup</u>
Expense	\$0
FCO	\$268,000
TOTAL	\$268,000

Source: Management Prospectus as originally submitted



Map 1 : FNAI, January 2021