

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 10 (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 11 (II.A.4)
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	Page 12 (II.B.2)
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	Page 10 (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 17 (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 16 (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 17 (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 (I.A); Page 12 (II.B.1)
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	Page 10 (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 12 (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 4 (I.B); Page 13 (II.B.4); Page 17 (II.D.6); Page 18 (II.E.); Page 20 (III); Page 21 (IV); Page 32 (V); Page 39 (VI); Page 47 (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 16 (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 18 (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 20 (III.C-D); Exhibit G
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 19 (II.E.6); Page 20 (III.C); Page 26 (IV.C.2-3); Page 47 (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 13 (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 17 (II.D.5); Exhibit S
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 5 (I.C Goal 7); Page 21 (IV); Exhibits K & L
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 13 (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 43 (VI.C)
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	Page 16 (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 19 (II.E.4); Exhibits S, T, U, X
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 19 (II.E.4); Exhibit T
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Exhibit T
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 19 (II.E.4); Exhibit R
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Exhibit R
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 R

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 22 (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 24 (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 30 (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 30 (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 30 (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 28 (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 26 (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 5 (I.C); Page 20 (III.C,D); Page 21 (IV); Page 39 (VI.A-B); Page 47 (VII)
42	Habitat Restoration and Improvement	259.032 & 253.034	Page 21 (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 5 (I.C); Page 47 (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 5 (I.C)
42-C.	The associated measurable objectives to achieve the goals.		Page 5 (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 5 (I.C); Page 39 (VI); Page 47 (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 15 (II.C.4), Exhibit U
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 10 (II.A.2); Page 11 (II.A.4); Page 14 (II.C); Page 47 (VII); Exhibits E, J, M, Q, S
44	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034 & 259.032 ↓	Page 39 (VI); Exhibit O
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 5 (I.C. Goal 1); Page 39 (VI); Page 47 (VII)
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 1)
44-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 1)
44-D.	Related activities (see requirement for #42-D).		Page 39 (VI); Page 47 (VII)
44-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4), Exhibit U
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034	Page 24 (IV.C)
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C Goal 4); Page 24 (IV.C.1); Page 47 (VII)
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C Goal 4); Page 24 (IV.C.1); Page 47 (VII)
45-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C Goal 4)

45-D.	Related activities (see requirement for #42-D).		Page 24 (IV.C.1); Page 47 (VII)
45-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4), Exhibit U
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 29 (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 29 (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 44 (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 V
48	Exotic and invasive species maintenance and control	259.032 & 253.034	Page 44 (VI.D)
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C Goal 5); Exhibit O
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C Goal 5)
48-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C Goal 5)
48-D.	Related activities (see requirement for #42-D).		Page 44 (VI.D,E); Page 47 (VII)
48-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4), Exhibit U

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 14 (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 22 (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 23 (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 22 (IV.B); Page 47 (VII)
53	Hydrological Preservation and Restoration	259.032 & 253.034	Page 22 (IV.B)
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 9 (I.C. Goal 7); Page 22 (IV.B)
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 9 (I.C. Goal 7)
53-C.	Measurable objectives (see requirement for #42-C).		Page 9 (I.C. Goal 7)
53-D.	Related activities (see requirement for #42-D).		Page 9 (I.C. Goal 7); Page 22 (IV.B)

53-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4); Exhibit U
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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 20 (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 20 (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 20 (III.C,D); Exhibit H
57	Cultural and Historical Resources	259.032 & 253.034	Page 20 (III)
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C. Goal 6)
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C. Goal 6)
57-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C. Goal 6)
57-D.	Related activities (see requirement for #42-D).		Page 20 (III.C,D)
57-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4); Exhibit U

**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 14 (II.C); Exhibit D
59	Capital Facilities and Infrastructure	259.032 & 253.034	Page 14 (II.C.)
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 9 (I.C. Goal 8); Page 14 (II.C.)
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 9 (I.C. Goal 8); Page 14 (II.C.)
59-C.	Measurable objectives (see requirement for #42-C).		Page 9 (I.C. Goal 8); Page 14 (II.C.)
59-D.	Related activities (see requirement for #42-D).		Page 14 (II.C); Page 32 (V)
59-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4); Exhibit U
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	Page 32 (V); Exhibit D
61	Public Access and Recreational Opportunities	259.032 & 253.034	Page 32 (V)
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 6 (I.C. Goal 2)
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 6 (I.C. Goal 2)
61-C.	Measurable objectives (see requirement for #42-C).		Page 6 (I.C. Goal 2)

61-D.	Related activities (see requirement for #42-D).		Page 13 (II.B.4); Page 19 (II.E.5,6); Exhibits A, B, C, D
61-E.	Budgets (see requirement for #42-E).		Page 15 (II.C.4); Exhibit U

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 4 (I.B); Exhibit A
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	Page 5 (I.C.); Page 47 (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 15 (II.C.4); Exhibit U
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 15 (II.C.4); Exhibit U
68	A statement of gross income generated, net income and expenses.	18-2.018	Page 15 (II.C.4); Exhibit U

*** = 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
OKALOACOOCHEE SLOUGH STATE FOREST
HENDRY AND COLLIER COUNTIES



Okaloacoochee Slough State Forest

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

APPROVED ON
[TBD], 2025

TEN-YEAR LAND MANAGEMENT PLAN
FOR THE
OKALOACOOCHEE SLOUGH STATE FOREST



Approved by:

Richard Dolan, Director
Florida Forest Service

Date

James Roberts, Chief
Forest Management Bureau

Date

**TEN-YEAR LAND MANAGEMENT PLAN
OKALOACOOCHEE SLOUGH STATE FOREST
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**TEN-YEAR LAND MANAGEMENT PLAN
OKALOACOOCHEE SLOUGH STATE FOREST
EXHIBITS**

Ten-Year Management Accomplishment Summary	Exhibit A
Boundary and Road Map	Exhibit B
Optimal Management Boundary Map	Exhibit C
Facilities, Recreation, and Improvements Map	Exhibit D
Tract and Acreage Map.....	Exhibit E
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DHR Report on Archaeological and Cultural Sites	Exhibit G
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Current FNAI Natural Communities Map	Exhibit P
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Compliance with Local Comprehensive Plan(s)	Exhibit S
State Forest Management Plan Advisory Group Summary	Exhibit T
State Forest Summary Budget	Exhibit U
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Ground Water Monitoring Wells Map.....	Exhibit W
Florida Forever Projects.....	Exhibit X

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service
COMMON NAME: Okaloacoochee Slough State Forest (OSSF)
LOCATION: Hendry and Collier Counties
ACREAGE TOTAL: 32,370.04 acres

Historic Natural Communities	Approximate Acreage
Slough Marsh	16,998
Mesic Flatwoods	7,111
Wet Flatwoods	2,134
Depression Marsh	1,718
Basin Marsh	1,464

Historic Natural Communities	Approximate Acreage
Wet Prairie	1,399
Mesic Hammock	1,191
Strand Swamp	229
Dome Swamp	102

TIITF LEASE AGREEMENT NUMBERS: 4246 and 4247

USE: Single ☐ Multiple ☒

MANAGEMENT AGENCY

Florida DACS, Florida Forest Service
Florida Fish and Wildlife Conservation Commission
South Florida Water Management District
Hendry County
Collier County
Department of State, Division of Historical Resources

RESPONSIBILITY

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

DESIGNATED LAND USE: Multiple-Use State Forest
SUBLEASES: None
ENCUMBRANCES: None
TYPE OF ACQUISITION: Conservation and Recreation Lands, Preservation 2000 and Save Our Rivers Funds, and Mitigation

UNIQUE FEATURES:

ARCHAEOLOGICAL / HISTORICAL: Six (6) known sites

MANAGEMENT NEEDS: Restoration and maintenance of native ecosystems and disturbed site restoration

ACQUISITION NEEDS: 24,291 acres of Optimal Management Boundary

SURPLUS ACREAGE: None

PUBLIC INVOLVEMENT: OSSF Liaison Committee, Hendry County Commission, Collier County Commission, Management Plan Advisory Group and Public Hearing, 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 Okaloacoochee Slough State Forest (OSSF) is comprised of 32,370.04 acres located on a single, contiguous tract approximately 30 miles east of Fort Myers. Most of the acreage is located in Hendry County, with 4,900 acres located in Collier County. OSSF was purchased with Conservation and Recreation Lands (CARL), Save Our Rivers (SOR), and Preservation 2000 acquisition funds.

The Okaloacoochee Slough, the forest's namesake, is a 16,998-acre pristine slough that is oriented north-south through the forest. The natural systems of the Fakahatchee Strand and Big Cypress Preserve are dependent on the water supplied by the Okaloacoochee Slough. The Okaloacoochee Slough is one of the few places in southern Florida, but north of the Everglades, where the pre-Columbian landscape can still be observed.

Many of the natural communities located in southern Florida can be found on the forest. Eight distinct natural communities are currently identified on OSSF, with mesic flatwoods and slough marsh making up roughly 24,109 acres or approximately 75 percent of the habitat.

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 forest resources through a stewardship ethic to assure they are available for future generations.”

Management strategies for OSSF 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, and that is consistent with the purpose for which the forest was acquired. Multiple-use management for OSSF 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 recreation 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, Florida Statutes (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 OSSF for the next ten-year period and outlines the major concepts that will guide management activities on the forest. Though not part of this plan, each state forest also updates and maintains five-year

action plans for silviculture, ecology, prescribed fire, roads and bridges, boundary maintenance, and recreation. These internal plans are updated annually with the current year serving as the annual operations plan for the forest.

B. Past Accomplishments

Data regarding past management activities and public use on OSSF have been compiled monthly and are available from the forest manager. A table has been prepared for this plan that summarizes the accomplishments made over the past ten years. See Exhibit A. The table does not attempt to account for all activities on the forest but summarizes major activities. It does not list the multitude of daily activities and public interactions involved in managing the forest. Since the approval of the previous management plan in 2012, there have been numerous events, developments, and accomplishments. Among the most notable have been the following:

- Forest Management
 - Roller chopped 1,425 acres
 - Forestry mowed 555 acres
 - Planted 4,000 cypress trees on 10 acres (2013-14)
 - Planted 325,000 south Florida slash containerized pine trees on 525 acres (2015)
 - Conducted 535 acres of planting survival checks
 - Conducted forest inventory on 13,765 acres
 - Cruised 236 acres for an upcoming pine thinning in planted areas
 - Worked cooperatively with SFWMD to place a new rainfall weather station (2022)
 - Obtained new LIDAR data for the forest (2017)
 - Survey of hammocks for subtropical species (2010-17)
- Fire Management
 - Conducted prescribed fires on 27,130 acres
 - Suppressed 10 wildfires that impacted 285 acres
 - Maintained disc lines totaling 870.5 miles
 - Awarded 1,200-acre National Wild Turkey Federation Grant for burning (2015-2016)
 - Awarded 4,313-acre Florida's Wildlife Legacy Initiative Grant Project for fuel reduction (2016-2017)
- Road/Boundary Management
 - Graded 581 miles of roads
 - Improved 9 miles of road to an improved level of service (Sic Island, North Loop North, Keri Tower, Keri-Patterson Crossover, Wildcow Patterson Crossover)
 - Rebuilt/repaired 43.3 miles of road
 - Installed 11 culverts
 - Installed 15 low-water crossings
- Recreation Management
 - Provided recreational opportunities for 596,787 users
 - Hosted 15,860 campers at primitive campsites
 - Created a self-guided Learning Adventure on the boardwalk trail in 2020
 - Interpretive signs added to Twin Mills trail near historic saw dust pile

- Interpretive signs added to Tram Loop trail to discuss old railroad corridor
- Conducted major repairs on the boardwalk off of Sic Island Road (2016)
- Installed the planned 3.2-mile bike trail on Dog Island south
- Constructed 4 small, covered paddocks at horse trailhead
- Rebuilt 2 larger kiosks and installed 5 new kiosks at recreational areas
- Completed a 40-acre dog training area on Patterson Road
- Constructed small pavilion at Tram Loop trailhead
- Biological Research and Management
 - Supported 13 research projects on the forest
 - Supported F-Stop Foundation wildlife photography project (Ongoing)
 - Supported ongoing efforts to trap invasive pythons and manage feral hogs
- Education / Public Outreach
 - Authored 39 articles about the forest for publication
 - Conducted 40 visitor programs
- Archeological Resource Management
 - Archeological sites – conducted ongoing monitoring at 5 archeological sites
 - Created 1 new archeological interpretation sign for the old saw dust pile site

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 during the planning period will determine the degree to which these objectives can be met. Management activities on OSSF during this management period must serve to 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 recreational 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 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: Evaluate the potential for additional public access and recreation areas on OSSF that are compatible with multiple-use management. Recreation opportunities will fall under the scope of multi-use management in accordance with watershed protection, conservation, and ecosystem restoration; and as detailed in the purpose for acquisition. (Short-term objective)

Performance Measures:

- List of viable access points and visitor opportunities for consideration
- Number of interpretive display materials, programs, and outside vendor partnerships to promote forest recreation and education.

Objective 3: Continue to safely integrate human use into OSSF, 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 4: 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 recreation users, etc.), environmental group representatives, and other public / private entities. (Ongoing objective)

Performance Measures:

- Liaison Committee remains organized
- Annual meetings continue

Objective 5: 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/email on agreed-upon hunting issues and opportunities
- Updated rules posted and WMA brochures available online at MyFWC.com
- Provide input and attend FWC public hunt meetings for annual hunting management of the WMA
- Assist FWC in managing access and recreation facilities for hunters

Objective 7: 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

Objective 8: Develop additional community partnerships and outreach to strengthen land management and public use of OSSF (Ongoing objective)

Performance Measures:

- Meet with key user groups at least twice a year to implement volunteer upkeep of forest resources and amenities
- Hold annual public awareness and education events on the forest
- Hold volunteer workdays on the forest

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

Objective 1: The OSSF currently contains approximately 31,000 acres of fire-dependent communities. OSSF 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 three (3) to ten (10) years for most fire-dependent communities, FFS will attempt to conduct prescribed burns on an average of approximately 3,700 to 7,500 acres per year. Currently, FFS staff estimates 26,473 acres at OSSF 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 OSSF 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 where practical or heavily impacted from historical land use. (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 OSSF, 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 updated for OSSF

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: Invasive Species Management and Control**

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

Performance Measures:

- Total number of acres identified and successfully treated
- Annual updates of the Five-Year Ecological Plan completed

➤ **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 annually and send updates to the DHR Florida Master Site File as needed. (Ongoing objective)

Performance Measures:

- 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

Objective 4: Create and display interpretive educational materials referencing archeological resources of the area.

Performance Measure: Number of educational items created

➤ **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, firelines, 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: OSSF staff, along with help from volunteers and / or user groups, will continue maintenance of the visitor center, kiosks, picnic pavilions and areas, primitive camping sites, parking areas, trailheads, trails, and roads. (Ongoing objective)

Performance Measure: The number of existing facilities, gates, recreation 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
- Examine road network for access/road relocation needs on an annual basis

Objective 3: Continue to implement the Five-Year Boundary Survey and Maintenance Management Plan and update annually. Approximately 20 percent of the forest boundary will be remarked annually as necessary, which includes harrowing (where feasible), 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 Okaloacoochee Slough State Forest (OSSF).

2. Legal Description and Acreage

Okaloacoochee Slough State Forest is comprised of a single tract. All major parcels acquired are displayed and identified in Exhibit B as well as in the table below. The property is located in all or part of Sections:

Hendry County:

Sections 1, 24, 25, 36 of Township 44 South, Range 29 East; Sections 19, 20, 28, 29, and 30 through 34 of Township 44 South Range 30 East; Sections 4 through 11, Sections 14 through 23, and Sections 26 through 36 of Township 45 South Range 30 East; Sections 12, 13, 24, and 25 of Township 45 South Range 29 East; Section 31 of Township 45 South Range 31 East; and Sections 6 through 8 of Township 46 South Range 31 East.

Collier County:

Sections 1 through 5 and 10 through 12 of Township 46 South Range 30 East. See Exhibit E.

Acreage acquired by funding source is identified in Table 1.

Table 1. OSSF Acreage by Funding Source

Funding Source	Acres*
CARL / SOR	19,454.23
Preservation 2000	9,804.09
SOR	2,800.92
Mitigation	310.80

A complete legal description of lands owned by the Board of Trustees of the Internal Improvement Trust Fund (TIITF) and the South Florida Water Management District (SFWMD) is on record at the OSSF Forestry Station Office, Florida Department of Environmental Protection (DEP), 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 25 miles of the OSSF are included in Exhibit F and Table 2.

Table 2. Nearby Public Conservation Land and Easements

Tract	Managing Agency	Distance
Okaloacoochee Slough WMA	FWC	Adjacent E
Dinner Island Ranch WMA	FWC	Adjacent E
Spirit of the Wild WMA	FWC	Adjacent W

Tract	Managing Agency	Distance
Corkscrew Marsh/Lake Trafford Wetlands	SFWMD	10 miles SW
Southwest Florida Research & Education Center	UF	10 miles S
Big Cypress Seminole Indian Reservation	BIA	12 miles SW
Big Cypress National Preserve	NPS	13 miles S
Six Mile Cypress Slough Preserve	Lee County	14 miles W
Florida Panther National Wildlife Refuge	USFWS	15 miles SW
Nicodemus Slough	SFWMD	16 miles NW
Fisheating Creek WMA	FWC	18 miles N
Fakahatchee Strand State Preserve	DEP	23 miles S
Picayune Strand State Forest	FFS	25 miles SW

BIA – U.S. Bureau of Indian Affairs

DEP – Florida Department of Environmental Protection

FFS – Florida Forest Service

FWC – Florida Fish and Wildlife Conservation Commission

SFWMD – South Florida Water Management District

UF – University of Florida

USFWS – U.S. Fish and Wildlife Service

4. Property Acquisition and Land Use Considerations

Most of OSSF (22,255.15 acres) was purchased in 1996 from Atlantic Land and Improvement Company, Inc. (ALICO) by the SFWMD under an acquisition agreement with the State. This project was both a Conservation and Recreation Lands (CARL) project and SOR project. The State and SFWMD contributed an undivided one-half interest to the original purchase. As such, SFWMD was reimbursed by the BOT for half interest in 19,454.23 acres of this purchase. An additional 9,764.09 acres was acquired utilizing Preservation 2000 Inholding and Addition Program funds. All TIITF parcel acquisitions are identified in Table 3.

Table 3. Parcel Acquisition

Parcel Name	Lease Date	TIITF Lease No.	County	Acres
ALICO*	7/14/2000	4247	Collier	3,635.06
ALICO*	7/14/2000	4247	Hendry	15,819.17
ALICO	3/4/2000	4246	Hendry	8,719.09
ALICO	3/4/2000	4246	Collier	1,065.00
ALICO**	7/16/2002	C-1368	Hendry	2,800.92
ALICO	11/5/2008	4246	Collier	20.00
Twelve Mile Slough Panther Mitigation	7/24/2013	4246	Hendry	310.80

* Joint lease held by TIITF and SFWMD

** Lease solely held by SFWMD

B. Management Authority, Purpose, and Constraints

1. Purpose for Acquisition / Management Prospectus

The OSSF was acquired as part of the SOR and CARL programs. The goals of the SOR program include: “Protecting areas that are critical to maintaining southern Florida’s ecological integrity, and acquiring lands that are necessary for water management, water supply, and the conservation and protection of water resources.”

The primary goals of the CARL program include:

- Conservation and protection of environmentally unique and irreplaceable lands;
- Conservation and protection of significant habitat for native species or endangered and threatened species;
- Conservation, protection, management and restoration of important ecosystems, landscapes, and forests, in order to enhance or protect significant surface water, recreation, timber, fish or wildlife resources;
- Providing areas for nature-based recreation; and
- Preserving archaeological or historical sites.

2. Degree of Title Interest Held by the Board

The South Florida Water Management District (SFWMD) purchased 22,255.15 acres from ALICO and took title to the property under a deed dated December 3, 1996, and an additional 20 acres were acquired from ALICO for offices / housing; which was amended into Lease Agreement 4246 on November 5, 2008. The Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF) subsequently reimbursed the SFWMD for half of the acquisition costs for 19,454.23 acres of the above-mentioned area. The TIITF now hold joint, fee simple title (50% undivided interest) in this area under a deed dated February 2, 1999. This property is assigned to the FFS for management under Lease Agreement 4247.

The SFWMD retained full, fee simple ownership of 2,800.92 acres of the original ALICO purchase. This property was previously managed as part of the OSSF under a Memorandum of Understanding but was assigned to the FFS under SFWMD Lease Number C-1368, dated July 16, 2002. Copies of this document are on file at FFS and SFWMD headquarters.

The Twelve Mile Slough – Panther Mitigation parcel contains 310.80 acres in Hendry County and was acquired on July 24, 2013. This property was assigned to FFS for management under Lease Agreement 4246.

The TIITF also holds fee simple title to 9,784.09 acres that were purchased by the FFS Inholding and Additions Program using Preservation 2000 funds. This property is assigned to the FFS for management under Lease Agreement 4246.

3. Designated Single or Multiple-Use Management

OSSF 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 TIITF Management Lease Agreement numbers 4246 and 4247.

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 the forest. 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 OSSF provide for multiple-use 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 the forest. Current and potential revenue producing activities for the OSSF include, but are not limited to:

- *Timber Harvests* – Timber harvests on OSSF will be conducted to improve forest health, promote wildlife habitat, restore plant communities, and provide additional benefits.
- *Whole Tree Sabal Palm Harvests* – this can be considered for future sales given the growth of sabal palms on the forest and the demand in the area.
- *Native Seed Harvests* – a nearly 200-acre wet flatwoods site is maintained through frequent prescribed burning and is offered annually to local ecological companies to harvest native plant seeds for restoration purposes.
- *Cattle Grazing Leases* – Currently there are no FFS cattle leases on OSSF.
- *Recreation Fees* – Fees are currently collected for all day-use areas, all campgrounds, annual passes, and vendor / special use permits.
- *Apiary Leases* – There is currently one (1) apiary lease on OSSF.
- *Miscellaneous Forest Product Sales* – Other miscellaneous forest product sales, including but not limited to, heart of palm, palm fronds and berries, pine cones, pine straw and firewood, may be considered.

5. Conformation to State Lands Management Plan

Management of the forest 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

FFS makes every effort to comply with applicable statutes, rules, and ordinances when managing the forest. 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).

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

7. Aquatic Preserve / Area of Critical State Concern

Within Collier County, sections 10, 11 and 12, of Township 46 South, Range 30 East are within the Big Cypress Area of Critical State Concern, Chapter 28-25.001 FAC.

C. Capital Facilities and Infrastructure

1. Property Boundaries Establishment and Preservation

OSSF boundaries, 41 miles in total, are managed by state forest personnel in accordance with the guidelines of the State Forest Handbook. There are 30 gates throughout OSSF 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

Throughout the forest, there are existing recreation improvements, which are:

- Four (4) primitive campgrounds:
 - Wildcow Island Primitive Group Camp with 2 sites
 - Panther Pond Campground with fifteen (15) sites
 - Overflow Camp with six (6) primitive RV camp sites
 - Hunt Camp with five (5) primitive RV camp sites and one (1) tent camp site
- There are six (6) trailheads:
 - Twin Mills Trail Trailhead (2.3-mile trail)
 - Roney Island Trailhead (1.9-mile trail)
 - Mountain Bike Trailhead (3.2-mile trail)
 - Equestrian Trailhead with 4 covered horse paddocks (17-mile trail)
 - Tram Loop Trailhead (3.6-mile trail).
 - Boardwalk Trailhead (1/8th mile trail) with picnic area
- A 40-acre dog training area is located off of Patterson Road

All remaining facilities and improvements are located on the 12-acre forest headquarters site. See Exhibit D for a map of the buildings and improvements at OSSF. A review of facilities and improvements on the forest that provide infrastructure support for staff and equipment include:

Buildings / Recreation infrastructure present on the OSSF include:

- 2,500 sq ft. FFS Forest Headquarters (converted residence)
- 1,500 sq ft. residence
- 1,000 sq ft. residence
- 1,000 sq ft. residence

- 2,000 sq ft. trailer pad with 2,000 sq ft. federal excess trailer for a residence.
- 5,400 sq ft. metal pole barn for equipment storage
- (3) 100 sq ft. pump houses
- 200 sq ft. woodworking shed
- 2,400 sq ft. Quonset hut
- 2,848 sq ft. pole barn
- 2,304 sq ft. pole barn
- 864 sq ft. pole barn
- 972 sq ft. pole barn
- 210 sq. foot pole barn
- 120 sq ft. check station (operated by FWC)

In the ten-year period contemplated by this plan, FFS will consider additional structures as necessary.

3. On-Site Housing

There are three (3) residences on OSSF for Florida Forest Service personnel and two (2) trailer pads with federal excess trailers. All are equipped with septic and hooked up to a potable water system serviced by two (2) pump houses. Housing is prioritized based on FFS policy.

FFS may establish additional on-site housing (mobile / manufactured home) on OSSF if deemed necessary to alleviate security and management issues. The continued need and feasibility for OSSF 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 2023-2024 the total annual budget for OSSF was \$131,029.06. This amount includes expenses, contractual services, OPS, etc. A summary budget for OSSF is contained in Exhibit U. 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 OSSF includes: three (3) type II tractor plow/transport units, two (2) type VI engines, six (6) pickup trucks, one (1) ATV, one (1) UTV, three (3) farm tractors, one (1) front-end loader, one (1) motor grader, one (1) lawn mower, and eight (8) attachments for the farm tractors.

c. Staffing

Nine (9) individuals are assigned to OSSF: one (1) Forest Area Supervisor, two (2) Senior Forest Rangers, four (4) Forest Rangers, one (1) OPS Park Ranger – Spray Tech, and one (1) Part time OPS Park Ranger - Recreation. Other personnel from the Caloosahatchee Forestry Center are used extensively to assist with management activities at OSSF.

The Center's resource staff 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 resource staff in cooperation with the operations section of the district under the guidance of the Forestry 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.

To supplement the staff assigned to OSSF, the Recreation Forester position is responsible for recruiting interested volunteers who can bring needed experience and skills to assist with the management of the forest recreation program, as well as resource management activities.

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.

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 the forest. 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 the state forest boundaries. Although no water resource projects are being considered at this time on SFWMD-owned lands within OSSF, they should not be precluded.

2. Additional Land Needs

There are 118 parcels of land comprised of 24,291 acres adjacent to the property which should receive priority for acquisition because they would benefit the management of the property. The FFS will work with these property owners, on a willing seller basis, to acquire these parcels.

Purchasing of additional land within the optimal management boundary would facilitate restoration, protection, maintenance, and management of the resources on OSSF. These parcels would serve to enhance management of OSSF and resolve particular management issues, provide additional areas for natural resource based outdoor recreation opportunities, protect the slough from potential impact, and provide habitat for protected species. Primary examples are any parcels to the south and west providing access to the property from the abandoned railroad bed and any parcel to the west in order to protect the water quality of the slough. 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 recreation use, and GIS modeling and analysis.

The evaluation of OSSF by FFS has determined that all portions of the area are 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 OSSF is recommended for potential surplus.

4. Adjacent Conflicting Uses

State Road 29 and County Road 832 are paved roads and serve as impediments to prescribed burning. Water control structures on the north end of the forest are managed by the Barron Water Control District and regulate water flows on the forest. Management activities will be impacted by the amounts of water held back or released onto the forest during various times of the year. The rural community of Felda is located on the southwestern border of the forest and future development would require additional coordination for smoke management.

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 the forest.

5. Compliance with Local Comprehensive Plan

This plan was submitted to the Board of County Commissioners in Hendry and Collier counties for review and compliance with their local comprehensive plans. See Exhibit S.

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 OSSF 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.

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 cable where scenic considerations are desirable as well as encourage the development and 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 SFWMD. 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 Agreement numbers 4246 and 4247. Pursuant to the management lease, the lead managing agency may enter into further agreements or to subleases on any part of the forest.

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.

FWC assumes law enforcement responsibilities, enforces hunting regulations, cooperatively sets hunting season dates with FFS, and conducts other wildlife management activities with input from FFS.

The SFWMD will be consulted and involved in matters relating to water management and hydrological restoration, as appropriate.

2. Law Enforcement

Primary law enforcement responsibilities will be handled by FWC law enforcement officers. Rules governing the use of OSSF 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 OSSF. This task is shared among multiple FWC officers who also patrol and enforce laws on properties and waterways outside of OSSF.

The FDACS Office of Agricultural Law Enforcement (OALE) will assist with open burning and wildfire investigations as needed. The Hendry County and Collier County Sheriff's Offices 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 OSSF.

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 (Chapter 590.01, F.S.). The FFS also has the responsibility of authorizing prescribed burns (Chapter 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 2016 and 2021. See Exhibit R. The review team's recommendations were addressed in this plan, as appropriate.

The plan was developed with input from the OSSF Management Plan Advisory Group and was reviewed at a public hearing on November 19, 2024. A summary of the advisory group's meetings and discussions, as well as written comments received on the plan, are included in Exhibit T. The Acquisition and Restoration Council (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 OSSF. Volunteer activities may occur as one-time events or in association with recurring projects and routine maintenance. Additional volunteer recruitment will continue to assist furthering the FFS's mission focused around assisting with recreation and resource management on the forest. Organizations that currently volunteer or work with recreation activities in the county are a part of the liaison committee and serve as a good point of contact for volunteer needs and requests. The forest is located in a rural area of southwestern Florida with many of the visitors coming from out of town.

6. Friends of Florida State Forests

Friends of Florida State Forests, Inc. (FFSF) is a Direct Support Organization (DSO) 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

ALICO, Inc. acquired the property through the Atlantic Coastline Railroad. The property was originally logged for railroad crossties, and sawmills were built for lumber production. During the 1920s, Sears, a town started by John Sears' widow and two sons, operated a large modern sawmill. After a fire destroyed the mill, the town of Sears went into decline and essentially disappeared. During the same time period, ALICO, Inc. continued logging operations utilizing two portable sawmills, which were referred to as the Twin Mills. There are still remnants of the sawdust piles off of Twin Mills Road, which also serves as a forest boundary. During the mid-1930s, the property was cleared of most of its marketable timber and an extensive cattle operation was established. Additionally, limited hunting leases were sold with the understanding that ALICO, Inc. could exclude access if roads became too rutted. This practice, along with security patrols, helped to limit damage over much of the property. Other past uses included apiary activity, palmetto drupe harvesting, sabal palm harvesting, limited row crop fields, and trial eucalyptus plantations.

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 four (4) recorded archaeological sites and two (2) resource groups found within the designated area for OSSF. Additionally, one site discovered by staff members at OSSF has potential historical importance. Due to OSSF's proximity to Big Cypress National Preserve, the possibility exists for additional sites to be discovered. See Exhibit G and Table 4 for the cultural resource roster.

Table 4. Archaeological and Historical Sites on OSSF

Site ID	Site Name	Site Type
CR00885	Corduroy Road, Okaloacoochee Slough	Resource Group
HN00112	Gumbo Limbo Hammock	Archaeological
HN00113	Lambers Mound	Archaeological
HN00152	Dipping Trough, Okaloacoochee Slough	Archaeological
HN00264	OK Saw Mill	Archaeological
HN00361	Goodno Drainage Canal	Resource Group

As the Archeological Resource Management Monitor training is offered, Caloosahatchee Forestry Center personnel are selected to be trained as monitors to facilitate protection of cultural resources. 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, four (4) district FFS staff are trained by DHR as Archaeological Resource Management (ARM) monitors. FFS will pursue opportunities for additional personnel to receive ARM Monitor training. 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 resources 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 will 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 OSSF is to protect areas that are critical to maintaining southern Florida's ecological integrity and acquiring lands that are necessary for water management, water supply, and the conservation and protection of water resources. Management activities will be executed in a manner to minimize soil erosion and maintain and protect / enhance the hydrological resources on OSSF. 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 OSSF's waterbodies and their associated water quality and native plants and animals.

OSSF falls within the jurisdiction of the SFWMD. FFS will coordinate with SFWMD and / or DEP, 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 SFWMD 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 OSSF was obtained from the United States Department of Agriculture Natural Resources Conservation Service (NRCS). The major soils listed by the NRCS include: Winder fine sand; Tuscawilla fine sand; Wabasso sand, limestone substratum; Oldsmar sand; Gator muck and Riviera sand. Detailed information on all soils present on the forest may be found in Exhibit I.

2. Soil Protection

Management activities will be executed in a manner to 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 OSSF.

B. Water Resources

OSSF performs essential roles in the protection of water quality, groundwater recharge, flood control and aquatic habitat preservation. This is due to the forest's position in the landscape, unique natural features, and the number and types of water resources present (isolated wetlands, cypress swamps, basin wetlands, etc.). 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 Exhibits K and W for map of the water resources on OSSF.

1. Resources

The Okaloacoochee Slough serves as a headwater source for the Fakahatchee Strand Preserve State Park and Big Cypress National Preserve, as identified in 1998 by the SOR program. During the rainy season, waters from the slough will also flow north to the Caloosahatchee River. Flow during this time of the year will depend upon where rain has fallen on the forest, local winds, and the activities of the Barron Water Control District. During the dry season, the slough serves to store wet season runoff from western Hendry County through an extensive network of swales, sloughs, depressions, and other wetlands.

Cypress strands, hydric hammocks, depression marshes and wet flatwoods all occur on OSSF. Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through prescribed fire, when necessary, and the assurance of proper planning and mitigation of activities that would threaten natural hydrology.

2. Water Classification

The Florida Department of Environmental Protection, Standards Development Section reports that there are no waters on or near OSSF as exceptions to Class III in subparagraph 62-302.400(17)(b)64, F.A.C.; therefore, all of the surface waters on or adjacent to the site 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 subsection 62-302.400(15), F.A.C.

According to subsection 62-302.400(15), F.A.C., there are no OFWs on, adjacent to, or near OSSF. See Exhibit J.

3. Water Protection

Water resource protection measures, at a minimum, will be accomplished through the use of Best Management Practices (BMPs) as described in the most current version of Silviculture Best Management Practices Manual.

OSSF falls within the water resource jurisdiction of the SFWMD and serves as the headwaters of the Big Cypress Basin. The FFS will coordinate with SFWMD, as necessary, on activities pertaining to water resource protection and management. This will apply most directly to road construction activities, culvert installations, and low water crossings. FFS and SFWMD will work with FWC on hydrologic evaluation on the effects of major canals north of County Road 832 and development of restoration plan if one is necessary. If problems do arise, corrective action will be implemented by FFS staff under the direction of FFS Forest Hydrology Section, and in accordance with accepted standards.

4. Swamps, Marshes, and Other Wetlands

In addition to the waterways, OSSF contains approximately 20,495 acres in six (6) hydric communities: basin marsh, depression marsh, dome swamp, slough marsh, strand swamp, and wet prairie. 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.

5. Wetland Restoration

Wetland restoration objectives on the state forest include erosion control, restoration of hydrology and / or hydroperiod, 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, invasive species control, site preparation and re-vegetation with native wetlands species, and project monitoring. These activities may be conducted individually or concurrently; 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, OSSF, 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.

Consideration will be given to eliminating ditches if it can be accomplished without flooding necessary roads, structures, or adjacent landowners. Wetland restoration will be

coordinated with the FFS Hydrology Section and with SFWMD and DEP involvement/approval as appropriate. Any activities requiring SFWMD or DEP permits will be handled accordingly.

Wetland restoration will be coordinated with the SFWMD. 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 (BMAP)

A Basin Management Action Plan 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.

OSSF is a part of the Caloosahatchee Basin Management Action Plan (BMAP). This BMAP was first adopted in November 2012. Generally, the portion of the forest that is located north of CR 832 is located within this plan. More information for this plan can be found at www.floridadep.gov.

C. Flora and Fauna Resources

1. Rare, Threatened, and Endangered Species

The intent of FFS is to manage OSSF 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.

There are twenty-four (24) animal and twenty (20) plant species with either state or federal listed status that occur on OSSF. The species in Table 5 have been verified to be present now or in the past on the forest. See Table 5.

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

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
Plants					
Satinleaf	<i>Chrysophyllum oliviforme</i>	G5T5	S3	N	LT
Florida joint tail grass	<i>Coelorachis tuberculosa</i>	G3	S3	N	LT
Small's flax	<i>Linum carteri</i> var. <i>smallii</i>	G2T2	S2	N	LE
Pine lily	<i>Lilium catesbaei</i>	G4	S4	N	LT
Simpson's stopper	<i>Myrcianthes fragrans</i>	G4	S4	N	LT
Greater yellow spike orchid	<i>Polystachya concreta</i>	G3G5	S3	N	LE
Hand fern	<i>Cheiroglossa palmata</i>	G4	S3	N	LE
Piedmont jointgrass	<i>Coelorachis tuberculosa</i>	G3	S3	N	LT
Cutthroatgrass	<i>Coleataenia abscissa</i>	G3	S3	N	LE
Small's flax	<i>Linum carteri</i> var. <i>smallii</i>	G2T2	S2	N	LE
Florida spiny-pod	<i>Matelea floridana</i>	G2	S2	N	LE
Giant orchid	<i>Pteroglossaspis ecristata</i>	G2G3	S2	N	LT
Leafless beaked ladiestresses	<i>Sacoila lanceolata</i> var. <i>lanceolata</i>	G4	SNR	N	LT
Cardinal airplant	<i>Tillandsia fasciculata</i>	G5	SNR	N	LE
Stiff-leaved wild pine	<i>Tillandsia fasciculata</i> var. <i>densispica</i>	G5T4	SNR	N	LE
Twisted airplant	<i>Tillandsia flexuosa</i>	G5	S3	N	LT
Chiggery grapes	<i>Tournefortia hirsutissima</i>	G5	SNR	N	LE
Giant wild pine	<i>Tillandsia utriculata</i>	G5	S3	N	LE
Leatherleaf airplant	<i>Tillandsia valenzuelana</i>	G5	S2	N	LT
Redmargin zephyrlily	<i>Zephyranthes simpsonii</i>	G2G3	S2S3	N	LT
Amphibians & Reptiles					
American alligator	<i>Alligator mississippiensis</i>	G5	S4	SAT	FT (S/A)
Eastern diamondback rattlesnake	<i>Crotalus adamanteus</i>	G3	S3	UR	N
Eastern indigo snake	<i>Drymarchon couperi</i>	G3	S2?	LT	FT
Gopher tortoise	<i>Gopherus polyphemus</i>	G3	S3	N	ST
Birds					
Roseate spoonbill	<i>Ajaia ajaja</i>	G5	S2	N	ST
Florida grasshopper sparrow	<i>Ammodramus savannarum floridanus</i>	G5T1	S1	LE	FE
Florida sandhill crane	<i>Antigone canadensis pratensis</i>	G5T2 T3	S2S3	N	ST
Limpkin	<i>Aramus guarauna</i>	G5	S3	N	N
Florida burrowing owl	<i>Athene cunicularia floridana</i>	G4T3	S3	N	ST

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status*
Birds					
Audubon's crested caracara	<i>Caracara cheriway</i>	G5	S2	FT	FT
Hairy woodpecker	<i>Dryobates villosus</i>	G5	S3	N	N
Little blue heron	<i>Egretta caerulea</i>	G5	S4	N	ST
Snowy egret	<i>Egretta thula</i>	G5	S3	N	N
Tricolored heron	<i>Egretta tricolor</i>	G5	S4	N	ST
Swallow-tailed kite	<i>Elanoides forficatus</i>	G5	S2	N	N
Black Rail	<i>Laterallus jamaicensis</i>	G3	S2	LT	N
Wood stork	<i>Mycteria americana</i>	G4	S2	FT	FT
Bachman's sparrow	<i>Peucaea aestivalis</i>	G3	S3	N	N
Glossy ibis	<i>Plegadis falcinellus</i>	G5	S3	N	N
Snail kite	<i>Rostrhamus sociabilis plumbeus</i>	G4G5T2	S2	LE	FE
Mammals					
Florida mouse (Gopher mouse)	<i>Peromyscus floridanus</i>	G3	S3	N	N
Florida panther	<i>Puma concolor coryi</i>	G5T1	S1	LE	FE
Big Cypress fox squirrel	<i>Sciurus niger avicennia</i>	G5T2	S2	N	ST
Florida black bear	<i>Ursus americanus floridanus</i>	G5T2	S2	N	ST

* STATUS / RANK KEY

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.

FNAI Global Rank: G1= Critically Imperiled, G2 = Imperiled, G3= Very Rare, G4= Apparently Secure, G5= Demonstrably Secure, 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, S#? = Tentative Rank.

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. Based on the information available, the Florida Panther (*Puma concolor coryi*) is likely present or very near this site.

Documented habitat includes: basin marsh, depression marsh, dome swamp, mesic flatwoods, mesic hammock, slough marsh, strand swamp, pine plantation, wet flatwoods, and wet prairie.

b. Likely and Potential Habitat for Rare Species

In addition to documented occurrences, other rare or threatened species may occur near OSSF. 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 within the Devil's Garden, Half Circle Ranch, and Twelvemile Slough Forever Project. These are part of the State of Florida's Conservation and Recreation Lands Acquisition Program. See Exhibit X.

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 numerous records of listed species occurrences or critical habitats within the confines of the property. This includes state and federally listed endangered or threatened species.

Other findings by the FWC include:

- a.** The property is located adjacent to a Strategic Habitat Conservation Area, which may be suitable for the Eastern indigo snake (*Drymarchon couperi*), gopher tortoise (*Gopherus polyphemus*) and Florida panther (*Puma concolor coryi*).
- b.** OSSF is located within an area of moderate Species Richness which indicates the total number of species within potential habitat identified in a specific location.
- c.** OSSF is within Priority Wetlands, which are wetlands significant to listed wetland-dependent vertebrates.

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 Management Plan to guide management actions for the gopher tortoise (*Gopherus polyphemus*) on the forest. The FWC Gopher Tortoise 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 the forest. 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 the forest.

OSSF currently makes up a portion of the 58,880-acre Okaloacoochee Slough Wildlife Management Area (OSWMA). Management of this area will be directed to the production of biological diversity and species composition consistent with existing natural community types. Such communities will be restored and / or maintained through habitat management. All biological resources will be managed to maintain diversity.

Notable wildlife species inhabiting the forest include eastern diamondback rattlesnake (*Crotalus adamanteus*), Florida panther (*Puma concolor coryi*), gopher tortoise (*Gopherus polyphemus*), and wood stork (*Mycteria americana*). Hunting for white-tailed deer, turkey, and small game is permitted during designated seasons. OSSF also supports a moderate population of wild hogs (*Sus scrofa*). Hunter harvest pressure on wild hogs and nuisance trapping helps to control this population.

Presently, there are no permanently maintained wildlife openings or planted food plots on OSSF. Wildlife openings and food plots are established and maintained in accordance with the FFS State Forest Handbook.

Non-game species will be managed and protected through the restoration and maintenance of native ecosystems found on the forest. 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

Belt transect surveys for gopher tortoise burrows have been conducted by FFS and FWC staff opportunistically, as needed, but generally in advance of land management activities that may impact tortoises (e.g., timber harvest). 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.

Most of the isolated OSSF 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 is 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 OSSF. Soil drainage classes present across the forest range from poorly drained to very poorly drained; often either frequently flooded or with a degree of surficial saturation during the wetter months of the year (see Exhibit I). Therefore, despite the property totaling just over 32,370 acres in size, the FFS has determined there are no suitable soils for gopher tortoise recipient site establishment on OSSF.

D. Sustainable Forest Resources

FFS practices sustainable multiple-use forestry to meet the forest 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 OSSF.

F. Mineral Resources

Oil exploration was active on OSSF prior to state purchase and there are two (2) abandoned oil pads with limestone road accesses located on the forest. There is currently no known interest in conducting oil exploration on the forest.

G. Unique Natural Features and Outstanding Native Landscapes

OSSF is a 16,998-acre slough marsh that runs north to south through the forest. According to USGS quadrangles, the elevation ranges only about 10 feet (between 25 feet to 35 feet above sea level) across the entire forest, providing a large area of contiguous, uniform habitat for a variety of species. The natural systems of the Fakahatchee Strand Preserve State Park and Big Cypress National Preserve depend on the water stored and moved by the slough.

H. Research Projects / Specimen Collection

Research projects may be conducted on the forest 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 OSSF must be considered 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 OSSF 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 / specimen collections that have been initiated on the property include:

- Royal Alberta Museum (Dr. Buck). September 5, 2014. Conduct research on the taxonomy of aculeate Hymenoptera (bees, wasps, ants, and allies) and other insects of southern Florida.
- FWC Fish & Wildlife Research Institute (Scheick, McCown, Doran-Myers, and Shiver). 2014 & 2021. Estimate Florida black bear population size and density for South Florida Bear Management Unit.
- US Geological Survey (Dr. Bedrosian). November 18, 2014. Conduct geophysical surveys to collect magnetotelluric data in peninsular Florida.

- University of Florida (Dr. Wisely). January 22, 2015. Conduct research on pseudorabies virus in feral swine (*sus scrofa*) populations in south-central Florida.
- University of Florida (Dr. Kaplan). May 9, 2016. Renewal to conduct wetland sampling as part of the U.S. Environmental Protection Agency's (EPA) National Wetland Condition Assessment of three state forests.
- South Florida Water Management District (Hopper and Allman). 2016, 2017, 2018 & 2022. Wetland seed plant collection for Hendry County restoration project.
- University of Arizona (Koprowski). March 23, 2017. Close the data gaps and increase the knowledge level for Big Cypress fox squirrels on two state forests.
- University of Central Florida (Dr. Smith). November 9, 2017. Assess the importance of local habitat corridors used by the Florida panthers (*Puma concolor coryi*), specifically the impacts of roads and safe crossing needs in Collier, Hendry, and Lee Counties.
- University of Florida (Dr. Warren). 2019, 2020, 2021, 2022 & 2023. Renewal to collect insect vouchers specimens of Lepidoptera, Coleoptera, Diptera and Hymenoptera.
- Louisiana State University (Dr. Taylor and Stein). February 1, 2021. Investigate habitat management and prey availability for Common Nighthawks.
- University of Florida (Dr. Huler and LeMay). August 2, 2021. Collect Ambrosia beetle (*Xyleborus ferrugineus*) specimens for taxonomic research.
- FWC Fish & Wildlife Research Institute (Carpenter). 2022 & 2023. Investigate Osceola wild turkey gobbling and nesting chronology in south Florida.
- FWC Fish & Wildlife Research Institute (Sheick and Shiver). November 7, 2022. Document general bear presence in the Big Cypress – Glades / Highlands (BC-G/H) corridor for a demographics and dispersal study.
- North Carolina State University (Dr. Kings). July 6, 2023. Habitat characterization of *Ludwigia sect. Isnardia* (Onagraceae) and hybridization within the genus.

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; 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 passive outdoor recreation activities that are dependent on the natural environment. FFS will continue to promote and encourage public access and recreation 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 recreation 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

A variety of recreation opportunities are available on the forest. Visitors can enjoy hunting, fishing, hiking, primitive camping, horseback riding, bicycle riding, birding, picnicking, nature study, and sightseeing. Recreation activities will be balanced with the hydrological restoration and other resource management priorities. Recreation activities on OSSF are limited to day-use only, except for permitted primitive camping. See Exhibit D for a map of the recreation, facilities, and improvements.

1. Public Access and Parking

Access to OSSF is available to recreation users through 7 gates that originate off of the paved County Road 832. All gates have informational kiosks co-located with the gate along with a small area for parking. The kiosks are utilized to display wayfinding information on trails and roads along with interpretive and safety materials, and state forest condition updates.

There is currently a large parking area at the forest office for visitors to park. Outside of trailheads, there are an additional four (4) areas of parking:

- one off of Sic Island Road
- one on Wildcow Grade
- one off of Wildcow Group Camp road
- one on 4-sections road

The sides of the roads can also be used for parking.

2. Facilities

OSSF contains more than 27 miles of marked trails that are open to hiking, trail biking, and equestrian activities. OSSF trails are included in the Florida Forest Service's Trailwalker Program for hikers, as well as horse trails in the Trailrotter Program for equestrian use. See Exhibit D for a map of the facilities and improvements.

Existing Facilities and improvements include:

- Four (4) primitive campgrounds:

- Wildcow Island Primitive Group Camp with two (2) sites on raised camp platforms and non-potable water
- Panther Pond Campground with 15 sites
- Overflow Camp with six (6) primitive RV camp sites
- Hunt Camp with five (5) primitive RV camp sites and one (1) tent camp site
- Six (6) trailheads:
 - Twin Mills Trail Trailhead (2.3-mile trail)
 - Roney Island Trailhead (1.9-mile trail)
 - Mountain Bike Trailhead (3.2-mile trail) with picnic table
 - Equestrian Trailhead with 4 covered horse paddocks (17-mile trail) and non-potable well; two (2) picnic sites are along the trail on spur sections
 - Tram Loop Trailhead (3.6-mile trail) with 140 sq ft. picnic pavilion
 - Boardwalk Trailhead (1/8th mile trail) with picnic area
- A 40-acre dog training area is located off of Patterson Road, which provides a mix of old pasture, oak hammock, and pine flatwoods with low scrubby palmetto to allow for bird dog hunting training
- A check station is maintained by FWC off of Wildcow Grade with a pull-through, lime rock road and cleaning station
- FWC leases a space to the north of the forest headquarters for an equipment shop and storage area

3. Trails

Currently, OSSF provides trail access for hiking, equestrian use, and biking:

Boardwalk Trail – 1/8th-mile trail leads to a 600-ft. long boardwalk overlooking the Okaloacoochee Slough. A small trailhead is located off Sic Island Road with room to park eight (8) vehicles. Interpretive signage and benches have been incorporated into this trail.

Equestrian Trail – 17 miles of horse trail beginning on Wild Cow Grade that passes through much of the southeastern portion of the forest. The trail has road sections included to allow the connection of this trail. Additional recreation amenities include two (2) picnic areas, three (3) side trails, and a parking area with horse stalls and a non-potable well.

Mountain Bike Trail – 3.2 miles of interconnected bicycle trail offering riders multiple routes of passage through the area known as Dog Island South. The trail may be entered only through the access point on the south side of Keri Road (CR 832), about halfway between Sic Island Road and the state forest office. There is a large grass parking area located here with a picnic table and bike trail kiosk.

Roney Island Trail – 1.9 miles of hiking trail located off Wild Cow Grade just north of the Equestrian Trail. This route is a linear trail running west-southwest from the entrance

at Wild Cow Grade. There is a small trailhead for vehicles to park. This is the trail that is closest to the existing campgrounds.

Tram Loop Trail – 3.6 miles of hiking trail on the southwestern side of the forest. The trail follows the former railroad grade for the Atlantic Coast Line Railroad along the western boundary of the property and connects back to the point of origin via Sic Island Road and Sic Island Loop offering a wide-open view of emerging pine forests and former pasture areas. A large northern trailhead provides parking for 20 vehicles with a small picnic area, grill, and pavilion. A southern trailhead provides parking for two (2) vehicles or a pick-up point for hikers that want to avoid walking back on the forest road.

Twin Mills Trail – 3.2 miles of hiking trail through the northern side of the forest. The trail takes hikers past a historic sawdust pile started by ALICO when the land was logged in the earlier part of the 20th century, and then continues onto the Okaloacoochee Slough Wildlife Management Area with a partial on-road walk back to the trailhead. This trail is part of the Trailwalker network.

OSSF is part of the Great Florida Birding and Wildlife Trail with the best birding experienced via the Boardwalk Trail. Signs are along CR 832 to direct visitors to the birding locations.

4. Camping

Currently, OSSF manages four primitive camping areas:

Hunt Camp – There are five (5) RV sites and one (1) tent site at the Hunt Camp, located on the east side of Wild Cow Grade. The sites are constructed of crushed stone with wooden borders.

Overflow Camp – There are six (6) RV sites at the Overflow Camp, located about a mile north of the Hunt Camp on Wild Cow Grade. The sites are constructed of crushed stone with wooden borders and three (3) of the sites have a small tent pad with a base of pea gravel.

Panther Pond Camp – There are 15 sites at Panther Pond Camp, located about a half mile north of the Overflow Camp on Wild Cow Grade. There is an additional site for a camp host. The sites are made up of compacted limerock with natural vegetative barriers in between most of the campsites. There is a dumpster and two (2) portable toilets for campers to utilize.

Wild Cow Group Camp – There are two (2) sites at Wild Cow Group Camp at the southern end of Wild Cow Grade. These sites have raised wooden platforms and one of the sites has a non-potable water pump.

5. Hunting and Fishing

OSSF is managed cooperatively with FWC as the Okaloacoochee Slough WMA. Wildlife hunted on OSSF include deer, quail, dove, wild hogs, and turkeys. Fishing is popular at

Panther Pond and from the Tram Loop Trail where largemouth bass, sunfish, and non-native fish such as Tilapia are frequently caught.

The 40-acre dog training area is located off of Patterson Road. The area is mowed during the dry season with several small trails to allow hunters that utilize dogs to train their dogs off leash.

FWC maintains a check station at the corner of County Road 832 and Wildcow Grade for hunter information and for hunters to check in game when required. The check station is staffed by FWC.

6. Environmental Education and Outreach

Within this ten-year planning cycle, FFS will continue communicating our needs and concerns with our user groups, cooperators, and visitors. FFS will evaluate the best methods for communicating concerns and solutions to these user groups.

The main effort for outreach is to utilize materials posted in the kiosks that are located at the entrance to the forest. Small kiosks with maps and other pertinent seasonal information are located at each campground. There is interpretive information located at the old saw dust pile on Twin Mills Trail, near the old railroad grade on Tram Loop, and an interpretive trail that is a part of the Boardwalk Trail.

Periodic in-person events are hosted on the forest by FFS personnel, but more often, outreach is conducted outside of the forest at outreach events at schools, fairs, and other recreation events. One example is the annual Hendry Earth week that is hosted in Labelle for elementary school children in the area. The forest maintains partnerships with the school district and other recreation groups to allow for recreation information sharing.

A growing part of the forest's environmental education is providing information to visitors by phone and social media. As part of customer service efforts, OSSF staff will continue to pursue creating a Voice Operated Network for the forest's phone system to provide short narratives on what can be expected along trails or current forest conditions that will enhance the customer service experience of the forest. As social media becomes more widely accepted, the use of it will become more necessary to communicate forest conditions, wildlife sightings, and what visitors can expect when they visit different areas of the forest.

B. Planned Recreation Opportunities

FFS will continue to assess plans for additional recreation opportunities based on demand, carrying capacity, demographics, and impact to the resources on the forest. All planned improvements may be completed as staff and funding permits. Any plans will be incorporated into the Five-Year Outdoor Recreational Plan on file at OSSF.

1. Public Access and Parking

The relocation of the entrance gates 30-50 feet off of County Road 832 further into the forest would create needed separation between the gates, areas to park, and the paved road. This would reduce the risk of vehicular accidents at the forest. A minimum of four parking

spots will be established in front of each gate with ample room for larger vehicles to park safely off of County Road 832.

The locations of these modified gate entrances will be:

- North Loop West
- Sic Island Road
- Oil Pad Road
- Dog Island North
- Twin Mills Road
- Patterson Road
- Wild Cow Grade

We will also create a 2-spot parking area at the Dog Training area on Patterson Road for visitors to pull off of the narrow road.

Additional parking areas and public access points will be considered as the need arises. Work continues with the FWC lead portion of the Okaloacoochee Slough Wildlife Management Area to facilitate access to remote areas utilizing roads managed by FFS.

2. Facilities

Oil Well Pad Road Day Use Area – Construct a Wildlife Observation Tower and Pavilion at this day use area. There is currently only a picnic table that is placed in the dry season at this shadeless location. The construction of an elevated observation tower or structure to around 10' - 20' above the ground, with sufficient railings, would allow visitors to see over surrounding vegetation to view wildlife in this area. Interpretive signage could also be added. A 12' x 20' pavilion would provide needed shade in this location and would create an additional recreation opportunity on the forest.

Horse Trail Trailhead – Construct an additional four (4) covered paddocks at the horse trailhead for equestrian groups to stow and care for their horses and a limerock/#57 stone parking area and driveway into the site. The area is currently native soil and becomes very muddy after any type of rainfall, which causes vehicles to get stuck.

A CXT restroom or similar design that utilizes solar power will be selected and established at the entrance of the equestrian trails. Other restroom designs may also be considered. The restroom could be shared with the nearby Hunt Camp Campground. Any solution would have to be without power or utilize solar as the site is miles from the nearest electricity source.

Mountain Bike Trailhead at South Dog Island – No structures currently exist at this biking send-off point. There is parking for 20 vehicles at the site and the area allows bikers their own area to operate next to the 3.2-mile bike trail with good access to other areas of the forest. Construct at least one (1) 20' x 30' pavilion for this day use area to allow users to have a breakout of the sun and enjoy picnics and gatherings.

Welcome/Environmental Center Upgrades – The current office serves as a welcome and education center but needs improvement. There is currently one display cabinet that is an old china cabinet along with posters on the wall inside the office to tell the story of the forest and its management. No outdoor displays exist except for a new kiosk. The goal is to create indoor/outdoor interpretive information and a jump off-site for tours and visitors into the forest. The area already allows for the parking of 20 cars. Interpretive materials outside would be weather-proof displays to help immerse visitors in the inner workings of the forest. Interior displays would allow for dioramas and other static displays.

3. Trails

Mountain Bike Trail Extension – Extend the current Mountain Bike Trail an additional four (4) miles from the current 3.2 miles. The trail will be extended in a new area of the forest as the current bike area will not accommodate new trails due to wet conditions. The new four (4) mile section will connect Wildcow Grade to Patterson Road via an old causeway/fireline and extend into nearby pine flatwoods on existing fireline. The trail will be offset into the woods 10 feet from the fireline.

Roney Island Trail – Construct small bridges to assist hikers who wish to navigate the trail while sections are flooded, which is about 9 months of the year. The bridges would be constructed of wood posts and wooden spans/boards. Interpretive signage will be introduced to familiarize visitors with local flora and fauna.

North Tram Trail – Turn the existing North Tram into a designated trail. There is already a gate and walk-in area with parking for four (4) cars that is utilized by hunters. The trail would be five (5) miles in one direction on the western side of the forest and would provide year-round dry trail access in the forest.

FFS staff will examine the feasibility of developing a trail or trail system that connects existing or future planned trails from neighboring FWC managed parcels. This may include additional designated access points.

4. Camping

Hunt Camp – Two (2) additional camp sites will be added to the Hunt Camp. These primitive RV sites will be established with minimal clearing of vegetation required as the area is already an open field. OSSF desires to establish an appropriate restroom that will reduce the need for the placement of a portable toilet.

Keri RV Campground – A new RV campground will be created directly across from the main office on the other side of CR 832 using preexisting cleared space. The sites will include electric hook-ups and a dump station will be made accessible. Showers and restrooms will be provided with a new well that is drilled on-site. Power is available from powerlines on CR 832. We can establish up to 20 sites in the campground.

4 Sections Campground – Create a new campground with two (2) to four (4) campsites on 4-Sections Road down near the seed orchard. The location is desirable for more remote

tent camping away from the crowds and the road network is sufficient for primitive camping. Tent pads will be made of compacted limerock with vegetative buffers in-between camp sites. This would offer an area for hunters to be closer to more remote parts of the forest.

Overflow Campground – Add in a restroom system to move away from portable toilets that need to be cleaned weekly. Any solution would have to be without power or utilizing solar as the site is miles from the nearest electricity source.

Panther Pond Campground – Evaluate adding in a restroom system to move away from portable toilets that need to be cleaned weekly. Any solution would have to be without power or utilizing solar as the site is miles from the nearest electricity. Alternatively, OSSF staff may look at reducing the number of sites in the campground to maximize utilization and improve visitor experience.

5. Hunting and Fishing

Within this ten-year planning cycle, FFS will continue communicating our needs and concerns with our user groups, cooperators, and visitors. FFS will evaluate the best methods for communicating concerns and solutions to these user groups.

The forest will continue to work closely with the FWC neighboring properties of Spirit of the Wild WMA, Okaloacoochee Slough WMA – FWC lead, and Dinner Island Ranch WMA. New access points will be considered, provided they can be managed with law enforcement. Access by hunters and law enforcement is an excellent deterrent to illegal activity that occurs on the forest. A new access point has been proposed for Dog Island North to open up a large area of hunting that was previously nearly impossible to access.

No additional plans are in place to augment fishing opportunities, but if any come up they will be considered. A map of existing fishing opportunities will be created to show visitors where good spots to fish are located. Fishing remains very limited on OSSF.

Wild hogs are a growing problem on the forest and efforts will continue to manage their numbers in partnership with FWC.

6. Wildlife Viewing

OSSF is a designated site on the FWC's Great Florida Birding and Wildlife Trail. This trail is composed of more than 500 premier wildlife viewing sites across the state of Florida. Internally, a birding checklist for OSSF has been developed and will be updated as needed.

C. Hunter Access

Hunting is a popular activity on OSSF as part of the OSWMA. Most hunts are conducted on a quota system and include archery, spring turkey, general gun, family hunt, and muzzle loading seasons. In addition, a small game hunting season, including hogs, takes place typically in late autumn/early winter. The OSWMA brochure is on file at the OSSF office and can be accessed online at www.MyFWC.com.

Work continues within the Okaloacoochee Slough WMA to provide adequate hunter access. New designated entrance points will be considered in areas that border the WMA.

Non-hunting recreation users are encouraged to check the WMA regulations and season dates before visiting OSSF.

D. Education

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

VI. Forest Management Practices

A. Prescribed Fire

Forest management practices on OSSF are important in the restoration and maintenance of forest ecosystems and provide a variety of socio-economic benefits to Floridians. Management practices on OSSF 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 Caloosahatchee 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 the forest.

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

FFS has one (1) fire tower, two (2) brush trucks, and four (4) medium tractor-plow units and one (1) heavy dozer located in Hendry County. Additional support is available from neighboring counties. Personnel and equipment stationed at OSSF 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 OSSF produces multiple benefits. The objectives of prescribed burning on OSSF 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 OSSF, 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 OSSF 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 OSSF are estimated to have occupied 31,000 acres and to have burned at approximately one-to-ten-year intervals.

Current fire-dependent communities encompass 31,000 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, OSSF will plan for 3,700 to 7,500 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 26,000 acres of OSSF are within the desired fire-return interval.

1. Fire Management

The fire management plan serves as a working tool and an informational document for OSSF. 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. Collaboration will continue to occur with cooperators on adjoining properties.

The use of prescribed fire in the management of timber, wildlife, and ecological resources on OSSF 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, 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 perpetuating existing wildlife populations in Florida. Forest operations records and staff experience should be combined with the FNAI inventory and assessment (2022) 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 51-2 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 be identified and any restrictions or requirements relative to prescribed burning in proximity to these species or habitats will also be stated. 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 Caloosahatchee 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.

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 OSSF Fire Management Plan.

1. Suppression Strategies

If a wildfire occurs on OSSF 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 fire 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. Firebreaks and Firelines

A system of permanent fire breaks has been developed and maintained around and within the boundaries of OSSF to guard against fires escaping from and entering the forest. Such fire breaks 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 brought to BMP compliance as soon as practical after the fire is suppressed.

4. Sensitive Areas

OSSF 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 OSSF. When possible, fire staff will avoid line construction in wetland ecotones and other areas throughout the forest.

5. Firewise Communities

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

6. Adjacent Neighbor Contacts

The staff at OSSF maintains a list of neighbors that have requested they be notified in advance of prescribed burns. These landowners 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 wildfire and 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 strategies will apply to silvicultural practices on OSSF:

- a. To restore and maintain forest health and vigor through timber harvesting, prescribed burning, and reforestation, both naturally and artificially, with species native to the site.
- 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 OSSF 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 natural species of both overstory and groundcover. 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, reforestation, and/or timber stand improvement.

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 BMP Manual 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 (10%) of OSSF's timber stands 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 south Florida slash pine and eucalyptus. The eucalyptus trees, located on 25 acres, are to be eliminated after the next timber harvest to reforest with species that are native to the area. In addition, there are mixed hardwoods and cypress found throughout the forest.

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 OSSF, but the forest has had cattle leases in the past on the 350-acre parcel that is west of the old railroad grade on the western part of the forest. Future opportunities to lease this parcel will be explored after fire is introduced to the parcel.

D. Invasive Species Control

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

Ongoing maintenance and monitoring strategies are outlined in the Five-Year Ecological Management Plan which is developed to locate, identify, and control invasive plant species. Occurrences of invasive species are recorded in the OSSF 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 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 invasive animals. Feral hogs (*Sus scrofa*) are present on OSSF, and their numbers appear to be increasing as cattle grazing operations have ceased on surrounding parcels. FWC has issued a feral hog control permit to FFS for state forests within WMAs and FFS will allow for feral hog removal on OSSF through trapping and hunting as necessary. Burmese pythons (*Python bivittatus*) have been recently discovered at OSSF and their numbers are expected to increase. FFS works cooperatively with FWC and SFWMD to facilitate state forest access by licensed contract python hunters. Other invasive animals at OSSF include Cuban tree frogs (*Osteopilus septentrionalis*), armored catfish (*Hypostomus plecostomus*), and walking catfish (*Clarias batrachus*). Because these species are well established and are very difficult to manage, no control efforts by FWC are employed.

Training in the identification and control of invasive species will be scheduled for personnel as time and resources permit. Training concerning invasive plants will be coordinated with the Forest Management Bureau's Forest Health Section. Control of invasive species will be target specific and use a variety of methods including appropriately labeled and efficacious herbicides.

Table 6. Invasive Plant Species Occurring on OSSF

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Status
Rosary Pea	<i>Abrus precatorius</i>	Spot herbicide	200	Stable
Papaya	<i>Carica papaya</i>	Spot herbicide	<1	Decreasing
Sour Orange	<i>Citrus aurantium</i>	Spot herbicide	<1	Decreasing
Smooth Rattlebox	<i>Crotalaria pallida</i> var. <i>obovata</i>	Spot herbicide	<1	Stable
Showy Rattlebox	<i>Crotalaria spectabilis</i>	Spot herbicide	<1	Stable
Crowfoot Grass	<i>Dactyloctenium aegyptium</i>	Spot herbicide	200	Stable
Beggarweed	<i>Desmodium incanum</i>	Spot herbicide	200	Stable
Air-potato	<i>Dioscorea bulbifera</i>	Spot herbicide	<1	Decreasing
Eucalyptus	<i>Eucalyptus grandis</i>	Spot herbicide	16	Stable
Indian Laurel Fig	<i>Ficus microcarpa</i>	Spot herbicide	<1	Decreasing
West Indian Marsh Grass	<i>Hymenachne amplexicaulis</i>	Broadcast herbicide	200	Stable
Jaragua	<i>Hyparrhenia rufa</i>	Spot herbicide	1	Decreasing
Cogon Grass	<i>Imperata cylindrica</i>	Broadcast herbicide	200	Decreasing
Lantana; Shrub Verbena	<i>Lantana camara</i>	Spot herbicide	50	Increasing
Peruvian Primrose Willow	<i>Ludwigia peruviana</i>	Broadcast herbicide	3000	Increasing
Old-World Climbing Fern	<i>Lygodium</i> spp.	Spot herbicide	1600	Increasing
Melaleuca; Paperbark Tree	<i>Melaleuca quinquenervia</i>	Spot herbicide	100	Decreasing
Balsam Pear	<i>Momordica charantia</i>	Spot herbicide	10	Stable
Guinea Grass	<i>Panicum maximum</i>	Spot herbicide	<1	Stable
Torpedo Grass	<i>Panicum repens</i>	Broadcast herbicide	200	Stable
Bahia Grass	<i>Paspalum notatum</i>	Spot herbicide	100	Stable
Napier Grass; Elephant Grass	<i>Pennisetum purpureum</i>	Spot herbicide	<1	Decreasing
Water lettuce	<i>Pistia stratiotes</i>	Broadcast herbicide	5	Stable
Guava	<i>Psidium guajava</i>	Spot herbicide	<1	Decreasing
Brazilian Pepper	<i>Schinus terebinthifolius</i>	Spot herbicide/Mow	1600	Increasing

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Status
Bulrush	<i>Scirpus cubensis</i>	Broadcast herbicide	5	Decreasing
Egger's Nutrush	<i>Scleria eggersiana</i>	Spot herbicide	375	Stable
Wright's Nutrush	<i>Scleria lacustris</i>	Broadcast herbicide	2000	Increasing
Java Plum	<i>Syzygium cumini</i>	Spot herbicide	100	Stable
Caesar's Weed	<i>Urena lobata</i>	Spot herbicide	400	Stable

In addition to the known invasive plants (Table 6) that are managed on OSSF, the following species may be found occasionally during routine forest inventories. These species exist at very low density, if at all, and are eliminated when found:

<i>Abutilon theophrasti</i>	Velvet leaf
<i>Achyranthes aspera</i>	Devil's horsewhip
<i>Arundo donax</i>	Giant reed
<i>Commelina caroliniana</i>	Carolina dayflower
<i>Commelina gambiae</i>	Gambian dayflower
<i>Cuphea carthagenensis</i>	Columbian waxweed
<i>Cynodon dactylon</i>	Bermudagrass
<i>Desmodium triflorum</i>	Three-flower tick trefoil
<i>Echinochloa crus-galli</i> var. <i>frumentacea</i>	Japanese millet
<i>Eichhornia crassipes</i>	Water-hyacinth
<i>Emilia fosbergii</i>	Florida tassel flower
<i>Eragrostis atrovirens</i>	Thalia lovegrass
<i>Fimbristylis schoenoides</i>	Ditch fimbry
<i>Indigofera hirsuta</i>	Hairy indigo
<i>Kyllinga brevifolia</i>	Shortleaf spike sedge
<i>Lindernia crustacea</i>	Malaysian false pimpernel
<i>Melochia corchorifolia</i>	Chocolateweed
<i>Murdannia nudiflora</i>	Nakedstem dewflower
<i>Oeceoclades maculata</i>	African spotted orchid
<i>Paspalum acuminatum</i>	Canoe grass
<i>Paspalum urvillei</i>	Vaseygrass
<i>Pteris vittata</i>	Chinese brake fern
<i>Rhynchelytrum repens</i>	Natal grass
<i>Rottboellia cochinchinensis</i>	Itchgrass
<i>Sacciolepis indica</i>	Glenwood grass
<i>Salvinia minima</i>	Water spangles
<i>Setaria viridis</i>	Green foxtail
<i>Solanum viarum</i>	Tropical soda apple
<i>Sporobolus indicus</i>	Smut grass
<i>Urocloa mutica</i>	Para grass
<i>Xyris jupicai</i>	Richard's yellow-eyed grass
<i>Zeuxine strateumatia</i>	Lawn orchid

E. Insects, Disease, and Forest Health

Currently there are no significant insect or disease problems on OSSF. In the event of a forest pest outbreak, OSSF 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 agencies in Hendry and Collier Counties will be notified of the approval of this plan documenting this designation.

As a result, prior to conducting any arthropod control activities on OSSF, 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 OSSF. 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 V.

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 includes but is not limited to:

1. Inventory
2. Herbicide applications
3. Restoration activities
4. Site preparation activities
5. Reforestation
6. Timber harvesting
7. Biological assessments and mapping
8. Contractors for fixed capital and infrastructure improvements

VII. Proposed Management Activities for Natural Communities

In 2022, FNAI completed an inventory and natural community mapping project on OSSF. 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	1,464	1,346
Depression marsh	1,718	1,632
Dome swamp	102	547
Mesic flatwoods	7,111	5,116
Mesic hammock	1,191	1,185
Slough marsh	16,998	15,414
Strand swamp	229	662
Wet flatwoods	2,134	1,696
Wet prairie	1,399	894
Managed and other altered landcover types**	N/A	3,854
TOTAL	32,346	32,346

* Rounding errors exist

** See Tables 8 & 9

Table 8. Managed Landcover Type

Community Type	Current Acres*
Pine plantation	590
TOTAL	590

* Rounding errors exist

Table 9. Other Altered Landcover Types

Landcover Type*	Current Acres**
Abandoned field / abandoned pasture	236
Artificial pond	3
Canal / ditch	154
Clearing	36
Developed	49
Invasive exotic monoculture	129
Road	208
Successional hardwood forest	1,453
Successional hydric shrubland	996
TOTAL	3,264

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

** Rounding errors exist

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, representative species present, and hydrology. 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 the forest. 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 and / or 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 OSSF

Habitat Type	Historic Fire Return Intervals**	OSSF Fire Frequency Goal (Local)	Comments
Basin marsh	Varies	2-4	Frequency of fire varies depending on the hydrology of the marsh and its exposure to fire from surrounding areas.
Depression marsh	Varies	1-10	Ecotones burned per frequency of adjacent upland habitat type.
Dome swamp	5-100	3-5	Ecotones burned per frequency of adjacent upland habitat type.
Mesic flatwoods	2-4	2-4	Depends on pine species, density, age, and fuel conditions.
Mesic hammock	NA	NA	Edges burned only.
Slough marsh	1-10	1-10	Best done when driest time of year.
Strand swamp	20-60	5-10	Burn into edges only.
Wet flatwoods	3-10	2-4	Depends on pine species, density, age, and fuel conditions. 2-4 years for grassy wet flatwoods, 5-10 years for shrubby wet flatwoods.
Wet prairie	2-3	2-3	Require frequent, low intensity ground fires to maintain groundcover and minimize woody vegetation encroachment.

** As determined by FNAI

The following community descriptions, existing condition descriptions, and management recommendations are taken from a 2022 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 OSSF.

To achieve the objectives outlined in this plan, the following management activities will be performed in the natural and managed communities at OSSF 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 marshes are regularly inundated freshwater herbaceous wetlands that may occur in a variety of situations but, in contrast to depression marshes, are not small or shallow inclusions within a fire-maintained matrix community.

Species composition is heterogeneous both within and between marshes but can generally be divided into submersed, floating-leaved, emergent, and grassy zones from deepest to shallowest portions; shrub patches may be present within any of these zones. Basin marshes on OSSF have deeper areas vegetated by species able to withstand longer hydroperiods, such

as pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lancifolia*), alligatorflag (*Thalia geniculata*), sawgrass (*Cladium jamaicense*), common buttonbush (*Cephalanthus occidentalis*) and pond apple (*Annona glabra*) with coastalplain willow (*Salix caroliniana*) abundance restricted to small islands. This deeper zone is surrounded by blue maidencane (*Panicum hemitomon*), Tracy's beaksedge (*Rhynchospora tracyi*), narrowfruit horned beaksedge (*Rhynchospora inundata*), peelbark St. John's wort (*Hypericum fasciculatum*), lemon bacopa (*Bacopa caroliniana*), and water toothleaf (*Stillingia aquatica*). Surrounding these species and up to the edge of the marsh, species such as longleaf threeawn (*Aristida palustris*), bluejoint panicum (*Coleataenia tenera*), water cowbane (*Tiedemannia filiformis* ssp. *filiformis*), yellow-eyed grass (*Xyris* spp.), tenangle pipewort (*Eriocaulon decangulare*), false foxglove (*Agalinis* spp.), rosy camphorweed (*Pluchea baccharis*), combleaf mermaidweed (*Proserpinaca pectinata*), and Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*) are present.

Basin marshes on OSSF are common, often occurring as large, shallow basins within mesic and wet flatwoods and occasionally wet prairie. There may be multiple deep areas connected by shallower marsh, almost forming short slough marshes. On the 1940s aerial photographs, basin marshes appear as smooth dark, irregularly shaped signatures situated within the flatwoods and prairies.

Current Conditions:

Most basin marshes on OSSF are in good condition, with similar structure to the presumed historic conditions. The deepest areas within the marsh contain pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lancifolia*), alligatorflag (*Thalia geniculata*), and occasionally, pond apple (*Annona glabra*) and common buttonbush (*Cephalanthus occidentalis*). Many of the marshes have built up deep peat centers, indicated by a coastalplain willow (*Salix caroliniana*) dome. In some marshes these coastalplain willow domes have become the dominant cover. The zone surrounding the deeper areas is occupied by sawgrass (*Cladium jamaicense*), blue maidencane (*Panicum hemitomon*), Tracy's beaksedge (*Rhynchospora tracyi*), narrowfruit horned beaksedge (*Rhynchospora inundata*), peelbark St. John's wort (*Hypericum fasciculatum*), lemon bacopa (*Bacopa caroliniana*), and water toothleaf (*Stillingia aquatica*). Outer edges of the basin marshes often consist of longleaf threeawn (*Aristida palustris*), spadeleaf (*Centella asiatica*), bluejoint panicum (*Coleataenia tenera*), clustered bushmint (*Hyptis alata*), rosy camphorweed (*Pluchea baccharis*), combleaf mermaidweed (*Proserpinaca pectinata*), climbing hempvine (*Mikania scandens*), blue maidencane (*Amphicarpum muhlenbergianum*), chestnutleaf falsecroton (*Caperonia castaneifolia*), Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*), and southern bayberry (*Morella cerifera*).

A few basin marshes have been heavily altered through hydrological changes, road construction, or ditches. Basin marshes with these heavy disturbances are prone to being invaded by exotic species, such as torpedo grass (*Panicum repens*), Wright's nutrush (*Scleria lacustris*), and Peruvian primrosewillow (*Ludwigia peruviana*).

Fire Regimes:

Prescribed burns should be allowed to burn into basin marshes when the surrounding flatwoods are burned. Depending on climatic conditions and fuel moistures during the burn, the fire may burn completely through the marsh or may just creep into the shallower areas. Prescribed burns between April and June and into the early wet season may have a better chance to encroach into the deep, peat-accumulated centers, controlling the buildup of peat and encroachment of coastalplain willow. The fire regime of these systems is 1-10 years, though the times of year when they can be burned generally coincides with the heart of wildfire activity in Florida.

Management Needs:

Management of basin marshes on OSSF should focus on removal of exotic species such as torpedo grass and Wright's nutrush, restoration of hydrological patterns where possible, and control/monitoring of coastalplain willow encroachment. Control and/or eradication of invasives such as torpedo grass and Wright's nutrush are crucial to maintaining native plant diversity and hydrology. Wherever possible, hydrological alterations should be reversed, whether by ditch blocking, canal / ditch filling, or redesigning roads and ORV trails so as to not disrupt the natural hydrology. Coastalplain willow encroachment should be monitored, and efforts taken to reduce its growth. This can be accomplished by allowing prescribed burns from adjacent mesic flatwoods to burn into marshes. Herbicide control of coastal willow areas can also be undertaken if located near a culvert critical to maintaining flows. Burns during the early wet season would have a greater chance of reaching these deep, peat-accumulated areas.

B. Depression Marsh**Description:**

Depression marshes are isolated, herbaceous wetlands situated in shallow, usually small and often rounded or oval shaped depressions in fire-maintained landscapes such as mesic or wet flatwoods. These marshes typically have concentric zones of vegetation related to the length of hydroperiod and depth of flooding.

Depression marshes on OSSF may have a deeper center vegetated by species able to withstand longer hydroperiods, such as pickerelweed (*Pontederia cordata*) and alligatorflag (*Thalia geniculata*). Depending on the depth and amount of peat accumulation of the marsh, these species may not be found and, instead, species that occupy intermediate depths will occupy the center of the marsh. These species include blue maidencane (*Panicum hemitomon*), Tracy's beaksedge (*Rhynchospora tracyi*) and lemon bacopa (*Bacopa caroliniana*). Surrounding these species and up to the edge of the marsh, species such as longleaf threeawn (*Aristida palustris*), bluejoint panicum (*Coleataenia tenera*), water cowbane (*Tiedemannia filiformis* ssp. *filiformis*), and combleaf mermaidweed (*Proserpinaca pectinata*) are found.

Depression marshes are common throughout OSSF within mesic and wet flatwoods and occasionally wet prairies. On the 1940s aerial photographs, depression marshes appear as smooth dark, circular signatures situated within the flatwoods and prairies.

Current Conditions:

Most depression marshes on OSSF are similar in structure to presumed historic conditions. Many of the marshes have a deeper center consisting of species such as pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lancifolia*), sawgrass (*Cladium jamaicense*), and alligatorflag (*Thalia geniculata*). Coastalplain willow (*Salix caroliniana*) is occasionally found in these deeper centers and is the dominant species in some depression marshes. Species that surround the deeper center or, in cases where a deeper center is not present, occupy the entire marsh include blue maidencane (*Panicum hemitomon*), Tracy's beaksedge (*Rhynchospora tracyi*), narrowfruit horned beaksedge (*Rhynchospora inundata*), peelbark St. John's wort (*Hypericum fasciculatum*), lemon bacopa (*Bacopa caroliniana*), and water toothleaf (*Stillingia aquatica*). The outer edges of depression marshes consist of longleaf threeawn (*Aristida palustris*), bluejoint panicum (*Coleataenia tenera*), piedmont marshelder (*Iva microcephala*), clustered bushmint (*Hyptis alata*), rosy camphorweed (*Pluchea baccharis*), combleaf mermaidweed (*Proserpinaca pectinata*), climbing hempvine (*Mikania scandens*), blue maidencane (*Amphicarpum muhlenbergianum*), chestnutleaf falsecroton (*Caperonia castaneifolia*), and southern bayberry (*Morella cerifera*).

Some depression marshes have been heavily altered through hydrological changes, road construction, or ditches. Depression marshes with these heavy disturbances are prone to being invaded by exotic species, such as torpedo grass (*Panicum repens*), Wright's nutrush (*Scleria lacustris*), and Peruvian primrosewillow (*Ludwigia peruviana*).

Fire Regimes:

Historically, fires would have swept across the depression marshes when the surrounding mesic flatwoods burned, approximately every 2 to 4 years. Presently, prescribed fires should be allowed to burn into depression marshes when the surrounding mesic flatwoods burn. Depending on climatic conditions and fuel moistures during the burn, the fire may burn completely through the marsh or may just creep into the shallower areas. Prescribed fires between April and June (the early wet season) may have a better chance to encroach into the deep, peat-accumulated centers thereby controlling the buildup of peat and the encroachment of coastalplain willow.

Management Needs:

Management of depression marshes on OSSF should focus on removal of exotic species, specifically torpedo grass though current control methods are not reliable to control this species. Restoration of hydrological conditions and control/monitoring of coastalplain willow encroachment are also important. The reason that the control and/or eradication of invasives such as torpedo grass and Wright's nutrush are important is that they can dramatically reduce native plant diversity. Wherever possible, hydrological alterations should be reversed through acceptable methods including ditch blocking, canal/ditch filling, or redesigning roads and ORV trails to not disrupt the natural hydrology. Coastalplain willow encroachment should be monitored, and efforts should be taken to reduce its growth in the depression marshes. This can be accomplished by allowing prescribed burns from adjacent mesic flatwoods to burn into marshes. Burns during the early wet season would have a greater chance of reaching these deep, central, peat-accumulated areas, but burns during any time of the year are acceptable.

C. Dome Swamp

Description:

Dome swamps are typically shallow, rounded, forested depressions dominated by cypress (*Taxodium* spp.) that have a dome-like appearance due to smaller trees growing along the shallower edges and larger trees growing in the deeper center. Dome swamps in south Florida have a higher component of tropical species but the dominant species (i.e., pond cypress) are mostly temperate.

The closed canopy is dominated by pond cypress (*Taxodium ascendens*). Shrubs are typically sparse to moderate, but often are absent in dome swamps with a high fire frequency. Typical shrubs include southern bayberry (*Morella cerifera*) and strangler fig (*Ficus aurea*). The herb layer is generally dominated by ferns and other herbaceous species, including toothed midsorus fern (*Telmatoblechnum serrulatum*), false nettle (*Boehmeria cylindrica*), royal fern (*Osmunda regalis* var. *spectabilis*), cinnamon fern (*Osmunda cinnamomea*), and wild Boston fern (*Nephrolepis exaltata*). Vines and epiphytes are common.

Dome swamps on OSSF historically occurred mostly in the southern half of the property as small islands within slough marsh or flatwoods. Most of these swamps are circular, but some are irregularly shaped. They also are occasional within basin marshes and depression marshes, forming an edge around the marsh or a dome at the center. In the 1940s aerials, dome swamps have a light grey, textured signature.

Current Conditions:

Dome swamps of OSSF typically have a closed canopy of pond cypress (*Taxodium ascendens*) with a subcanopy of cabbage palm (*Sabal palmetto*). At least one surveyed dome swamp on the property has a canopy entirely composed of Carolina ash (*Fraxinus caroliniana*). The shrub layer is sparse to dense and includes myrsine (*Myrsine cubana*), southern bayberry (*Morella cerifera*), and Brazilian pepper (*Schinus terebinthifolius*). The herb layer is generally dominated by fern species, namely toothed midsorus fern (*Telmatoblechnum serrulatum*). Other herb species include spadeleaf (*Centella asiatica*), sawgrass (*Cladium jamaicense*), bluejoint panicum (*Coleataenia tenera*), rosy camphorweed (*Pluchea baccharis*), pickerelweed (*Pontederia cordata*), and alligatorflag (*Thalia geniculata*). Vines are infrequent to common and include bristly greenbrier (*Smilax tamnoides*), peppervine (*Ampelopsis arborea*), and white twinevine (*Funastrum clausum*). Epiphytes are common and include Florida butterfly orchid (*Encyclia tampensis*), golden polypody (*Phlebodium aureum*), resurrection fern (*Pleopeltis michauxiana*), ballmoss (*Tillandsia recurvata*), Spanish moss (*Tillandsia usneoides*), and spreading air-plant (*Tillandsia utriculata*). Occasionally the dome swamps may contain a large, deep center dominated by coastalplain willow (*Salix caroliniana*), common buttonbush (*Cephalanthus occidentalis*), and pond apple (*Annona glabra*).

Several state-listed epiphytic species were noted in dome swamps, including needleroot airplant orchid (*Dendrophylax porrectus*), pale-flowered polystachya (*Polystachya concreta*), Balbis' airplant (*Tillandsia balbisiana*), common wild-pine (*Tillandsia fasciculata*), and spreading air-plant (*Tillandsia utriculata*). Invasive species were also noted in dome swamps

including Egger's nutrush (*Scleria eggersiana*), Old-World climbing fern (*Lygodium microphyllum*), and Brazilian pepper (*Schinus terebinthifolia*).

Dome swamp coverage on OSSF has more than quadrupled since the 1940s, presumably from reduced fire frequency throughout the slough marsh. In addition to many historic dome swamps expanding in size, several new dome swamps have developed. Also, several historic depression marshes and basin marshes in the southern half of the property have developed substantial dome swamp inclusions or have been fully overtaken by dome swamp.

Fire Regimes:

Historically, the dome swamps on OSSF would have lightly burned when the surrounding slough marsh burned, every 1-5 years. These burns would usually affect just the outer edges of the dome swamps since they tend to have a central area that is deeper with open water that is likely burned only during droughts.

Management Needs:

Management goals for dome swamps on OSSF should focus on removal of exotic species as this poses the greatest threat to the community. Brazilian pepper and primrose willow can withstand long periods of inundation and Old-World climbing fern can eventually reach the canopy and shade out all native vegetation.

D. Mesic Flatwoods

Description:

Mesic flatwoods are forests of southern pine species with little or no subcanopy and a dense ground cover of herbs and shrubs occurring on flat terrain. This structure was maintained historically by frequent, lightning-ignited fires.

In this part of Florida, the canopy is south Florida slash pine (*Pinus elliottii* var. *densa*), with a scattered subcanopy of younger pines. Cabbage palm (*Sabal palmetto*), dahoon holly (*Ilex cassine*), and live oak (*Quercus virginiana*) are rare subcanopy species. Saw palmetto is the dominant shrub species with a lesser frequency of other species such as coastalplain staggerbush (*Lyonia fruticosa*), gallberry (*Ilex glabra*), wild pennyroyal (*Piloblephis rigida*), and shiny blueberry (*Vaccinium myrsinites*), all forming a short shrub layer. The herb layer is predominantly wiregrass (*Aristida stricta*) and is accompanied by a high diversity of herbs, sedges, and other grasses. Vines and epiphytes are infrequent and include muscadine grape (*Vitis rotundifolia*), earleaf greenbrier (*Smilax auriculata*), and golden polypody (*Phlebodium aureum*).

Historically, mesic flatwoods occupied most of the uplands on OSSF. In addition, a few small islands within the slough marsh were mapped as historic mesic flatwoods, based on their signatures in the historic aerials. In the 1940s aerials, mesic flatwoods appear light to medium gray and slightly textured due to saw palmetto, with dark, widely spaced pines.

Current Conditions:

Mesic flatwoods on OSSF have been disturbed by past logging practices, which reduced the abundance of south Florida slash pine (*Pinus elliottii* var. *densa*), and by agricultural uses,

mainly cattle grazing, which has greatly altered the species makeup of the herbaceous layer. This is especially evident in the flatwoods along North Loop-West Road, approximately 1 mile north of Keri Road. Viewing current (2020) aerial photography in this area, the light green signature of saw palmetto is visible east of the road. West of the road, the saw palmetto appears to have been mostly removed, making the area appear unnaturally more like wet flatwoods west of the road and mesic flatwoods east of the road. In contrast, the area appears to be a homogenous stand of mesic flatwoods in the 1940s aeriels.

Most of the surveyed mesic flatwoods on OSSF included some degree of wet flatwoods or appeared to be a mosaic of mesic and wet flatwoods that are difficult to tease apart. Currently, the pine canopy is sparse and composed of mature south Florida slash pine. The subcanopy, which is composed of young south Florida slash pine, cabbage palm (*Sabal palmetto*), and live oak (*Quercus virginiana*), is typically sparse but can be thicker in some areas. Tall shrubs are the dominant cover in the flatwoods and include an often-dense stand of saw palmetto (*Serenoa repens*), coastalplain staggerbush (*Lyonia fruticosa*), fetterbush (*Lyonia lucida*), gallberry (*Ilex glabra*), southern bayberry (*Morella cerifera*), myrsine (*Myrsine cubana*), tarflower (*Bejaria racemosa*), and winged sumac (*Rhus copallinum*). The short shrub layer may be absent or very sparse due to lack of fire. Common short shrubs include shiny blueberry (*Vaccinium myrsinites*), wild pennyroyal (*Piloblephis rigida*), dwarf live oak (*Quercus minima*), fourpetal St. John's Wort (*Hypericum tetrapetalum*), roundpod St. John's wort (*Hypericum cistifolium*), and netted pawpaw (*Asimina reticulata*).

The herbaceous stratum is currently dominated by native, weedy species such as broomsedge bluestem (*Andropogon virginicus*), bushy bluestem (*Andropogon glomeratus*), spadeleaf (*Centella asiatica*), slender flattop goldenrod (*Euthamia caroliniana*), and Carolina redroot (*Lachnanthes caroliniana*). The invasive Caesar's weed (*Urena lobata*) is fairly common, especially in disturbed areas. Other herb species include blue mistflower (*Conoclinium coelestinum*), rabbitbells (*Crotalaria rotundifolia*), witchgrasses (*Dichanthelium spp.*), tall elephantsfoot (*Elephantopus elatus*), Mohr's thoroughwort (*Eupatorium mohrii*), roundleaf thoroughwort (*Eupatorium rotundifolium*), pineland heliotrope (*Euploca polyphylla*), Elliott's milkpea (*Galactia elliotii*), clustered bushmint (*Hyptis alata*), whitehead bogbutton (*Lachnocaulon anceps*), rosy camphorweed (*Pluchea baccharis*), orange milkwort (*Polygala lutea*), bracken fern (*Pteridium aquilinum*), blackroot (*Pterocaulon pycnostachyum*), beaksedges (*Rhynchospora spp.*), yellow hatpins (*Syngonanthus flavidulus*), Virginia chain fern (*Woodwardia virginica*) and yellow-eyed grasses (*Xyris spp.*). Wiregrass (*Aristida stricta*) is rare. Vines are common and include muscadine (*Vitis rotundifolia*), eastern poison ivy (*Toxicodendron radicans*), and earleaf greenbrier (*Smilax auriculata*). Golden polypody (*Phlebodium aureum*) is often found in cabbage palms and resurrection fern (*Pleopeltis michauxiana*) is often on live oaks in the subcanopy.

Some areas of historic mesic flatwoods areas that border or jut out into wetlands have developed a dense subcanopy of cabbage palm and live oak. These areas are currently mapped as successional hardwood forest and they resemble mesic hammocks. These areas are dominated by a dense cabbage palm and live oak subcanopy with scattered, mature south Florida slash pine in the canopy. The understory vegetation is usually dominated by saw palmetto and southern bayberry with Caesar's weed and Brazilian pepper. In some of these

areas, remnant mesic flatwoods vegetation, such as coastalplain staggerbush, shiny blueberry, wild pennyroyal, and wiregrass are found.

Fire Regimes:

Historically, fires ignited by lightning during the early thunderstorm season (May - July) would have spread across the landscape every 2 to 4 years and burned most of the large mesic flatwoods complex. Currently, annual, or biannual dormant season fires may aid in attaining a structure that more closely resembles historic conditions. Once the desired conditions have been met, a regime of prescribed burns every 2 to 4 years during late spring and early summer may be started if resources allow. The small islands within the slough marsh likely burned irregularly when the marsh burned, or when winds generated spot fires. These irregular fires created a cycle of succession to hardwood forest, followed by an intense fire resulting again in a typical mesic flatwoods community.

Management Needs:

Management goals for the mesic flatwoods of OSSF should focus on the establishment of wiregrass, restoration of fire suppressed areas, and removal of exotic species. Removal of exotic species is important to reduce competition with native species. Timber stand improvement work, including forestry mowing and roller chopping will be considered to control competing ground vegetation. Thinning operations and timber harvests will be considered as pines mature and begin to compete with the surrounding trees to achieve healthy forest conditions, limit pest and disease outbreaks, and promote additional natural regeneration.

E. Mesic Hammock

Description:

Mesic hammocks are closed canopy forests, dominated by hardwood species, often occurring along wetlands or as islands within wetlands. Mesic hammocks burn infrequently due to their positioning along wetlands, which provide protection from fire. Mesic hammocks in southern Florida often contain subtropical species of shrubs, woody vines, and epiphytes.

The closed canopy consists of primarily live oak (*Quercus virginiana*) and cabbage palm (*Sabal palmetto*) and occasionally gumbo limbo (*Bursera simaruba*) and satinleaf (*Chrysophyllum oliviforme*). The shrubby understory may be dense or open, tall, or short, and is typically composed of a mix of saw palmetto (*Serenoa repens*), American beautyberry (*Callicarpa americana*), white stopper (*Eugenia axillaris*), and red mulberry (*Morus rubra*). Tropical shrubs such as myrsine (*Myrsine cubana*) twinberry (*Myrcianthes fragrans*), and wild coffee (*Psychotria nervosa*) are common. The herb layer is often sparse or patchy and consists of various graminoids. Abundant epiphytes on live oaks and cabbage palms are a characteristic feature of mesic hammocks. These include Spanish moss (*Tillandsia usneoides*) and other air-plants (*Tillandsia* spp.), epiphytic ferns such as resurrection fern (*Pleopeltis polypodioides* var. *michauxiana*), golden polypody (*Phlebodium aureum*), and shoestring fern (*Vittaria lineata*).

Mesic hammocks on OSSF historically occurred as islands within the slough marsh or at the edges of uplands that are surrounded by wetlands and naturally protected from fire. In the

1940s aerials, mesic hammocks have a dark, heavily textured appearance.

Current Conditions:

All currently mapped mesic hammocks on OSSF were mapped as such in the historic conditions. Some areas of historic mesic/wet flatwoods have undergone prolonged fire suppression and have developed a similar oak / palm dominated structure to mesic hammocks. These areas are currently mapped as successional hardwood forest (see separate successional hardwood forest section of this report for those descriptions).

Mesic hammocks on OSSF have a closed canopy of live oak, cabbage palm, and rarely, gumbo-limbo. Some mesic hammocks have hydric hammock inclusions with more hydrophilic canopy species such as red maple (*Acer rubrum*) and swamp laurel oak (*Quercus laurifolia*). The subcanopy of mesic hammocks is dense and consists of cabbage palm, sugarberry (*Celtis laevigata*), pigeon plum (*Coccoloba diversifolia*), white stopper (*Eugenia axillaris*), red mulberry (*Morus rubra*), strangler fig (*Ficus aurea*), and sour orange (*Citrus x aurantium*). The state listed satinleaf (*Chrysophyllum oliviforme*) and twinberry (*Myrcianthes fragrans*) are rare in the subcanopy. The invasive Brazilian pepper (*Schinus terebinthifolia*) was noted in the subcanopy and shrub layers in several hammocks throughout the property. Shrubs comprise most of the understory and include saw palmetto, myrsine, coralbean (*Erythrina herbacea*), southern bayberry (*Morella cerifera*), wild coffee (*Psychotria nervosa*), shortleaf wild coffee (*Psychotria sulzneri*), rougeplant (*Rivina humilis*), and hog plum (*Ximenia americana*).

Herbs are sparse and include broomsedge bluestem (*Andropogon virginicus*), false nettle (*Boehmeria cylindrica*), spadeleaf (*Centella asiatica*), witchgrasses (*Dichanthelium* spp.), dogfennel (*Eupatorium capillifolium*), manyflower marshpennywort (*Hydrocotyle umbellata*), wild Boston fern (*Nephrolepis exaltata*), monk orchid (*Oeceoclades maculata*), woodsgrass (*Oplismenus hirtellus*), toothed midsorus fern (*Telmatoblechnum serrulatum*), Caesar's weed (*Urena lobata*), and Virginia chain fern (*Woodwardia virginica*). Vines are common to abundant and include peppervine (*Ampelopsis arborea*), possum grape (*Cissus verticillata*), Virginia creeper (*Parthenocissus quinquefolia*), earleaf greenbrier (*Smilax auriculata*), laurel greenbrier (*Smilax laurifolia*), bristly greenbrier (*Smilax tamnoides*), eastern poison ivy (*Toxicodendron radicans*), summer grape (*Vitis aestivalis*), and muscadine (*Vitis rotundifolia*). The state-endangered woody vine, chiggery grapes (*Heliotropium verdcourtii*) was noted in mesic hammocks in the southeastern portion of the property. Epiphytes are common and include long strap fern (*Campyloneurum phyllitidis*), Florida butterfly orchid (*Encyclia tampensis*), golden polypody (*Phlebodium aureum*), resurrection fern (*Pleopeltis michauxiana*), common wild-pine (*Tillandsia fasciculata*), southern needleleaf (*Tillandsia setacea*), Spanish moss (*Tillandsia usneoides*), and shoestring fern (*Vittaria lineata*).

Fire Regimes:

Mesic hammocks burn infrequently due to their landscape position along wetlands, which provide protection from fire. The surrounding uplands likely burned every 2 to 4 years, with fires only occasionally spreading into mature hammocks. Hammock islands in the slough marsh were likely even more protected from fire.

Management Needs:

Management goals for historically mesic hammock areas will focus on exotic species removal and monitoring. Brazilian pepper and Caesar's weed are the most important exotic plants to control in the hammocks.

F. Slough Marsh**Description:**

Slough marsh is a primarily herbaceous community growing in a narrow to broad shallow channel with intermittently flowing water in flat sandy landscapes. Grasses, sedges, and emergent herbs dominate the mainly treeless landscape. Vegetation is found in zones based on length of hydroperiod and depth of flooding. Frequently flooded areas of slough marsh are often dominated by species such as pond apple (*Annona glabra*), sawgrass (*Cladium jamaicense*), pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lanceolata*), common buttonbush (*Cephalanthus occidentalis*), alligatorflag (*Thalia geniculata*), and cattail (*Typha domingensis*). Drier marsh zones with less peat accumulation are dominated by blue maidencane (*Panicum hemitomon*) and Tracy's beaksedge (*Rhynchospora tracyi*), narrowfruit horned beaksedge (*Rhynchospora inundata*), Baldwin's nutrush (*Scleria baldwinii*), lemon bacopa (*Bacopa caroliniana*), tenangle pipewort (*Eriocaulon decangulare*), bladderworts (*Utricularia* spp.), yellow-eyed grass (*Xyris* spp.), and water cowbane (*Tiedemannia filiformis* ssp. *filiformis*). Woody species are generally low in cover and include peelbark St. John's wort (*Hypericum fasciculatum*) and water toothleaf (*Stillingia aquatica*).

Slough marsh (also known as Okaloacoochee Slough) runs through the entire length of OSSF, dominating much of the central and southern landscape. On the 1940s aerials, slough marsh has a medium to dark gray, smooth signature.

Current Conditions:

Currently, the slough marsh bisecting OSSF is disturbed by artificial canals, ditches, roadways, and exotic species. Despite these disturbances, the slough marsh retains most of its natural appearance and function. The slough marsh is dominated by sawgrass with scattered, deep, peat-accumulated pockets of coastalplain willow (*Salix caroliniana*), pond apple (*Annona glabra*), pickerelweed (*Pontederia cordata*), bulltongue arrowhead (*Sagittaria lanceolata*), common buttonbush (*Cephalanthus occidentalis*), alligatorflag (*Thalia geniculata*), cattail (*Typha domingensis*), and the invasive Peruvian primrose willow (*Ludwigia peruviana*). In the shallower areas of the slough marsh where sawgrass is absent, a variety of intermediate to high marsh species occur, including blue maidencane (*Panicum hemitomon*), Tracy's beaksedge (*Rhynchospora tracyi*), chestnutleaf falsecrotton (*Caperonia castaneifolia*), bluejoint panicum (*Coleataenia tenera*), southern umbrellasedge (*Fuirena scirpoidea*), Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*), rosy camphorweed (*Pluchea baccharis*), narrowfruit horned beaksedge (*Rhynchospora inundata*), water toothleaf (*Stillingia aquatica*), Baldwin's nutrush (*Scleria baldwinii*), lemon bacopa (*Bacopa caroliniana*), tenangle pipewort (*Eriocaulon decangulare*), bladderworts (*Utricularia* spp.), yellow-eyed grasses (*Xyris* spp.), clustered bushmint (*Hyptis alata*), water cowbane (*Tiedemannia filiformis* ssp. *filiformis*), and piedmont marshelder (*Iva microcephala*). Shrubs

such as southern bayberry (*Morella cerifera*) and peelbark St. John's wort (*Hypericum fasciculatum*) are often present along the shallow marsh edges.

Exotic species such as Peruvian primrose willow (*Ludwigia peruviana*), Brazilian pepper (*Schinus terebinthifolius*), torpedo grass (*Panicum repens*), Old-World climbing fern (*Lygodium microphyllum*), and Wright's nutrush (*Scleria lacustris*) can be found in the slough marsh along edges or in heavily disturbed areas.

Fire Regimes:

As in other wetland communities, the frequency of fire in slough marshes is a function of the fire frequency in the surrounding matrix community, as well as the fire-carrying characteristics of the marsh vegetation itself. Fires in the early wet season will have a better chance of burning into the deep, peat-accumulated centers, controlling the buildup of peat and encroachment of coastalplain willow. Fire should be introduced into sloughs as often as possible and on average every 1-10 years.

Management Needs:

Management goals should focus on the removal of invasive plant species, controlling coastalplain willow growth, and, where feasible, hydrological restoration. Removal of exotic species is critical to maintaining native species diversity, and managers should monitor exotic species occurrences to determine if eradication efforts are working. Limited control of willows can be accomplished using herbicides, but this work is expensive and difficult to do.

G. Strand Swamp

Description:

Strand swamp is a shallow, forested, usually elongated depression or channel situated in a trough within a flat limestone plain and dominated primarily by bald cypress (*Taxodium distichum*). Smaller strand swamps and shallow edges may instead contain pond cypress (*T. ascendens*).

The variable woody understory contains a mixture of temperate and tropical elements, mainly red maple (*Acer rubrum*), pond apple (*Annona glabra*), swamp laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*), strangler fig (*Ficus aurea*), swamp bay (*Persea palustris*), sweetbay (*Magnolia virginiana*), coastalplain willow (*Salix caroliniana*), wax myrtle (*Myrica cerifera*), myrsine (*Myrsine cubana*), and common buttonbush (*Cephalanthus occidentalis*). Herbs include string lily (*Crinum americanum*), giant leather fern (*Acrostichum danaeifolium*), toothed midsorus fern (*Telmatoblechnum serrulatum*), royal fern (*Osmunda regalis* var. *spectabilis*), and sawgrass (*Cladium jamaicense*). Vines such as eastern poison ivy (*Toxicodendron radicans*) and white twinevine (*Funastrum clausum*) may be common. The warm, humid climate in strand swamps make it ideal habitat for epiphytic orchids and bromeliads.

Historically strand swamp occurred in the southeastern portion of the property, mostly as long linear borders between uplands and the slough marsh. On the 1940s aerials, strand swamps have a light grey, textured signature.

Current Conditions:

The majority of strand swamp on OSSF is in remote parts of the forest. The limited areas that were surveyed have a closed canopy of pond cypress (*Taxodium ascendens*). Occasional subcanopy trees include dahoon (*Ilex cassine*), myrsine (*Myrsine cubana*), and cabbage palm (*Sabal palmetto*). The shrub layer is open with scattered dahoon, myrsine, and southern bayberry (*Morella cerifera*). Herbs are sparse and include spadeleaf (*Centella asiatica*), sawgrass (*Cladium jamaicense*), toothed midsorus fern (*Telmatoblechnum serrulatum*), and Virginia chain fern (*Woodwardia virginica*). The invasive Old-World climbing fern (*Lygodium microphyllum*) was noted in two areas of strand swamp. Epiphytes are common and include common wild-pine (*Tillandsia fasciculata*), southern needleleaf (*Tillandsia setacea*), and Spanish moss (*Tillandsia usneoides*).

Strand swamp on OSSF has nearly tripled in size since the 1940s, replacing several hundred acres of historic slough marsh on the property.

Fire Regimes:

Fire occurs rarely in strand swamps, with the largest trees on the deepest peat towards the center of the strand burning least frequently every 20-50 years. However, fires from bordering pine-dominated communities can frequently burn into the outer edges of strand swamps every 5-10 years.

Management Needs:

Management goals should focus on the removal of invasive species such as Old-World climbing fern and Brazilian pepper. Both of these species have the potential to crowd out native plants and form large monocultures. In order to maintain a natural ecotone between strand swamp and surrounding communities, fires should be allowed to extinguish naturally in the edge of the swamp when possible.

H. Wet Flatwoods**Description:**

Wet flatwoods in this area are characterized as southern pine forests consisting of a canopy of scattered to dense, mature pine trees with a fire-maintained, sparse understory and dense ground cover of hydrophytic herbs.

Wet flatwoods on OSSF historically occurred in areas near wetlands that were inundated more frequently than the surrounding mesic flatwoods but were not too wet to prevent pine establishment. Wet flatwoods have an open south Florida slash pine canopy with an open understory of younger pines. Shrubs are sparse and consist of southern bayberry (*Morella cerifera*), peelbark St. John's wort (*Hypericum fasciculatum*), and myrtle leaf St. John's Wort (*Hypericum myrtifolium*). Herbaceous species cover is relatively high and consists primarily of wiregrass (*Aristida stricta*), gulfdune paspalum (*Paspalum monostachyum*), and hairawn muhly (*Muhlenbergia capillaris*), and a diversity of other grasses, sedges, and forbs. On the 1940s aerials, wet flatwoods have a smooth light to medium gray signature and are dotted with dark pine trees.

Current Conditions:

Most of the historic wet flatwoods found on OSSF show a history of fire exclusion. The canopy is open with south Florida slash pine (*Pinus elliottii* var. *densa*). The subcanopy is open to moderately dense with dahoon (*Ilex cassine*), live oak (*Quercus virginiana*), and cabbage palm (*Sabal palmetto*). The shrub layer is dominated southern bayberry (*Morella cerifera*). Other shrub species include groundsel tree (*Baccharis halimifolia*), roundpod St. John's wort (*Hypericum cistifolium*), peelbark St. John's wort (*Hypericum fasciculatum*), gallberry (*Ilex glabra*) Peruvian primrosewillow (*Ludwigia peruviana*), myrsine (*Myrsine cubana*), Brazilian pepper (*Schinus terebinthifolia*). Small mesic flatwoods islands, dominated by saw palmetto (*Serenoa repens*), are common inclusions in wet flatwoods throughout the property.

The herbaceous layer is often weedy but can be diverse. Typical herbs include blue maidencane (*Amphicarpum muehlenbergianum*), purple bluestem (*Andropogon glomeratus* var. *glaucopsis*), big carpetgrass (*Axonopus furcatus*), spadeleaf (*Centella asiatica*), sawgrass (*Cladium jamaicense*), swamp flatsedge (*Cyperus ligularis*), witchgrasses (*Dichanthelium* sp.), Virginia buttonweed (*Diodia virginiana*), pink sundew (*Drosera capillaris*), tenangle pipewort (*Eriocaulon decangulare*), semaphore thoroughwort (*Eupatorium mikanioides*), Mohr's thoroughwort (*Eupatorium mohrii*), pineland heliotrope (*Euploca polyphylla*), flattop goldenrod (*Euthamia caroliniana*), narrowleaf yellowtops (*Flaveria linearis*) skyflower (*Hydrolea corymbosa*), clustered bushmint (*Hyptis alata*), Piedmont marshelder (*Iva microcephala*), Virginia saltmarsh mallow (*Kosteletzkya pentacarpos*), axilflower (*Mecardonia acuminata*), rosy camphorweed (*Pluchea baccharis*), yellow milkwort (*Polygala rugelii*), starrush white-top (*Rhynchospora colorata*), fascicled beaksedge (*Rhynchospora fascicularis*), toothed midsorus fern (*Telmatoblechnum serrulatum*), chain fern (*Woodwardia virginica*), and yellow-eyed grasses (*Xyris* sp.). Torpedo grass (*Panicum repens*) can be abundant, especially along old roads running through the flatwoods.

Wet flatwoods that have been maintained by prescribed or natural fires can be found and consist of an open canopy of south Florida slash pine, with a subcanopy of younger pines. The shrub layer is typically sparse but can be abundant and dominated by southern bayberry in some areas. Herbs are the dominant component, and include wiregrass (*Aristida stricta*), bluejoint panicum (*Coleataenia tenera*), button rattlesnakemaster (*Eryngium yuccifolium*), falsefennel (*Eupatorium leptophyllum*), alligatorlily (*Hymenocallis palmeri*), Florida yellow flax (*Linum floridanum*), hairawn muhly (*Muhlenbergia capillaris*), largeflower rosegiant (*Sabatia grandiflora*), white sunnybell (*Schoenolirion albiflorum*), and beaksedges (*Rhynchospora* spp.).

Fire Regimes:

Historically, natural fires likely occurred every 3-10 years in wet flatwood communities. Many of the historic wet flatwoods that have been fire-suppressed may benefit from annual or biannual prescribed burns during late spring or early summer to reduce the shrubby component to desired levels.

Management Needs:

Management goals for wet flatwoods should focus on reintroduction of frequent fire to fire-

suppressed areas, maintenance of areas that have been frequently burned, and exotic species removal and monitoring. Historic wet flatwood areas that have not been burned in the past 10 years will benefit from annual or biannual summer burns, as stated above, with burning during the winter/early spring much more likely and feasible. Wet flatwoods that have burned in the past 10 years should be placed on a 3–10-year fire-return interval to maintain desirable shrub and herb covers. Removal of exotic species, mainly torpedo grass, is important to restoring and preserving wet flatwood communities. Pine planting, timber stand improvement through forestry mowing and roller chopping, and timber thinning operations will be conducted to maintain forest health, limit the occurrence of forest pests and diseases, and to allow for additional natural regeneration.

I. Wet Prairie

Description:

Wet prairie is an herbaceous community found on continuously wet, but not inundated, soils on somewhat flat or gentle slopes between lower-lying marshes and slightly higher wet or mesic flatwoods. Trees and shrubs are absent or very sparse. The herbaceous layer is often dominated by wiregrass (*Aristida stricta*), gulfdune paspalum (*Paspalum monostachyum*), or hairawn muhly (*Muhlenbergia capillaris*), and a diversity of other grasses, sedges, and forbs.

Wet prairies on OSSF occur as transitional areas between wetlands or between a wetland and uplands (identified by a smooth grayish or whitish signature in the 1940s aerials).

Current Conditions:

Currently, wet prairies on OSSF are underrepresented since many have been converted in the past to agricultural fields. Most of these converted areas are currently mapped as abandoned field/abandoned pasture, successional hydric shrubland, or invasive exotic monoculture and are dominated by torpedo grass (*Panicum repens*).

There are some examples of intact wet prairie throughout the property. The intact wet prairies are open, treeless areas dominated by a diverse assemblage of herbs with scattered shrubs. south Florida slash pines (*Pinus elliottii* var. *densa*) are sparse. Shrubs are generally sparse as well and include common buttonbush (*Cephalanthus occidentalis*), peelbark St. John's wort (*Hypericum fasciculatum*), gallberry (*Ilex glabra*), southern bayberry (*Morella cerifera*), and water toothleaf (*Stillingia aquatica*). Small circular elevated islands dominated by saw palmetto (*Serenoa repens*) are common in these prairies.

The herb layer is dominated by grasses, sedges, and rushes including blue maidencane (*Amphicarpum muehlenbergianum*), longleaf threeawn (*Aristida palustris*), wiregrass (*Aristida stricta*), wrinkled jointgrass (*Coelorachis rugosa*), bluejoint panicum (*Coleataenia tenera*), erectleaf witchgrass (*Dichantherium erectifolium*) hairawn muhly (*Muhlenbergia capillaris*), narrowfruit horned beaksedge (*Rhynchospora inundata*), white-top sedge (*Rhynchospora latifolia*), south Florida little bluestem (*Schizachyrium rhizomatum*), sand cordgrass (*Spartina bakeri*), and saltmeadow cordgrass (*Spartina patens*). Other herbs include longleaf milkweed (*Asclepias longifolia*), chestnutleaf falsecroton (*Caperonia castaneifolia*), spadeleaf (*Centella asiatica*), southeastern sneezeweed (*Helenium pinnatifidum*), alligatorlily (*Hymenocallis palmeri*), clustered bushmint (*Hyptis alata*), rosy

camphorweed (*Pluchea baccharis*), white sunnybell (*Schoenolirion albiflorum*), and water cowbane (*Tiedmannia filiformis* ssp. *filiformis*).

Fire Regimes:

Historically, lightning ignited fires swept across wet prairies every 2-3 years. These fires likely burned completely through the community, with the high percentage of wiregrass and other wiry herbs facilitating spread of the fire. The converted wet prairies will need intense restoration efforts before prescribed fire can be used as a management tool as these areas are dominated by torpedo grass that does not readily burn.

Management Needs:

Management goals should focus on the restoration of converted wet prairies and the preservation of intact wet prairies. Restoration of converted wet prairies should begin by removing woody vegetation, mainly southern bayberry, followed by treatment of exotic species, mainly torpedo grass. The re-establishment of native species such as wiregrass and hairawn muhly will allow prescribed burns to be applied. Preservation of intact wet prairies should involve prescribed burns every 2 to 4 years and the monitoring/removal of exotic species.

J. Managed Landcover Type

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 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 the state forests is conducted at a low level of intensity that further ensures compatibility with other management goals and objectives.

1. Pine Plantation

Desired Future Condition:

Pine plantations mapped on OSSF are historic mesic and wet flatwoods and have desired future conditions matching those communities.

Current Conditions:

Pine plantations have a dense or thinned canopy of south Florida slash pine (*Pinus elliottii* var. *densa*). The subcanopy includes younger slash pines, cabbage palm (*Sabal palmetto*), and dahoon (*Ilex cassine*). The shrub layer is often tall and impenetrable, especially in long unburned historic mesic flatwoods. Typical shrubs include saw palmetto (*Serenoa repens*), peelbark St. John's wort (*Hypericum fasciculatum*), gallberry (*Ilex glabra*), coastalplain staggerbush (*Lyonia fruticosa*), southern bayberry (*Morella cerifera*), myrsine (*Myrsine cubana*), swamp bay (*Persea palustris*), and winged sumac (*Rhus copallinum*).

The herbaceous layer may be sparse to absent, depending on the density of the shrub layer. Herbs include big carpetgrass (*Axonopus furcatus*), witchgrasses (*Dichanthelium* spp.), Mohr's thoroughwort (*Eupatorium mohrii*), whitehead bogbutton (*Lachnocaulon anceps*),

torpedo grass (*Panicum repens*), rosy camphorweed (*Pluchea baccharis*), orange milkwort (*Polygala lutea*), bracken fern (*Pteridium aquilinum*), blackroot (*Pterocaulon pycnostachyum*), yellow hatpins (*Syngonanthus flavidulus*), Caesar's weed (*Urena lobata*), and Virginia chain fern (*Woodwardia virginica*).

Fire Regimes:

Refer to the historic community – mainly mesic flatwoods. Historic pyrogenic communities may require more frequent fire in the beginning than is typical for the historic natural community in the range of every 3 to 5 years.

Management Needs:

In historic pine flatwoods, thinning of the pine stand will promote more herbaceous cover in the understory, and the planting of wiregrass, as well as frequent prescribed burns, may be necessary in some areas to move the community towards a more natural structure and composition. Pine planting, timber stand improvement through forestry mowing and roller chopping, and timber thinning operations will be conducted to maintain forest health, limit the occurrence of forest pests and diseases, and to allow for additional natural regeneration.

K. Other Altered Landcover Types

Desired Future Condition:

Altered landcover types are areas where the natural community has been overwhelmingly altered as a result of human activity. Pine plantation is described above.

The altered landcover types described in this section are often not appropriate areas for restoration. If restoration is desired, the target future condition of the altered habitat 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:

Altered landcover types on OSSF include abandoned fields/abandoned pastures, artificial, ponds, canals/ditches, clearings, developed areas, invasive exotic monocultures, roads, successional hardwood forest, and successional hydric shrubland.

Abandoned Field / Abandoned Pasture (236 acres) – Abandoned fields or pastures are defined as old fields, fallow pastures, early successional areas formerly grazed or in agriculture without recent activity to maintain the area as pasture or planted field. On OSSF, this community is mapped within areas of historic wet prairie, slough marsh, and flatwoods that had been converted for agricultural use in the past and are no longer maintained. The canopy is typically absent or with scattered live oak (*Quercus virginiana*) and cabbage palm (*Sabal palmetto*). Shrubs may be moderate to dense and include groundsel tree (*Baccharis halimifolia*), Peruvian primrosewillow (*Ludwigia peruviana*), and southern bayberry (*Morella cerifera*). The herb layer may be dominated by torpedo grass (*Panicum repens*) or contain a mix of invasive and/or weedy herbs, including broomsedge bluestem (*Andropogon virginicus*), dogfennel (*Eupatorium capillifolium*), slender flattop goldenrod (*Euthamia*

caroliniana), limpograss (*Hemarthria altissima*), manyflower marshpennywort (*Hydrocotyle umbellata*), West Indian marsh grass (*Hymenachne amplexicaulis*), and foxtail (*Setaria sp.*).

Canal / Ditch (153 acres) – Canals and ditches are artificial linear drainage ways. Canals are mapped along the northwestern property boundary, along Keri Road, and through the slough marsh. The invasive Peruvian primrosewillow (*Ludwigia peruviana*) is commonly found in the deep canals and more recently, Old-World climbing fern has been spotted on a more frequent basis.

Clearing (36 acres) - These are cleared or otherwise unnatural openings. These will be managed with the surrounding stands and restoration may be undertaken as a plan is developed and funding comes available.

Developed (48 acres) – Office, Shop, Residential with associated lawn areas, Grass Helipad, Check station, parking areas, campgrounds, and other recreation areas.

Invasive Exotic Monoculture (129 acres) – Invasive exotic monocultures are stands of invasive exotic plant species that have eliminated the native vegetation, or nearly so. These areas are mapped in historic wet prairie and slough marsh that were previously converted to agricultural fields and are now nearly solid stands of torpedo grass (*Panicum repens*).

Road (208 acres) – Roads are areas that are maintained by FFS and used for vehicular traffic. This includes two-tracks used regularly by area staff to access and manage the state forest regardless of public accessibility.

Successional Hardwood Forest (1,453 acres) – Successional hardwood forests mapped on OSSF are historic mesic and wet flatwoods and have desired future conditions (DFC)s matching those communities.

Successional hardwood forests are closed-canopied forests, typically dominated by fast growing hardwoods such as laurel oak (*Quercus hemisphaerica*), water oak (*Quercus nigra*), and/or sweetgum (*Liquidambar styraciflua*), often with remnant pines. On OSSF, successional hardwood forests are very similar in appearance to mesic hammocks, due to live oak (*Quercus virginiana*) and/or cabbage palm (*Sabal palmetto*) being the dominant canopy species. These hardwood forests have developed in historic mesic or wet flatwoods that have undergone extensive fire exclusion. This transition has occurred throughout the property, particularly in areas of flatwoods that jut out into the slough marsh and are surrounded by wetlands or historic flatwoods islands completely surrounded by slough marsh. Some historic mesic hammocks that border flatwoods have since expanded into those flatwoods, due to fire suppression. Those expansions are also mapped as successional hardwood forests.

Successional hardwood forests on OSSF have a semi-closed to closed canopy of live oak and cabbage palm, with occasional remnant south Florida slash pine (*Pinus elliottii var. densa*). If the canopy is still partially open, understory shrubs are generally the same species as are found in mesic or wet flatwoods. If the canopy is closed, shrubs may be absent or nearly so. Typical shrubs include saw palmetto (*Serenoa repens*) and myrsine (*Myrsine cubana*). Herbs are not abundant due to shading cast by overstory oaks and shrubs. Epiphytes are common

and include golden polypody (*Phlebodium aureum*), resurrection fern (*Pleopeltis michauxiana*), common wild-pine (*Tillandsia fasciculata*), southern needleleaf (*Tillandsia setacea*), and Spanish moss (*Tillandsia usneoides*).

Successional Hydric Shrubland (996 acres) – Successional hydric shrublands mapped in OSSF are historic slough marsh, wet prairies, or wet flatwoods and have DFCs matching those communities.

Successional hydric shrubland/forest are fire excluded or disturbed areas that are dominated by fast growing hydrophilic hardwoods such as southern bayberry (*Morella cerifera*) and groundsel tree (*Baccharis halimifolia*). Weedy vines such as smilax (*Smilax* spp.) and muscadine (*Vitis rotundifolia*) are often common in the shrub layers. These shrubland/forests may invade herbaceous habitats (i.e., wet prairie, wet flatwoods, seepage slope, depression marsh, basin marsh, floodplain marsh, slough marsh) due to lengthy fire-suppression and/or hydrological alterations. Although some shifts in community type may be better described with a natural community designation, the use of “successional hydric shrubland” is suitable to label areas that are known to be highly disturbed and altered, and where restoration efforts of hydrology restoration and/or re-introduction of fire would be particularly beneficial.

Successional hydric shrublands on OSSF typically lack a canopy or have scattered live oak (*Quercus virginiana*) and cabbage palm (*Sabal palmetto*). The shrub layer is typically dense with invasives and/or hydrophilic hardwoods including groundsel tree, Peruvian primrosewillow (*Ludwigia peruviana*), southern bayberry, and Brazilian pepper (*Schinus terebinthifolia*). Typical herbs are invasive, weedy, or remnant natives from the historic community and include common ragweed (*Ambrosia artemisiifolia*), chestnutleaf falsecroton (*Caperonia castaneifolia*), spadeleaf (*Centella asiatica*), fireweed (*Erechtites hieraciifolius*), dogfennel (*Eupatorium capillifolium*), fingergrass (*Eustachys* sp.), clustered bushmint (*Hyptis alata*), climbing hempvine (*Mikania scandens*), torpedo grass (*Panicum repens*), rosy camphorweed (*Pluchea baccharis*), pickerelweed (*Pontederia cordata*), foxtail (*Setaria* sp.), toothed midsorus fern (*Telmatoblechnum serrulatum*), and Virginia chain fern (*Woodwardia virginica*).

Fire Regimes:

Fires would have historically crossed these altered landscapes when the surrounding natural communities burned.

Management Needs:

Roads and developed areas will remain as is. Patrolling for invasive plants is important to limit the spread of these along these corridors should fill be imported for road or building maintenance. The areas that are abandoned fields/pasture and invasive monoculture will be managed alongside surrounding natural communities. There has been some success in planting areas over-run by torpedo grass with bald cypress trees, but there are still no known control methods that will work for torpedo grass in south Florida, so full restoration may not be possible. Invasive plant treatments will continue along with the planting of appropriate trees, shrubs, and understory species on each site depending on water levels and hydroperiod.

Canals and ditches will receive invasive plant treatments and control of willow growth as necessary, and funds allow.

VIII. References

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United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey. Soil Survey Area: Volusia County, Florida; Survey Area Data: Version 20, Aug 27, 2021. Retrieved from <https://websoilsurvey.sc.egov.usda.gov>.

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IX. Glossary of Abbreviations

ARCAcquisition and Restoration Council
ALICOAtlantic Land Improvement Company, Inc.
BIA.....U.S. Bureau of Indian Affairs
BMPBest Management Practice
CARL.....Conservation and Recreation Lands Acquisition Program
CUP.....Consumption Use Permit
DEP.....Department of Environmental Protection
DHR.....Division of Historical Resources
DRP.....Division of Recreation and Parks
EPA.....U.S. Environmental Protection Agency
FAA.....Federal Aviation Administration
F.A.C.....Florida Administrative Code
FDACS.....Florida Department of Agriculture and Consumer Services
FFS.....Florida Forest Service

FNAI	Florida Natural Areas Inventory
FPL.....	Florida Power and Light
F.S.	Florida Statutes
FWC.....	Florida Fish and Wildlife Conservation Commission
NRCS	Natural Resources Conservation Service
SFWMD	South Florida Water Management District
SOR	Save Our Rivers Acquisition Program
OALE.....	DACS Office of Agricultural Law Enforcement
OFW.....	Outstanding Florida Waters
OSSF	Okaloacoochee Slough State Forest
TIITF.....	Board of Trustees of the Internal Improvement Trust Fund
USFWS	United States Fish and Wildlife Service
WIAM.....	Wetland Impact Avoidance and Mitigation
WMA	Wildlife Management Area

OKALOACOOCHEE SLOUGH
STATE FOREST
2025 LAND MANAGEMENT PLAN

EXHIBITS

Exhibit A

Ten-Year Management Accomplishment Summary

Okaloacoochee Slough State Forest
10-Year Accomplishments

Site Preparation	Chop Single Pass	No.	1,425
	Disk/Raking	Acres	181
	Mowing	Acres	555
	Other	Acres	6

Planting	Slash Containerized	No.	325,000
		Acres	525
	Longleaf Bareroot	No.	325,000
		Acres	525
	Other (Cypress)	No.	4,000
		Acres	10

Seedling survival checks	Survival Checks	Acres	535
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Timber Stand Improvement	Herbicide Treatment	Acres	329
	Mechanical Treatments		
	Mowing	Acres	362
	Chopping	Acres	430

Timber Sales	Marking	Acres	2
	Cruising	Acres	236

Timber Inventory	Inventory Update	Acres	13,765
	Plots	Acres	428

Invasive Control	Brazilian Pepper	Acres	8,309.21
	Caesar Weed	Acres	5,100.34
	Camphor Tree	Acres	0.50
	Cogon Grass	Acres	8,944.26
	Japanese Climbing Fern	Acres	2,997.86
	Jaragua	Acres	50.50
	Melaleuca	Acres	5,776.98
	Other	Acres	7,121.90
	Primrose Willow	Acres	83.55

	Scleria	Acres	1,137.80
	Torpedo Grass	Acres	4,057.83

Fire	Wildfire	No.	10
		Acres	285
	Prescribed Burning	Acres	27,130

Recreation	Day Use Estimated Forest Visitors	No.	1,058,926
	Overnight Primitive Camping	No.	15,860
	Annual Entrance Pass	No.	27
	Commercial Vendor Permits	No.	2

Roadwork	Roads Constructed	Miles	9
	Roads Graded	Miles	581
	Roads Rebuilt	Miles	43.3
	Culverts Installed	No.	11
	Low Water Crossing	No.	16

Boundary Maintenance	Maintenance/Marking	Miles	150
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I&E Activities	Programs/Tours	No.	40
	Radio/TV Articles	No.	39
	Education/Research	No.	36

Other Activities	Road Mowed	Acres	1,181
	Site Maintenance - Mowing	Acres	2,231
	Trails Maintained	Miles	187
	Field Mowed	Acres	19
	Firelines Maintained	Miles	870.5
	Archaeological Sites Recorded	No.	6
	Archaeological Sites Monitored	No.	6
	Hogs Trapped	No.	10

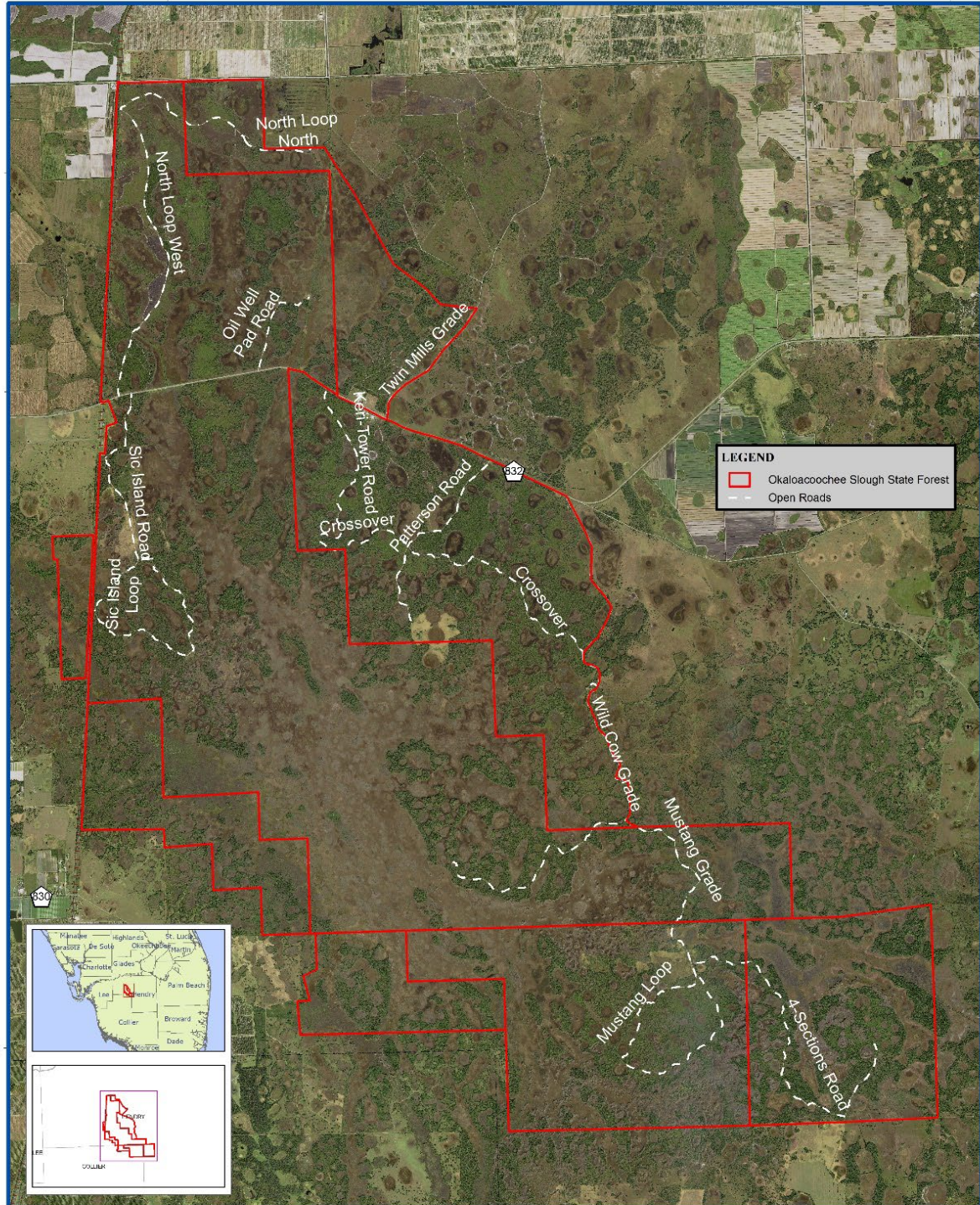
Exhibit B

Boundary and Road Map

Okaloacoochee Slough State Forest

Boundary & Road Map

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

81 $\frac{2}{3}$ of 60[illegible]

8147

Map Month/Year: November 2023

[illegible]

Exhibit C

Optimal Management Boundary Map



Florida Forest Service

Okaloacoochee Slough State Forest

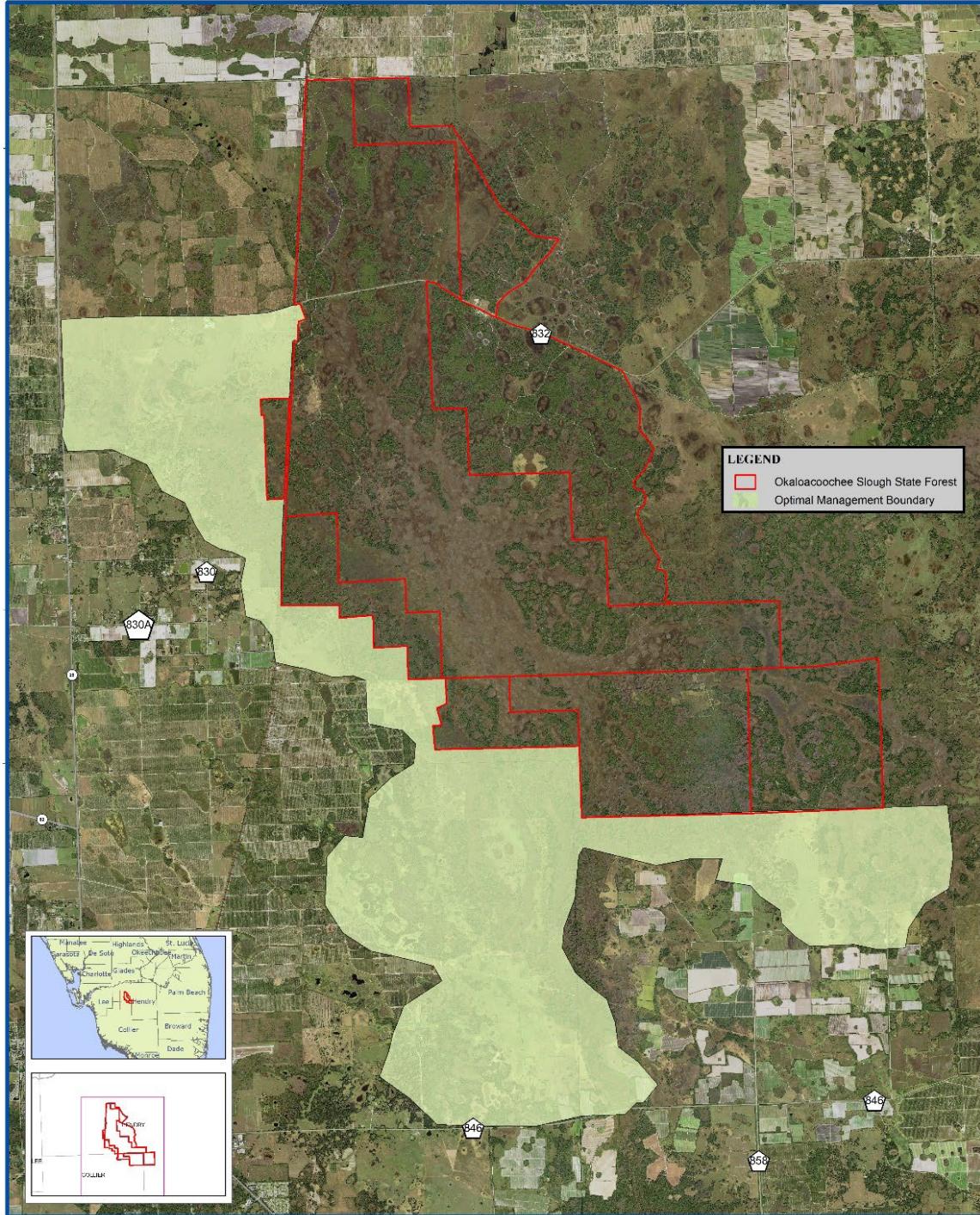
Optimal Boundary Map

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

81° 27' W

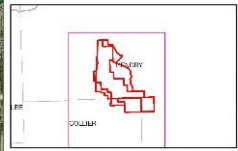
DISCLAIMER:
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BOUNDARY AREA COORDINATES:
The boundary area coordinates are located at the Florida Forest Service, 11111 Highway 1, Palmdale, Florida 33568. The boundary area coordinates are located at the Florida Forest Service, 11111 Highway 1, Palmdale, Florida 33568.



LEGEND

- Okaloacoochee Slough State Forest
- Optimal Management Boundary



0 0.25 0.5 0.75 1 1.25 1.5 1.75 2 2.25 Miles



Map Month/Year: November 2023

1,000 500 0 1,000 2,000 3,000 4,000 5,000 6,000 Yards

Exhibit D

Facilities, Recreation, and Improvements Map



Florida Forest Service

Okaloacoochee Slough State Forest

Facilities, Recreation, and Improvements Map

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

DISCLAIMER:
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VANDERBILT AREA BOUNDARIES:
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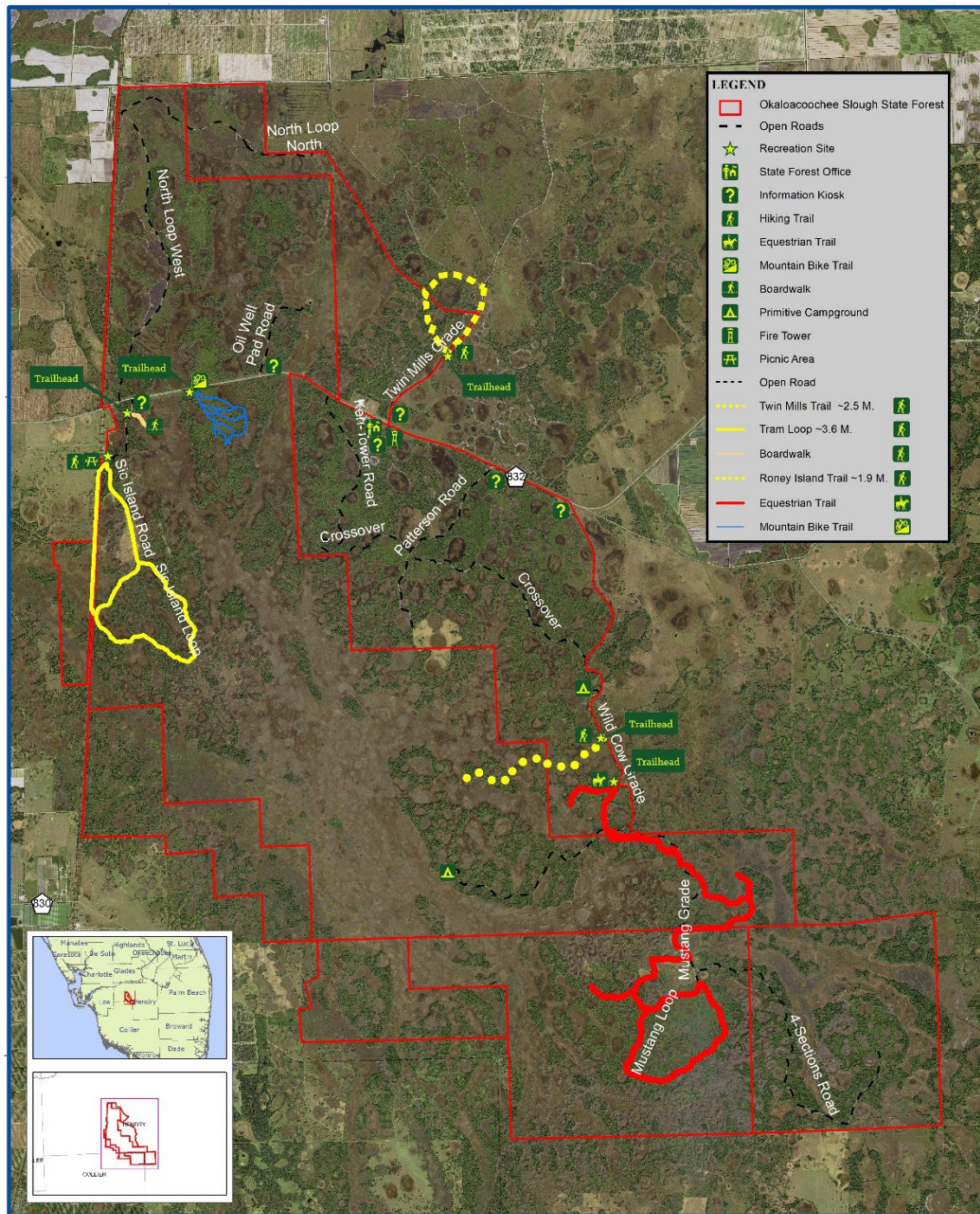


Exhibit E

Tract and Acreage Map



Florida Forest Service

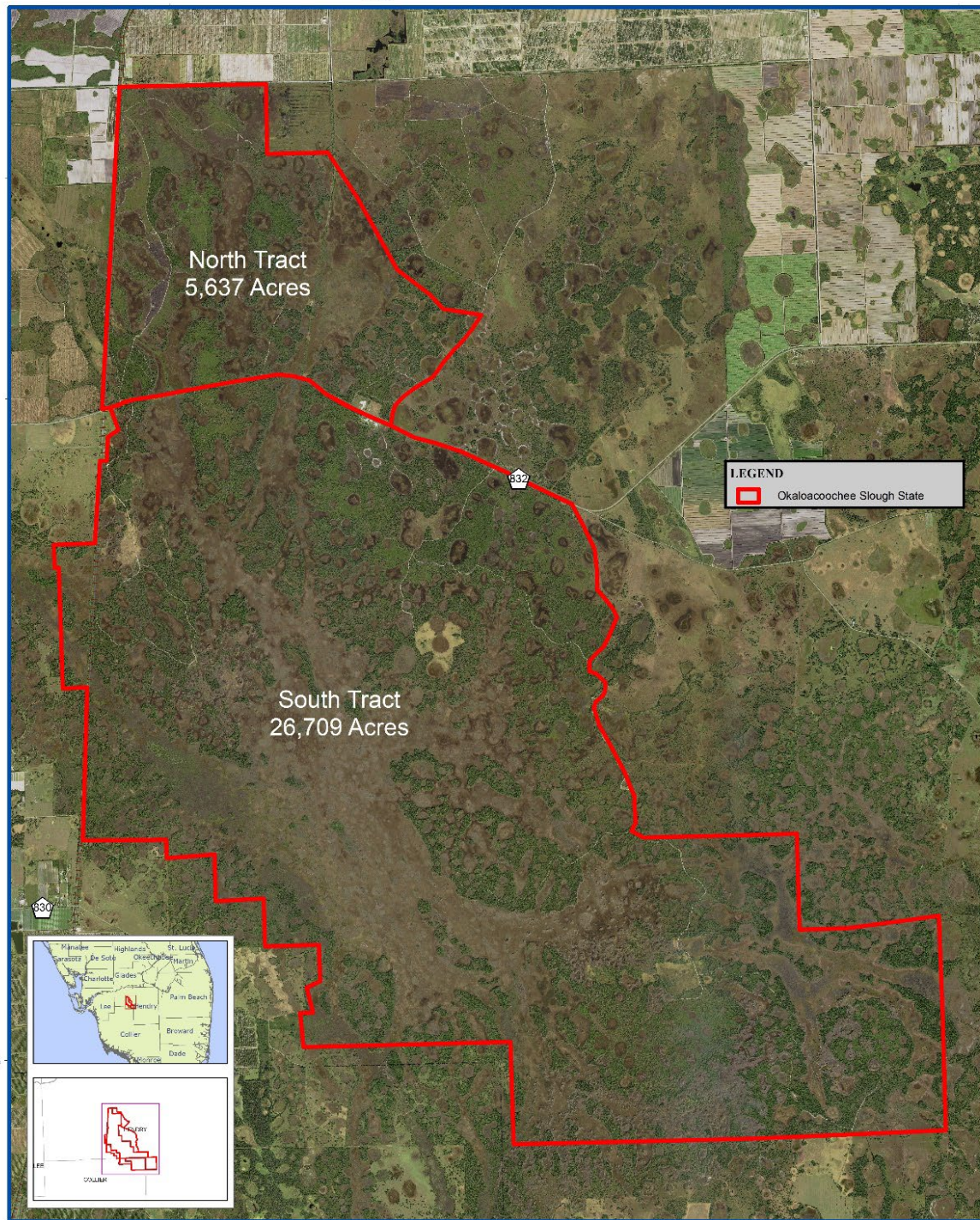
Okaloacoochee Slough State Forest

Tract and Acreage Map

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

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LEGEND:
Okaloacoochee Slough State Forest



0.25 0.5 0.75 1 1.25 1.5 Miles



Map Month/Year: November 2023

1,000 500 0 1,000 2,000 3,000 4,000 Yards

Exhibit F

Proximity
to
Significant Managed Lands Map



Florida Forest Service

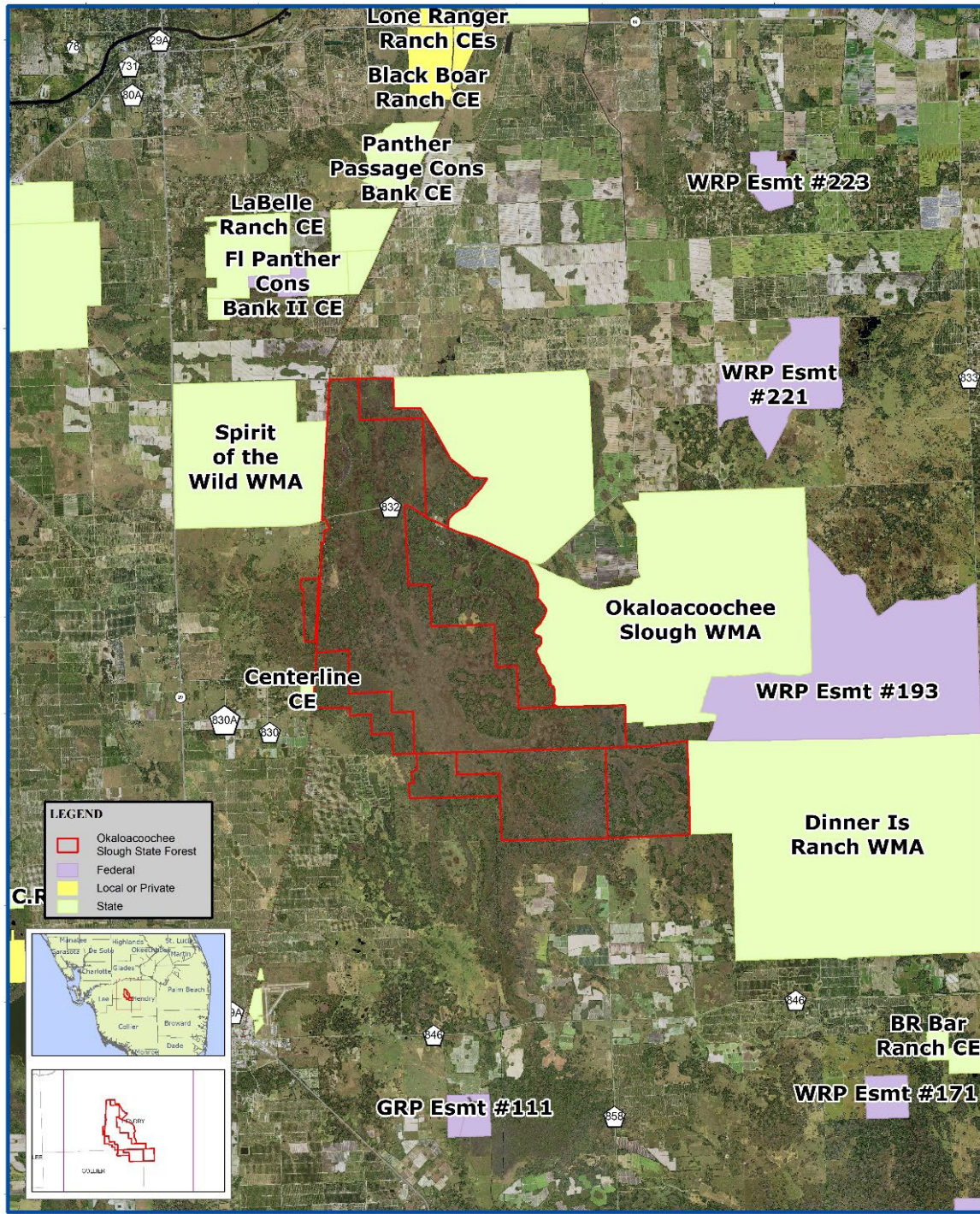
Okaloacoochee Slough State Forest

Proximity to Significant Managed Lands

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

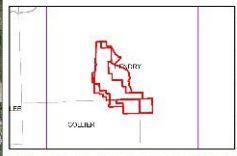
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LEGEND

- Okaloacoochee Slough State Forest
- Federal
- Local or Private
- State



Map Month/Year: November 2024



Exhibit G

Department of State

Report on Archaeological
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.

June 14, 2023

Emily Marsh
Land Management Planner
Florida Forest Service
Florida Department of Agriculture and Consumer Services

In response to your request on June 14, 2023, the Florida Master Site File lists four archeological sites and two resource groups recorded for the Okaloacoochee Slough State Forest's managed area.

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



AR=4
SS=0
CH=0
RG=2
BR=0
Total=6

Cultural Resource Roster

Created: 6/14/2023

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
CR00885	RG	Corduroy Road, Okaloacoochee Slough	Immokalee	Linear Resource		
HN00112	AR	Gumbo Limbo Hammock	Immokalee			
HN00113	AR	Lambers	Immokalee			
HN00152	AR	Dipping Trough, Okaloacooche Slough	Felda			
HN00264	AR	OK SAW MILL	Immokalee			
HN00361	RG	Goodno Drainage Canal	LaBelle	Linear Resource	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 Types Map and Descriptions



Florida Forest Service

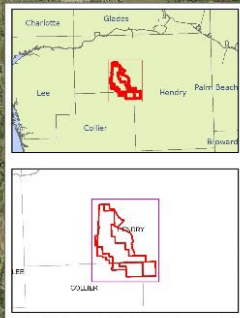
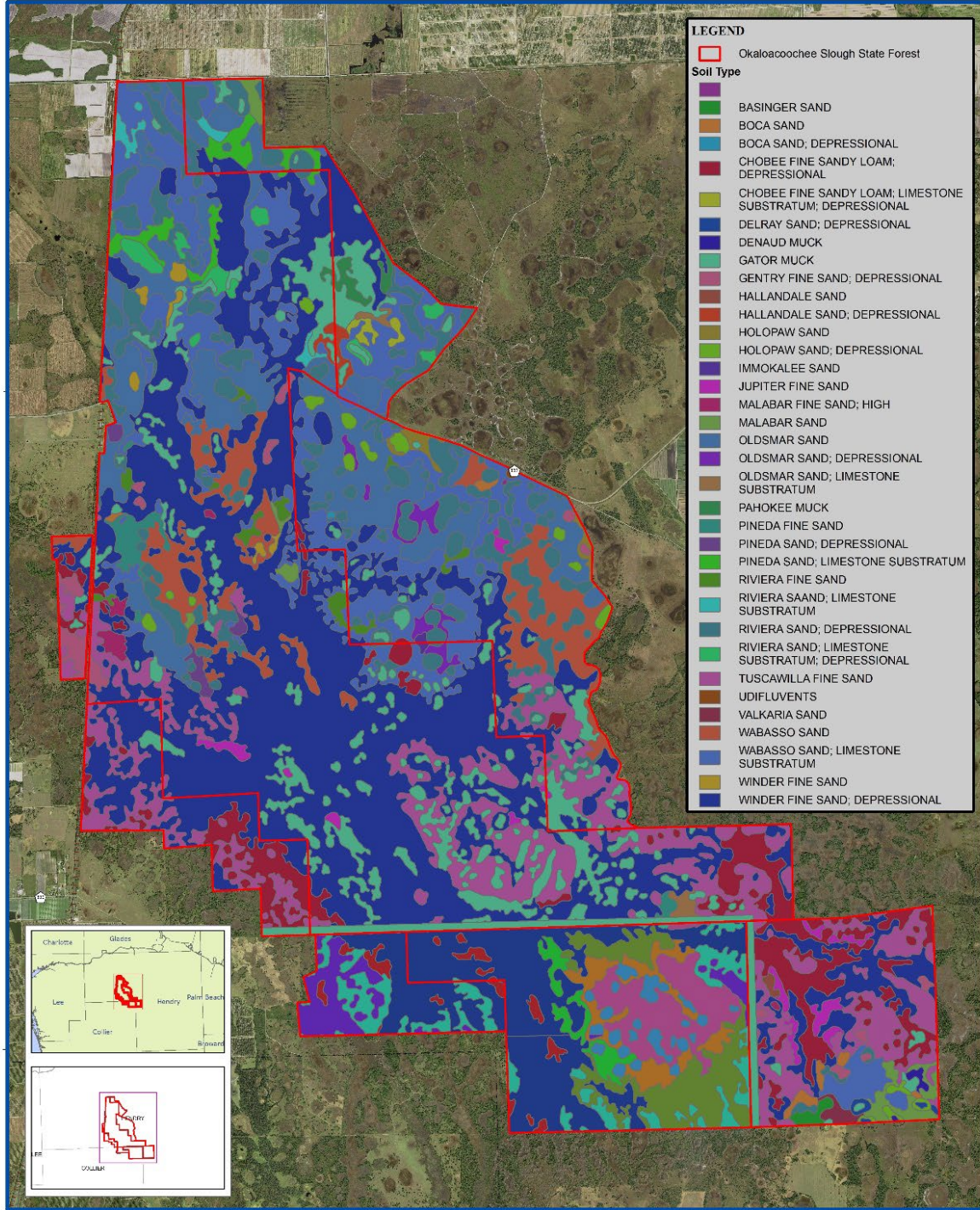
Okaloacoochee Slough State Forest

Soils Map

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

DISCLAIMER:
The data and maps on this map were prepared by the Florida Forest Service and are not to be used for any purpose other than the intended use. The Florida Forest Service does not warrant the accuracy or completeness of the data or maps. The Florida Forest Service does not assume any liability for any errors or omissions. The Florida Forest Service does not assume any liability for any damages or losses resulting from the use of the data or maps.

Legend:
The legend on this map is for informational purposes only. It is not to be used for any purpose other than the intended use. The Florida Forest Service does not warrant the accuracy or completeness of the legend. The Florida Forest Service does not assume any liability for any errors or omissions. The Florida Forest Service does not assume any liability for any damages or losses resulting from the use of the legend.



Map Month/Year: July 2023



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)

Collier County Area, Florida

Map Unit: 16—Oldsmar fine sand, 0 to 2 percent slopes

Component: Oldsmar (85%)

The Oldsmar component makes up 85 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 low. Available water to a depth of 60 inches (or restricted depth) is moderate. 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Malabar (5%)

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

Component: Basinger (3%)

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

Component: Nettles (3%)

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

Component: Cypress Lake (2%)

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

Component: Pineda (2%)

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

Map Unit: 22—Chobee, Winder, Gator soils, frequently ponded, 0 to 1 percent slopes

Component: Chobee (31%)

The Chobee component makes up 31 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 6 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: Gator (28%)

The Gator component makes up 28 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy and loamy 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 75 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: Winder (26%)

The Winder component makes up 26 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions 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 very poorly drained. Water movement in the most restrictive layer is moderately low. 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Pineda (8%)

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

Component: Riviera (7%)

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

Map Unit: 23—Holopaw-Okeelanta, frequently ponded, association, 0 to 1 percent slopes

Component: Holopaw, limestone substratum (48%)

The Holopaw, limestone substratum component makes up 48 percent of the map unit. Slopes are 0 to 1 percent. This component is on marine terraces on coastal plains, depressions. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 50 to 79 inches. The natural drainage class is very 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. 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: Okeelanta (42%)

The Okeelanta component makes up 42 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over 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 high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 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: Gator (5%)

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

Component: Basinger (5%)

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

Map Unit: 25—Cypress Lake-Riviera-Copeland fine sands, frequently ponded, association, 0 to 1 percent slopes

Component: Cypress Lake (31%)

The Cypress Lake component makes up 31 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 49 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Riviera, limestone substratum (30%)

The Riviera, limestone substratum component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 31 to 80 inches. The natural drainage class is very 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 low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Copeland (29%)

The Copeland component makes up 29 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 40 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October, November. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 10 percent. 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: Dania (3%)

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

Component: Basinger (3%)

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

Component: Gator (2%)

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

Component: Brynwood (2%)

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

Map Unit: 28—Pineda-Riviera fine sands association, 0 to 2 percent slopes

Component: Pineda (45%)

The Pineda component makes up 45 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 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. 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: Riviera (40%)

The Riviera component makes up 40 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 July, August, September, October. Organic matter content in the surface horizon is about 1 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: Malabar (5%)

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

Component: Cypress Lake (3%)

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

Component: Pinellas (3%)

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

Component: Oldsmar (3%)

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

Component: Basinger (1%)

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

Map Unit: 29—Wabasso fine sand, 0 to 2 percent slopes

Component: Wabasso (85%)

The Wabasso component makes up 85 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 high. Available water to a depth of 60 inches (or restricted depth) is moderate. 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Myakka (4%)

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

Component: Riviera (4%)

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

Component: Basinger (3%)

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

Component: Malabar (2%)

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

Component: Felda (1%)

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

Component: Pinellas (1%)

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

Map Unit: 31—Hilolo, Jupiter, Jenada fine sands and 0 to 2 percent slopes

Component: Hilolo, limestone substratum (31%)

The Hilolo, limestone substratum component makes up 31 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces, coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 30 to 80 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 low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 2 percent. 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: Jupiter (30%)

The Jupiter component makes up 30 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 marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 5 to 18 inches. The natural drainage class is poorly 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 6 inches during July, August, September, October. 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: Jenada (29%)

The Jenada component makes up 29 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 marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 14 to 46 inches. The natural drainage class is poorly 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 6 inches during July, August, September, October. 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: Pineda (5%)

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

Component: Holopaw (5%)

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

Map Unit: 37---Tuscawilla fine sand, 0 to 2 percent slopes

Component: Tuscawilla (90%)

The Tuscawilla component makes up 90 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 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 7 percent. 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: Wabasso (10%)

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

Map Unit: 43---Winder, Riviera, limestone substratum, and Chobee soils, frequently ponded, 0 to 1 percent slopes

Component: Winder (33%)

The Winder component makes up 33 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes 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 very poorly drained. Water movement in the most restrictive layer is moderately low. 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Riviera, limestone substratum (30%)

The Riviera, limestone substratum component makes up 30 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 31 to 80 inches. The natural drainage class is very 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 low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Chobee (27%)

The Chobee component makes up 27 percent of the map unit. Slopes are 0 to 1 percent. This component is on marshes on marine terraces on coastal plains. The parent material consists of loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 6 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: Boca (5%)

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

Component: Gator (5%)

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

Hendry County, Florida

Map Unit: 1—Cypress Lake sand, 0 to 2 percent slopes

Component: Cypress Lake (85%)

The Cypress Lake component makes up 85 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 over limestone. Depth to a root restrictive layer, bedrock, lithic, is 13 to 58 inches. The natural drainage class is poorly 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 12 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: Pineda (4%)

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

Component: Riviera (4%)

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

Component: Brynwood (4%)

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

Component: Wabasso (3%)

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

Map Unit: 2—Pineda sand, limestone substratum

Component: Pineda, limestone substratum (80%)

The Pineda, limestone substratum component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. 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 3 inches during June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. 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: Pineda (5%)

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

Component: Malabar (5%)

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

Component: Riviera (5%)

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

Component: Boca (5%)

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

Map Unit: 4—Oldsmar sand, 0 to 2 percent slopes

Component: Oldsmar (85%)

The Oldsmar component makes up 85 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 low. 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Immokalee (6%)

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

Component: Basinger (3%)

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

Component: Basinger (3%)

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

Component: Holopaw (3%)

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

Component: Cypress Lake (2%)

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

Component: Tequesta (1%)

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

Map Unit: 6—Wabasso sand, 0 to 2 percent slopes

Component: Wabasso (85%)

The Wabasso component makes up 85 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, strongly contrasting textural stratification, is 9 to 50 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. 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 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: Brynwood (6%)

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

Component: Cypress Lake (5%)

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

Component: Pineda (4%)

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

Map Unit: 7—Immokalee sand, 0 to 2 percent slopes

Component: Immokalee (85%)

The Immokalee component makes up 85 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 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 very 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 June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Valkaria (5%)

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

Component: Oldsmar (4%)

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

Component: Pomello (3%)

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

Component: Satellite (2%)

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

Component: Felda (1%)

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

Map Unit: 8—Malabar sand, 0 to 2 percent slopes

Component: Malabar (85%)

The Malabar 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 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 low. 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 July, August, September, October. Organic matter content in the surface horizon is about 2 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: Holopaw (5%)

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

Component: Basinger (4%)

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

Component: Oldsmar (3%)

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

Component: Cypress Lake (3%)

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

Map Unit: 9—Riviera fine sand, 0 to 2 percent slopes

Component: Riviera (80%)

The Riviera component makes up 80 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 low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 1 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: Wabasso (8%)

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

Component: Pinellas (4%)

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

Component: Brynwood (4%)

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

Component: Floridana (2%)

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

Component: Oldsmar (2%)

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

Map Unit: 10—Pineda-Pineda, wet, fine sand, 0 to 2 percent slopes

Component: Pineda (45%)

The Pineda component makes up 45 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 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 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: Pineda, wet (40%)

The Pineda, wet component makes up 40 percent of the map unit. Slopes are 0 to 1 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 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. 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: Felda (6%)

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

Component: Wabasso (3%)

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

Component: Valkaria (2%)

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

Component: Brynwood (2%)

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

Component: Cypress Lake (2%)

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

Map Unit: 12—Winder fine sand, 0 to 2 percent slopes

Component: Winder (85%)

The Winder 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 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 low. Available water to a depth of 60 inches (or restricted depth) is high. 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 July, August, September, October. Organic matter content in the surface horizon is about 2 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: Wabasso (4%)

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

Component: Malabar (4%)

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

Component: Basinger (4%)

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

Component: Holopaw (3%)

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

Map Unit: 13—Gentry fine sand, depressional

Component: Gentry (90%)

The Gentry component makes up 90 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 loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 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: Chobee, depressional (3%)

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

Component: Delray (3%)

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

Component: Winder, depressional (2%)

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

Component: Gator (2%)

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

Map Unit: 14---Wabasso sand, limestone substratum, 0 to 2 percent slopes

Component: Wabasso, limestone substratum (85%)

The Wabasso, limestone substratum component makes up 85 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 over limestone. Depth to a root restrictive layer, bedrock, lithic, is 13 to 54 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. 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 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: Cypress Lake (6%)

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

Component: Brynwood (3%)

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

Component: Gator (3%)

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

Component: Gentry (3%)

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

Map Unit: 17—Basinger sand, 0 to 2 percent slopes

Component: Basinger (85%)

The Basinger 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 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 6 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Holopaw (6%)

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

Component: Malabar (5%)

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

Component: Pompano (3%)

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

Component: Anclothe (1%)

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

Map Unit: 19—Gator muck, frequently ponded, 0 to 1 percent slopes

Component: Gator (83%)

The Gator component makes up 83 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy and loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 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: Terra Ceia (5%)

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

Component: Chobee (4%)

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

Component: Tequesta (4%)

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

Component: Felda (3%)

Generated brief soil descriptions are created for major soil components. The Felda 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: 21—Holopaw sand, 0 to 2 percent slopes

Component: Holopaw (84%)

The Holopaw component makes up 84 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 July, August, September, October. Organic matter content in the surface horizon is about 2 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: Basinger (6%)

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

Component: Riviera (4%)

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

Component: Oldsmar (3%)

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

Component: Cypress Lake (2%)

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

Component: Gentry (1%)

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

Map Unit: 22—Valkaria sand

Component: Valkaria (82%)

The Valkaria component makes up 82 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways 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 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 3 inches during June, July, August, September. 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: Pompano (3%)

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

Component: Malabar (3%)

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

Component: Basinger (3%)

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

Component: Immokalee (3%)

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

Component: Pineda (3%)

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

Component: Myakka (3%)

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

Map Unit: 23—Brynwood sand, wet, 0 to 2 percent slopes

Component: Brynwood (85%)

The Brynwood component makes up 85 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 marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 7 to 20 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 very 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 July, August, September, October. 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: Jupiter (5%)

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

Component: Cypress Lake (5%)

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

Component: Wabasso, limestone substratum (3%)

Generated brief soil descriptions are created for major soil components. The Wabasso, limestone substratum soil is a minor component.

Component: Riviera, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Riviera, limestone substratum soil is a minor component.

Map Unit: 27—Riviera sand, limestone substratum

Component: Riviera, limestone substratum (83%)

The Riviera, limestone substratum component makes up 83 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer, bedrock, lithic, is 50 to 80 inches. The natural drainage class is 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 6 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Gator (3%)

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

Component: Gentry (3%)

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

Component: Boca (3%)

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

Component: Wabasso, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Wabasso, limestone substratum soil is a minor component.

Component: Winder (2%)

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

Component: Holopaw, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Holopaw, limestone substratum soil is a minor component.

Component: Pineda, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Pineda, limestone substratum soil is a minor component.

Map Unit: 28—Cypress Lake sand, frequently ponded, 0 to 1 percent slopes

Component: Cypress Lake (77%)

The Cypress Lake component makes up 77 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 and loamy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 13 to 58 inches. The natural drainage class is very poorly 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 1 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: Gator (3%)

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

Component: Holopaw (3%)

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

Component: Okeelanta (3%)

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

Component: Pineda (3%)

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

Component: Basinger (3%)

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

Component: Malabar (3%)

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

Component: Brynwood (3%)

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

Component: Riviera (2%)

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

Map Unit: 29—Oldsmar sand, limestone substratum

Component: Oldsmar, limestone substratum (87%)

The Oldsmar, limestone substratum component makes up 87 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, bedrock, lithic, is 60 to 73 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 June, July, August, September, October. Organic matter content in the surface horizon is about 2 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: Hallandale (3%)

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

Component: Riviera, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Riviera, limestone substratum soil is a minor component.

Component: Holopaw, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Holopaw, limestone substratum soil is a minor component.

Component: Malabar (2%)

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

Component: Pineda, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Pineda, limestone substratum soil is a minor component.

Component: Immokalee (2%)

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

Map Unit: 32—Riviera sand, frequently ponded, 0 to 1 percent slopes

Component: Riviera (85%)

The Riviera component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Chobee (5%)

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

Component: Wabasso (4%)

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

Component: Malabar (3%)

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

Component: Brynwood (3%)

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

Map Unit: 33—Holopaw sand, frequently ponded, 0 to 1 percent slopes

Component: Holopaw (88%)

The Holopaw component makes up 88 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions 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 very 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Basinger (7%)

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

Component: Riviera (5%)

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

Map Unit: 34—Chobee fine sandy loam, limestone substratum, depressional

Component: Chobee, depressional, limestone subst. (80%)

The Chobee, depressional, limestone subst. 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 loamy alluvium. Depth to a root restrictive layer, bedrock, lithic, is 40 to 79 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. Organic matter content in the surface horizon is about 9 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: Dania (4%)

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

Component: Gentry (4%)

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

Component: Winder, depressional (4%)

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

Component: Gator (4%)

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

Component: Jupiter (4%)

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

Map Unit: 37—Tuscaawilla fine sand, 0 to 2 percent slopes

Component: Tuscaawilla (84%)

The Tuscaawilla component makes up 84 percent of the map unit. Slopes are 0 to 2 percent. This component is on low broad 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 very 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 low. This soil is not flooded. It is occasionally ponded. A seasonal zone of water saturation is at 3 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 15 percent. 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: Chobee, flooded (4%)

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

Component: Tequesta (4%)

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

Component: Wabasso (4%)

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

Component: Jupiter (2%)

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

Component: Cypress Lake (2%)

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

Map Unit: 42—Riviera sand, limestone substratum, depressional

Component: Riviera, depressional, limestone subst. (80%)

The Riviera, depressional, limestone subst. 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 and loamy marine deposits. Depth to a root restrictive layer, bedrock, lithic, is 40 to 80 inches. The natural drainage class is very 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 1 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: Boca, depressional (3%)

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

Component: Hallandale, depressional (3%)

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

Component: Gentry (3%)

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

Component: Gator (3%)

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

Component: Winder, depressional (2%)

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

Component: Malabar, depressional (2%)

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

Component: Holopaw, depressional (2%)

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

Component: Pineda, depressional (2%)

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

Map Unit: 44—Jupiter fine sand, 0 to 2 percent slopes

Component: Jupiter (80%)

The Jupiter component makes up 80 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 marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 7 to 18 inches. The natural drainage class is poorly 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 6 inches during July, August, September, October. 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: Cypress Lake (5%)

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

Component: Brynwood (5%)

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

Component: Chobee, limestone substratum (5%)

Generated brief soil descriptions are created for major soil components. The Chobee, limestone substratum soil is a minor component.

Component: Oldsmar, limestone substratum (2%)

Generated brief soil descriptions are created for major soil components. The Oldsmar, limestone substratum soil is a minor component.

Component: Tequesta (2%)

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

Component: Tequesta (2%)

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

Component: Dania (1%)

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

Map Unit: 45—Pahokee muck, drained, 0 to 1 percent slopes

Component: Pahokee, drained (90%)

The Pahokee, drained component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of herbaceous organic material over limestone. Depth to a root restrictive layer, bedrock, lithic, is 36 to 51 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 75 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: Cypress Lake (6%)

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

Component: Dania, drained (2%)

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

Component: Lauderhill, drained (2%)

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

Map Unit: 50—Delray sand, depressional

Component: Delray (82%)

The Delray component makes up 82 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 and loamy 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 4 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: Gentry (6%)

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

Component: Holopaw, depressional (6%)

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

Component: Okeelanta, drained (6%)

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

Map Unit: 51—Malabar fine sand, high, 0 to 2 percent slopes

Component: Malabar, high (85%)

The Malabar, high component makes up 85 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 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 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: Oldsmar (5%)

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

Component: Felda (4%)

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

Component: Pineda (4%)

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

Component: Basinger (2%)

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

Component: Basinger (2%)

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

Map Unit: 57—Chobee fine sandy loam, frequently ponded, 0 to 1 percent slopes

Component: Chobee (88%)

The Chobee component makes up 88 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of loamy 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 moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 6 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: Tequesta (3%)

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

Component: Winder (3%)

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

Component: Gator (3%)

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

Component: Placid (3%)

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

Map Unit: 58—Oldsmar sand, depressional

Component: Oldsmar, depressional (87%)

The Oldsmar, depressional component makes up 87 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 and loamy 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 moderately low. 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 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: Okeelanta (2%)

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

Component: Holopaw, depressional (2%)

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

Component: Gentry (2%)

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

Component: Malabar, depressional (2%)

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

Component: Gator (2%)

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

Component: Basinger (2%)

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

Component: Riviera, depressional (1%)

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

Map Unit: 59—Winder fine sand, frequently ponded, 0 to 1 percent slopes

Component: Winder (85%)

The Winder component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions 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 very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during July, August, September, October. Organic matter content in the surface horizon is about 2 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: Cypress Lake (4%)

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

Component: Chobee (4%)

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

Component: Riviera (4%)

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

Component: Okeelanta (3%)

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

Map Unit: 62—Pineda sand, depressional

Component: Pineda, depressional (87%)

The Pineda, depressional component makes up 87 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 and loamy 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 moderately low. 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 frequently ponded. A seasonal zone of water saturation is at 0 inches during June, July, August, September, October. 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: Holopaw, depressional (2%)

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

Component: Boca, depressional (2%)

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

Component: Malabar, depressional (2%)

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

Component: Gator (2%)

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

Component: Chobee, depressional (2%)

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

Component: Valkaria (1%)

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

Component: Riviera, depressional (1%)

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

Component: Okeelanta, drained (1%)

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

Map Unit: 64—Brynwood sand, frequently ponded, 0 to 1 percent slopes

Component: Brynwood (87%)

The Brynwood component makes up 87 percent of the map unit. Slopes are 0 to 1 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits over limestone. Depth to a root restrictive layer, bedrock, lithic, is 7 to 20 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately 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 0 inches during July, August, September, October. 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: Pahokee, drained (3%)

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

Component: Cypress Lake (3%)

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

Component: Pineda (3%)

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

Component: Winder (2%)

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

Component: Riviera (2%)

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

Map Unit: 70—Denaud muck

Component: Denaud (85%)

The Denaud component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits organic material. 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 moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 55 percent. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 5 percent. 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: Basinger (2%)

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

Component: Pineda, depressional (2%)

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

Component: Holopaw, depressional (2%)

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

Component: Gentry (2%)

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

Component: Chobee, depressional (2%)

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

Component: Delray (2%)

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

Component: Gator (2%)

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

Component: Riviera, depressional (1%)

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

Data Source Information

Soil Survey Area: Collier County Area, Florida
Survey Area Data: Version 16, Sep 1, 2022

Soil Survey Area: Hendry County, Florida
Survey Area Data: Version 22, Sep 1, 2022

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

Shawn Hamilton
Secretary

Via Email

June 16, 2023

Ms. Emily Marsh
Land Management Planner, Florida Forest Service
Florida Department of Agriculture and Consumer Services
3125 Conner Boulevard, Suite I-258, Mail Stop C-25
Tallahassee, FL 32399-1650

RE: Okaloacoochee Slough State Forest

Dear Ms. Marsh:

Thank you for your inquiry regarding the surface water quality classifications and Outstanding Florida Waters (OFW) for Okaloacoochee Slough State Forest in Hendry and Collier counties. All of the surface waters within, adjacent to, or within 4 miles of the state forest are classified as Class III waters according to Rule 62-302.400, Florida Administrative Code (F.A.C.). The closest Class I waters are more than 4 miles away for the Caloosahatchee River.

According to our Outstanding Florida Waters layer and Rule, Okaloacoochee Slough State Forest is not designated as an OFW. Additionally, there are no other OFWs in, near, or adjacent to Okaloacoochee Slough State Forest. The closest OFWs are more than 10 miles away.

According to the Florida Natural Areas Inventory Managed Areas data layer, there are several parcels that are adjacent to the state forest that are managed by the FWC. However, none of these parcels are designated as OFWs. Please see the screenshot below for the boundaries of the Okaloacoochee Slough State Forest reflecting that there are no OFWs present.

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

Sincerely,

Talia Elisa Smith-Sickler
Standards Development Section
Water Quality Standards Program
Florida Department of Environmental Protection

Exhibit K

Water Resources and BMAP Maps



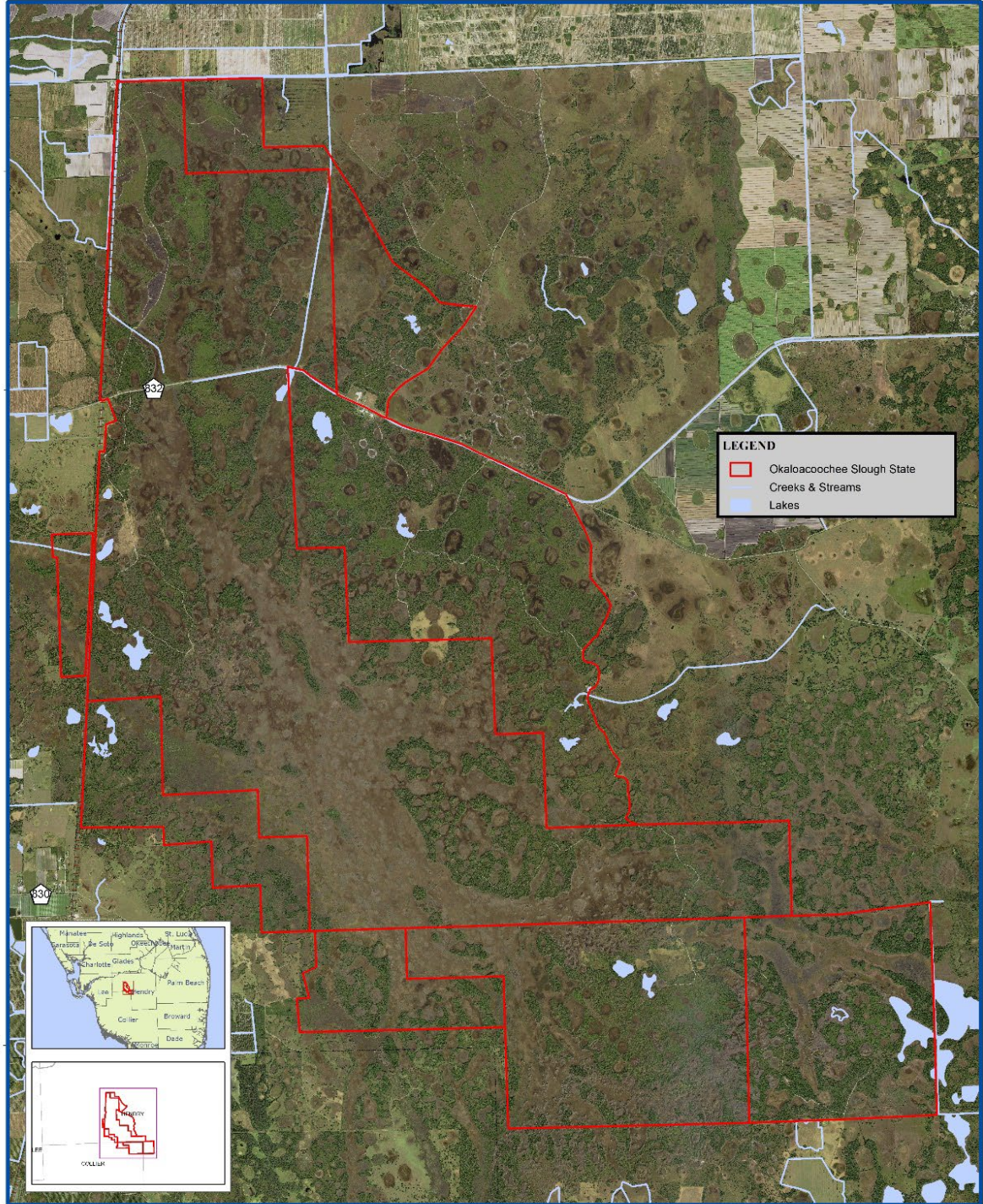
Florida Forest Service

Okaloacoochee Slough State Forest

Water Resources Map

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

NOTES:
This map was created by the Florida Forest Service
using data provided by the Florida Department of
Natural Resources. The Florida Department of
Natural Resources is not responsible for any
errors or omissions on this map. The Florida
Department of Natural Resources is not
responsible for any damages or injuries
resulting from the use of this map.
The Florida Department of Natural Resources
is not responsible for any damages or injuries
resulting from the use of this map.



0.25 0.5 0.75 1 1.25 1.5
Miles



81° 0' W

Map Month/Year: September 2023

1,000 800 0 1,000 2,000 3,000 4,000
Yards



Florida Forest Service

Okaloacoochee Slough State Forest

BMAP Map

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

91° 07' 40"

NOTES:
This map was prepared by the Florida Forest Service
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The Florida Forest Service is a part of the Florida Department of Natural Resources.
The Florida Forest Service is located at 1000 N. US Highway 90, Tallahassee, FL 32304.

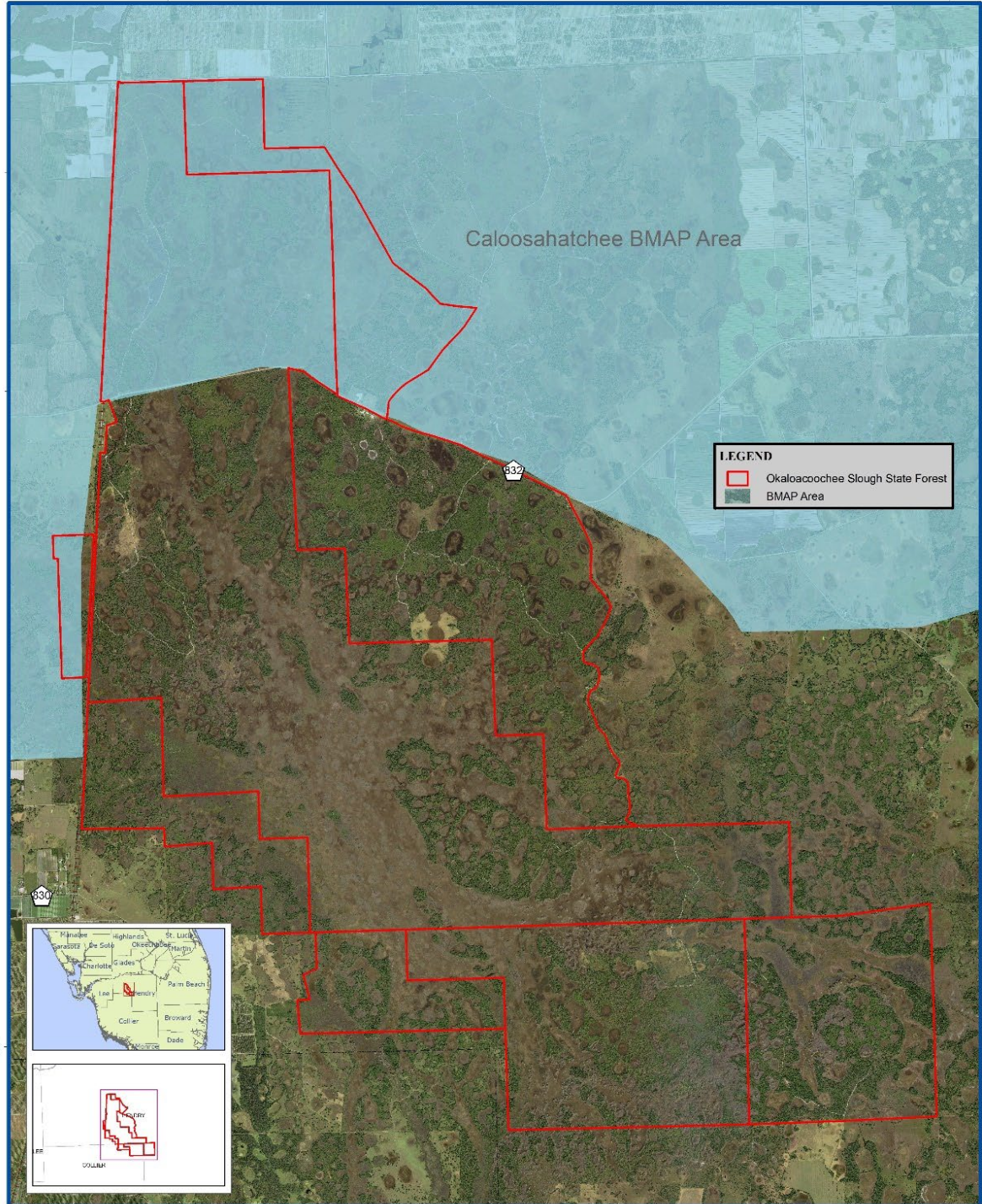


Exhibit L

Florida Natural Areas Inventory

Managed Area Data Report



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

July 11, 2023

Emily Marsh
Florida Forest Service
FL Dept of Agriculture & Consumer Services
3125 Conner Boulevard
Tallahassee, FL 32399-1650

Dear Ms. Marsh,

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: Okaloacoochee Slough State Forest
Date Received: 6/14/2023
Location: Hendry & Collier Counties

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 many element occurrences mapped in the vicinity of the study area (see enclosed map and element occurrence table). Please be advised that a lack of element occurrences in the FNAI database is not a sufficient indication of the absence of rare or endangered species on a site.

Federally Listed Species

Our data indicate federally listed species are present on or very near this site, specifically Florida Panther (*Puma concolor coryi*) (see enclosed map and tables for details). This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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

Tracking Florida's Biodiversity

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.

Likely and Potential Rare Species

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

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

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

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

CLIP

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

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

Managed Areas

Portions of the site appear to be located within the Okaloacoochee Slough 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.

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

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

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

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

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

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl



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

Florida Natural Areas Inventory

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

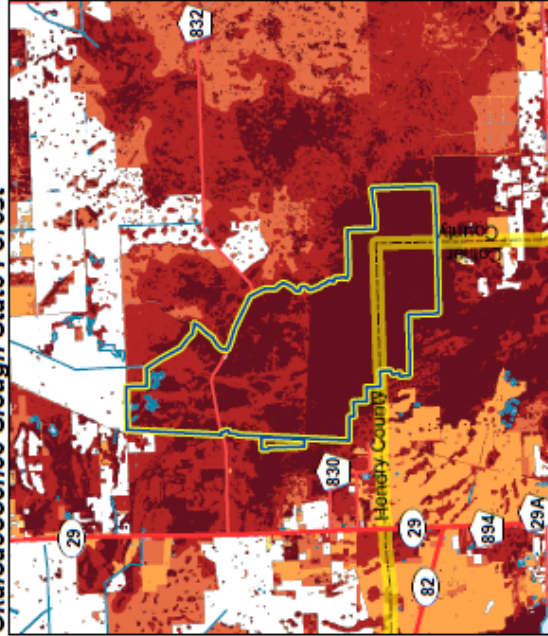
- Priority 1 - highest
- Priority 2
- Priority 3
- Priority 4
- Priority 5



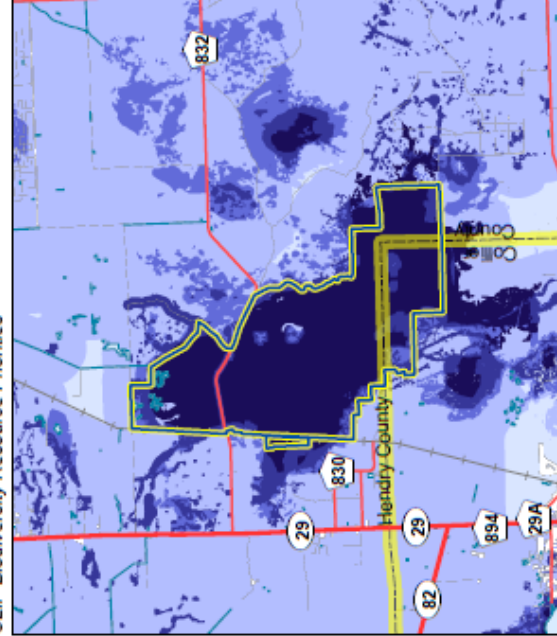
Map should not be interpreted without accompanying documents.

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 support from the U.S. Environmental Protection Agency and U.S. Fish & Wildlife Service.

Okaloacoochee Slough State Forest



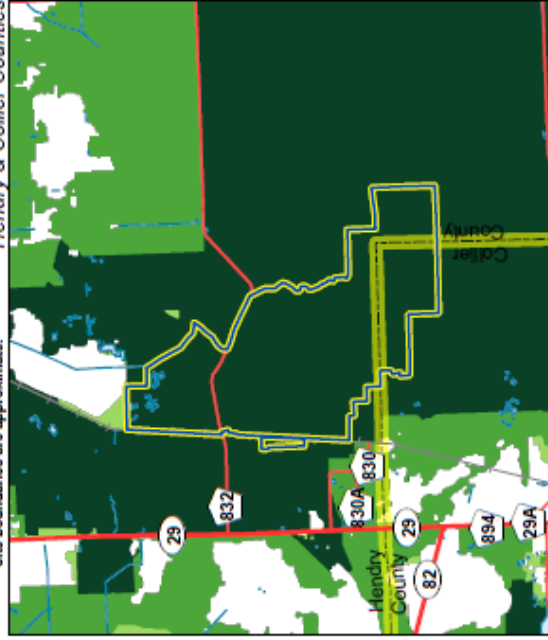
CLIP Biodiversity Resource Priorities



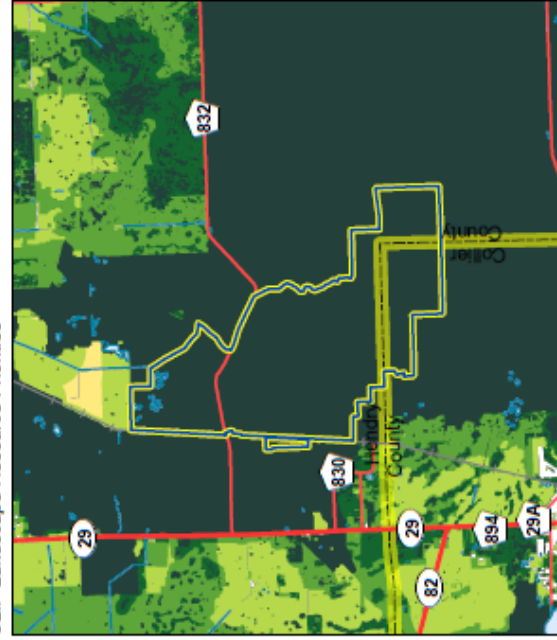
CLIP Surface Water Resource Priorities

Hendry & Collier Counties

Site boundaries are approximate.



CLIP Landscape Resource Priorities



CLIP Aggregated Resource Priorities

Map produced by KAB
7/11/2023



FNAI ELEMENT OCCURRENCE REPORT on or near
Okaloacoochee Slough State Forest



Map Label	Scientific Name	Common Name	Global State Federal State	Rank	Status	Listing	Observation	Description	EO Comments
ARANGUAR49	<i>Aramus guaruna</i>	Limpkin	G5	S3	N	N	2006-03-22	2006-03-22: swale, depression marsh, basin marsh, and ruderal communities (F08FNA06FLUS).	2006-03-22: 7 birds observed calling and foraging (F08FNA06FLUS).
CARAPLAN174	<i>Caracara planicus</i>	Crested Caracara	G5	S2	T	FT	1989	No general description given	1989: One nesting territory recorded by J. Layne during GFC population study (U97GFC02).
CHEPALIN62	<i>Cheiroglossa palmaria</i>	hand fern	G4	S3	N	E	2015-01-14	High quality hydric hammock in remote corner of WMA.	8 leaf clumps of <i>Ophioglossum</i> observed in two nearby locations in hydric hammock (U97GFC02).
CHEPALIN63	<i>Cheiroglossa palmaria</i>	hand fern	G4	S3	N	E	2015-05-08	Near edge of marsh in fairly open, sunny area in wet flatwoods. Growing with <i>Vitis rotundifolia</i> , <i>Toxicodendron radicans</i> . Burn scars on trees, including host tree. In remote northwest corner of WMA.	Plant vigorous, with about 35 fronds. Most are reproductive, on Sabal palmetto; adjacent Sabal has one small vegetative frond (PND5GUL01FLUS).
COELTUBE44	<i>Coeloxaechis tuberculosa</i>	Piedmont jointgrass	G3	S3	N	T	2003-01-28	Wet flatwoods	20 plants divided between two locations; in seed.
COLEABSC106	<i>Coleaetania abscissa</i>	cutthroatgrass	G3	S3	N	E	2003-05-13	2003-05-13: improved bahiagrass pasture. 33 acres surrounding population has been herbicided and planted with native seed collected elsewhere on the WMA, on Webb WMA, and Three lakes WMA. A depressional wetland is nearby to the north. Site has been burned	2003-05-13: 100 plants (PNDMCC06FLUS, F08MCC01FLUS). 2003-02-09: 11-50 plants observed.
CROTADAM394	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N	2017-04-30	State forest.	Based on 2 records, but likely a substantial, viable population.
DRYOVILL20	<i>Dryobates villosus</i>	Hairy Woodpecker	G5	S3	N	N	2014-10-13	Adult observed foraging in mesic flatwoods.	One adult observed.
DS939076	<i>Data Sensitive Element</i>	Data Sensitive	G5	S3	N	T	2015-01-14	Data Sensitive	Data Sensitive
DS940177	<i>Data Sensitive Element</i>	Data Sensitive	G5	S3	N	T	2015-03-31	Data Sensitive	Data Sensitive
EGRETHUL197	<i>Egretta thula</i>	Snowy Egret	G5	S3	N	N	1988-05-08	Shrubby marsh (0.5-1 acre) in the NW corner of a cattle pasture; barbed-wire fence surrounding pasture; paved along northern boundary, freshwater marsh and drainage on the north side of the road.	1988/05/08: E. Carter, GFC, SNEG in prenesting and pairing stages. CAEG and TCHE incubating. GLIB egg laying and incubating. "Total" (nests?) = 113.



FNAI ELEMENT OCCURRENCE REPORT on or near Okaloosa/Chocoma Slough State Forest

Map Label	Scientific Name	Common Name	Global State Federal State Observation			Description	EO Comments
			Rank	Rank	Status Listing		
EGRETRIC199	<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	ST	1988-05-08: Shrubby marsh in the corner of a cattle pasture (U97GFC02FLUS).
GOPHPOLY1188	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2005: Along a north-south oriented powerline right-of-way. Based on aerial photography and nearby FNAI mapping data (F05FNA04FLUS). Habitat is likely mesic flatwoods. No habitat information provided by sources (U05POD01FLUS, PNDPOD02FLUS).
GOPHPOLY1189	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST	2005: Along road in mesic flatwoods, based on FNAI natural community mapping data (F05FNA04FLUS). No habitat information provided with tortoise points (U06POD01FLUS, PNDPOD02FLUS).
LINUSMAL10	<i>Linum carteri</i> var. <i>smallii</i>	Small's flax	G2T2	S2	N	E	2005-05-02: in wet prairie, disturbed moderately by an ORV trail (F05FNA04FLUS, PNDTAND01FLUS).
MATEFLOR153	<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E	2005-05-02: 11-50 plants in flower/bud in an area > 10-100 square meters (F05FNA04FLUS, PNDTAND01FLUS). 12 counted in flower/bud (F17FNA26FLUS)



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FNAI ELEMENT OCCURRENCE REPORT on or near

Okaloacoochee Slough State Forest



Map Label	Scientific Name	Global State Federal State			Observation		Description	EO Comments
		Common Name	Rank	Status	Listing	Date		
MESHAM1273	Mesic hammock		G3	S3?	N	N	2015-01-14	Mesic hammock on island surrounded by basin marsh. Island also contains hydric hammock and depression marsh. North-south canal and berm divides hammock and forms west boundary of Dinner Island WMA. In remote northwest corner of WMA.
MYCTAMER48	<i>Mycteria americana</i>	Wood Stork	G4	S2	DL	FT	1974-04-18	11 STORKS OBSERVED FORAGING BETWEEN 15-21 DEC 1973, 25 ON 26-28 JAN 1974, 25 ON 9 FEB 1974, 18 ON 23 FEB 1974, 8 ON 15 MAR 1974 AND 4 ON 18-18 APR 1974.. FEEDING SITE ASSOC. WITH NEARBY ROOKERIES; USE OF SITE IS HIGHLY SEASONAL.
MYCTAMER64	<i>Mycteria americana</i>	Wood Stork	G4	S2	DL	FT	1974-02-09	3 STORKS OBSERVED FORAGING. FEEDING SITE ASSOC. WITH NEARBY ROOKERIES; USE OF SITE HIGHLY SEASONAL.



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Florida
Natural Areas
Inventory

FNAI ELEMENT OCCURRENCE REPORT on or near

Okaloacoochee Slough State Forest



Map Label	Scientific Name	Common Name	Global State Federal State			Date	Description	EO Comments
			Rank	Rank	Status			
MYCTAMER65	<i>Mycteria americana</i>	Wood Stork	G4	S2	DL	FT	1974-05-05	No general description given
PEUCAEST109	<i>Pelecaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N	2015-03-31	Highly disturbed mesic flatwoods that had formerly been semi-improved pasture that is currently being restored.
PLEGFALC31	<i>Plegadis falcinellus</i>	Glossy Ibis	G5	S3	N	N	1989-02-04	Ditch through improved pasture.
PLEGFALC32	<i>Plegadis falcinellus</i>	Glossy Ibis	G5	S3	N	N	1988-05-06	Shrubby marsh (0.5-1 acre) in the NW corner of a cattle pasture; barbed-wire fence surrounding pasture; paved along northern boundary, freshwater marsh and drainage on the north side of the road.
PUMACORY1	<i>Puma concolor coryi</i>	Florida Panther	G5T1	S1	E	FE	2018-02-27	1980: part of Big Cypress Swamp, includes several water courses, numerous ponds and low "uplands". Diverse habitats include wet and dry prairie, cypress forest (logged), mixed pines, mixed hardwoods; seasonally flooded (PNDMAE01FLUS).



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Map Label	Scientific Name	Common Name	Global State Federal State Observation			Description	EO Comments
			Rank	Status	Date		

ZEPHSIMP15	<i>Zephyranthes simpsonii</i>	redmargin zephyrily	G2G3	N	T	Mesic flatwoods	1 flowering plant
ZEPHSIMP17	<i>Zephyranthes simpsonii</i>	redmargin zephyrily	G2G3	N	T	Semi-improved pasture	101-1000 plants



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Florida Natural Areas Inventory

Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
<i>Coelorachis tuberculosa</i>	Piedmont jointgrass	G3	S3	N	T
<i>Coleataenia abscissa</i>	cutthroatgrass		S3	N	E
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake		S3	N	N
<i>Dryobates villosus</i>	Hairy Woodpecker	G5	S3	N	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	NR	ST
<i>Linum carteri</i> var. <i>smallii</i>	Small's flax	G2T2	S2	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
Mesic hammock		G3	S3?	N	N
<i>Ophioglossum palmatum</i>	hand fern	G4	S2	N	E
<i>Peucaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Pteroglossaspis ecrinata</i>	giant orchid	G2G3	S2	N	T
<i>Puma concolor coryi</i>	Florida Panther	G5T1	S1	E	FE
<i>Tillandsia flexuosa</i>	banded wild-pine	G5	S3	N	T
<i>Zephyranthes simpsonii</i>	redmargin zephyrily	G2G3	S2S3	N	T
Likely					
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Aramus guarauna</i>	Limpkin	G5	S3	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT
Mesic flatwoods		G4	S4	N	N
<i>Mustela frenata peninsulæ</i>	Florida Long-tailed Weasel	G5T3?	S3?	N	N
<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT
<i>Rostrhamus sociabilis</i>	Snail Kite	G4G5	S2	E	FE
<i>Sciurus niger avicennia</i>	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Potential					
<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>Centrosema arenicola</i>	sand butterfly pea	G2Q	S2	N	E
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S1	N	N
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E, PT	FE
<i>Egretta thula</i>	Snowy Egret	G5	S3	N	N
<i>Egretta tricolor</i>	Tricolored Heron		S4	N	ST
<i>Eumops floridanus</i>	Florida bonneted bat	G1	S1	E	FE
<i>Lechea cernua</i>	nodding pinweed	G3	S3	N	T
<i>Lithobates capito</i>	Gopher Frog	G2G3	S3	N	N
<i>Nemastylis floridana</i>	celestial lily	G2	S2	N	E
<i>Neofiber alleni</i>	Round-tailed Muskrat		S2	N	N
<i>Nolina atopocarpa</i>	Florida beargrass	G3	S3	N	T
<i>Platanthera integra</i>	yellow fringeless orchid	G3G4	S3	N	E
<i>Plegadis falcinellus</i>	Glossy Ibis	G5	S3	N	N
<i>Salix floridana</i>	Florida willow	G2G3	S2S3	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Tephrosia angustissima</i> var. <i>curtissii</i>	coastal hoary-pea	G1T1	S1	N	E
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N

Definitions: Documented - Rare species and natural communities documented on or near this site.
 Documented-Historic - Rare species and natural communities documented, but not observed/reported within the last twenty years.
 Likely - Rare species and natural communities likely to occur on this site based on suitable habitat and/or known occurrences in the vicinity.
 Potential - This site lies within the known or predicted range of the species listed.



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Florida Natural Areas Inventory

Managed Area Element Summary Okaloacoochee Slough State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
<i>Linum carteri</i> var. <i>smallii</i>	Small's flax	G2T2	S2	N	E
REPTILES					
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	UR	N
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	N	ST
BIRDS					
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Aramus guarauna</i>	Limpkin	G5	S3	N	N
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2	N	N
<i>Mycteria americana</i>	Wood Stork	G4	S2	DL	FT
MAMMALS					
<i>Puma concolor coryi</i>	Florida Panther	G5T1	S1	E	FE
<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.

Elements and Element Occurrences

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

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

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

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

FNAI STATE ELEMENT RANK

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

FEDERAL LEGAL STATUS

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

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

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

STATE LEGAL STATUS

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

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

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

Plants: Definitions derived from Sections 581.011, 581.185 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of Florida Act, 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Florida Division of Plant Industry, 352-372-3505 or see: <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=58-40>.

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

Element Occurrence Ranking

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

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

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

FNAI also uses the following EO ranks:

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

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

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

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

Exhibit M

Florida Fish and Wildlife Conservation Commission

Listed Species Occurrence Records



**Florida Fish
and Wildlife
Conservation
Commission**

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MyFWC.com

August 23, 2023

Emily Marsh
Florida Forest Service
3125 Conner Boulevard
Tallahassee, Florida 32399-1650
emily.marsh@fdacs.gov

Dear Ms. Marsh:

This letter is in response to your request for listed species occurrence records and critical habitats for the Okaloacoochee Slough State Forest, located in Hendry County. FWC staff conducted a geographic information system (GIS) analysis of the project area utilizing a variety of internal datasets. The analysis found that the project area contains:

Documented occurrences of the following listed and managed species:

- Eastern indigo snake (*Drymarchon couperi*, Federally Threatened [FT])
- Florida panther (*Puma concolor coryi*, Federally Endangered)
- Wood stork (*Mycteria americana*, FT)
- Gopher tortoise (*Gopherus polyphemus*, State Threatened [ST])
- Little blue heron (*Egretta caerulea*, ST)

Potential habitat for the following listed and managed species:

- Eastern indigo snake
- Wood Stork
- Gopher tortoise
- Audubon's crested caracara (*Polyborus plancus audubonii*, FT)
- Big Cypress fox squirrel (*Sciurus niger avicennia*, ST)
- Florida black bear (*Ursus americanus floridanus*)

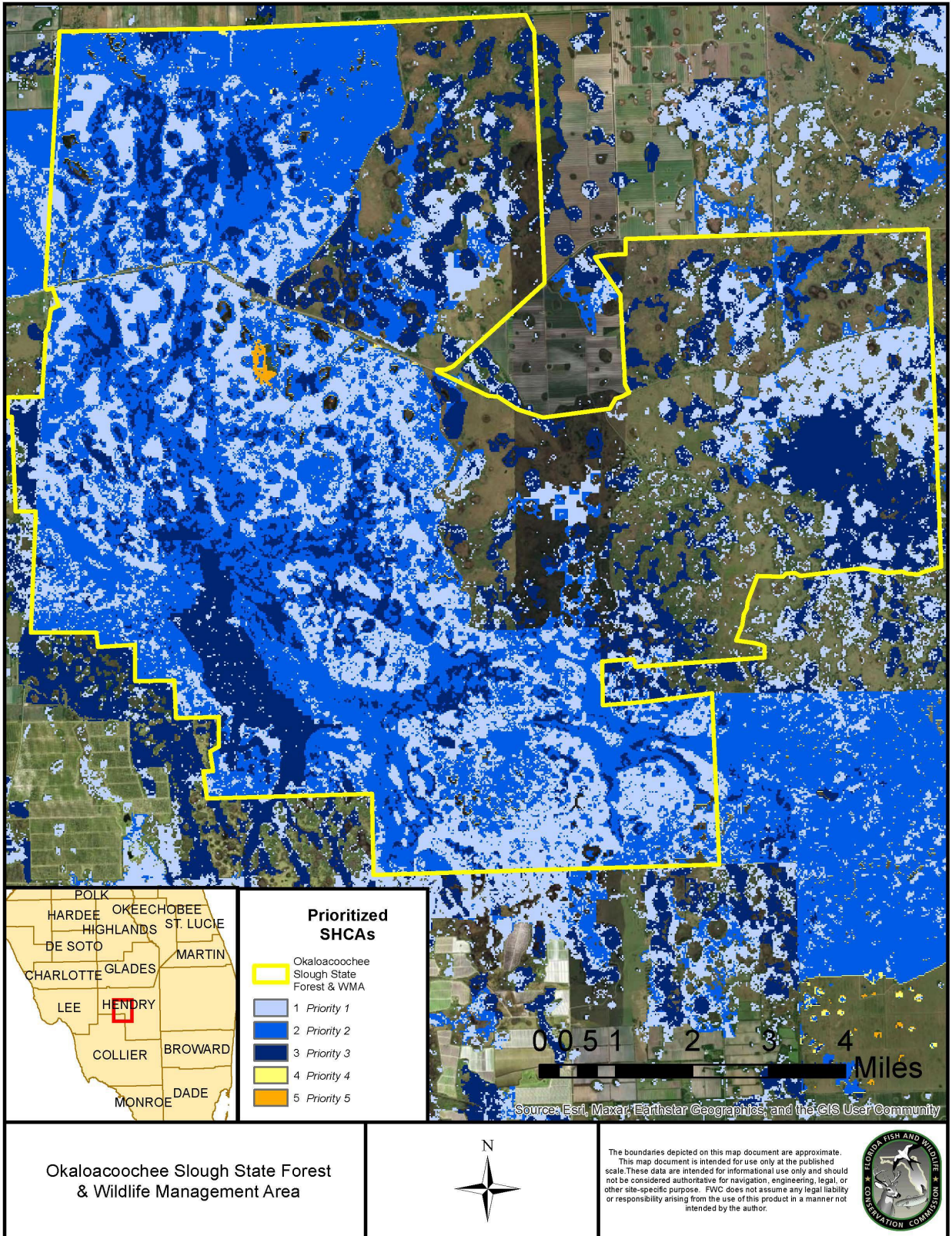
The wildlife occurrence data represents only species recorded by FWC staff and other affiliated researchers and the available databases do not necessarily contain records of all listed species that may occur in a given area. Therefore, the absence of a species in this list does not mean that species does not occur in the area. On-site surveys using appropriate methodologies are always the most reliable method to determine the potential presence of listed species and their habitat.

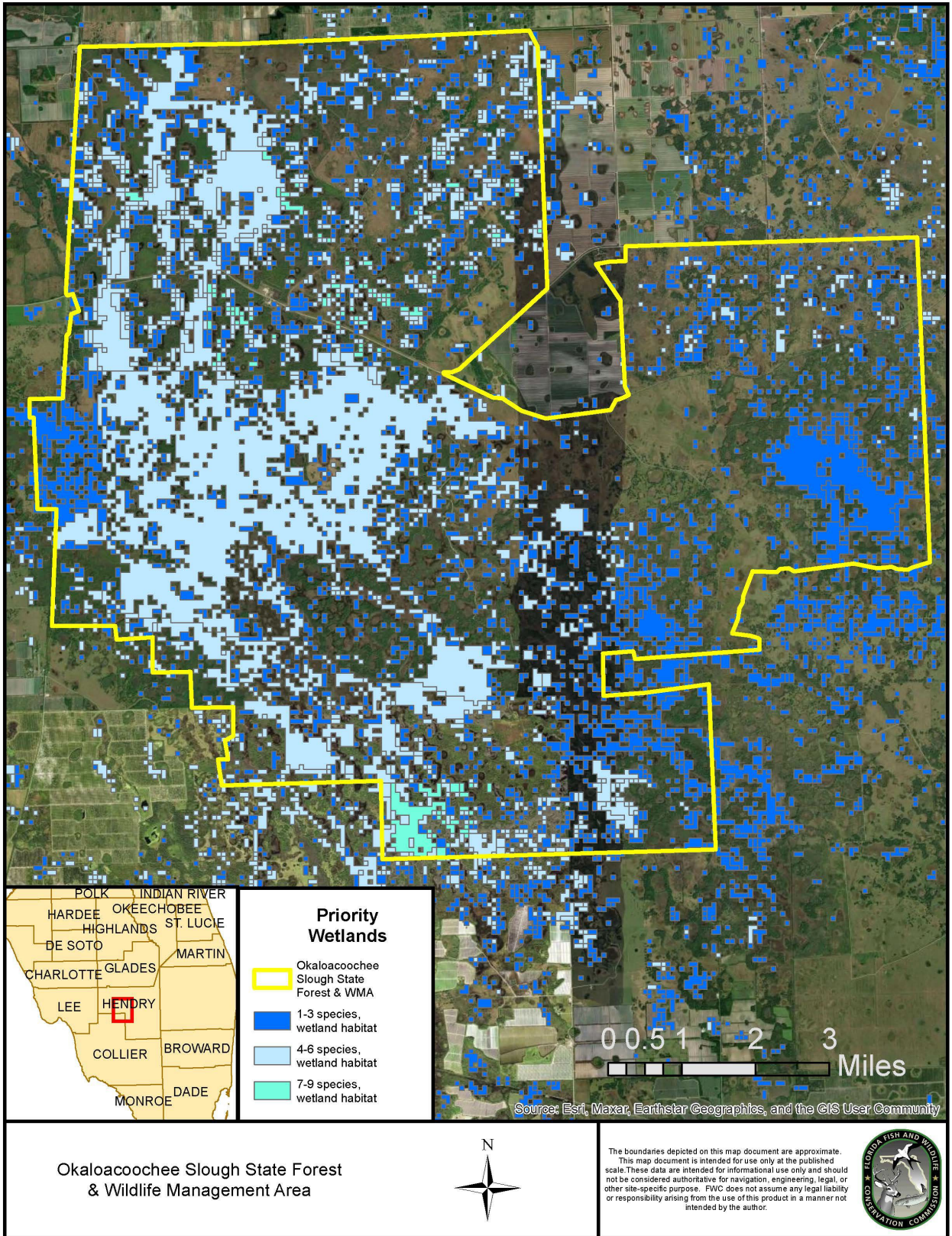
The enclosed maps are based on aggregated species models and include listed species Strategic Habitat Conservation Areas (SHCAs), species richness, and priority wetlands for listed species. These data highlight areas with enhanced value for multiple listed and managed species of wildlife.

For specific technical questions regarding the content of this letter, please contact Alex Flores at 850-488-8783 or by email at Alex.Flores@MyFWC.com. All other inquiries may be sent to ConservationPlanningServices@MyFWC.com.

Sincerely,

Laura DiGruttolo, Land Use Planning Supervisor
Office of Conservation Planning Services
Florida Fish and Wildlife Conservation Commission





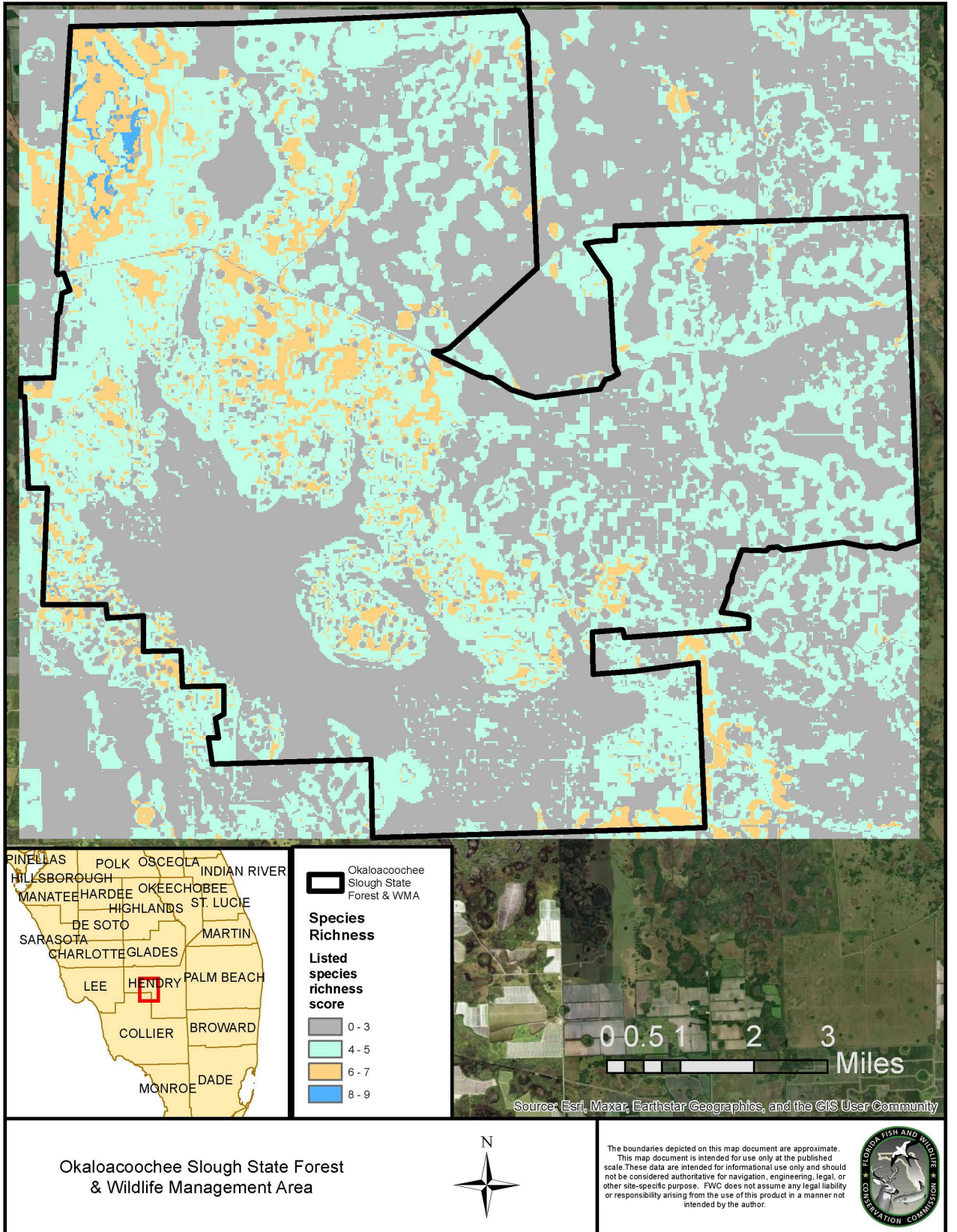


Exhibit N

Ten-Year Fire History

Okaloacoochee Slough State Forest Burn Acres by Fiscal Year

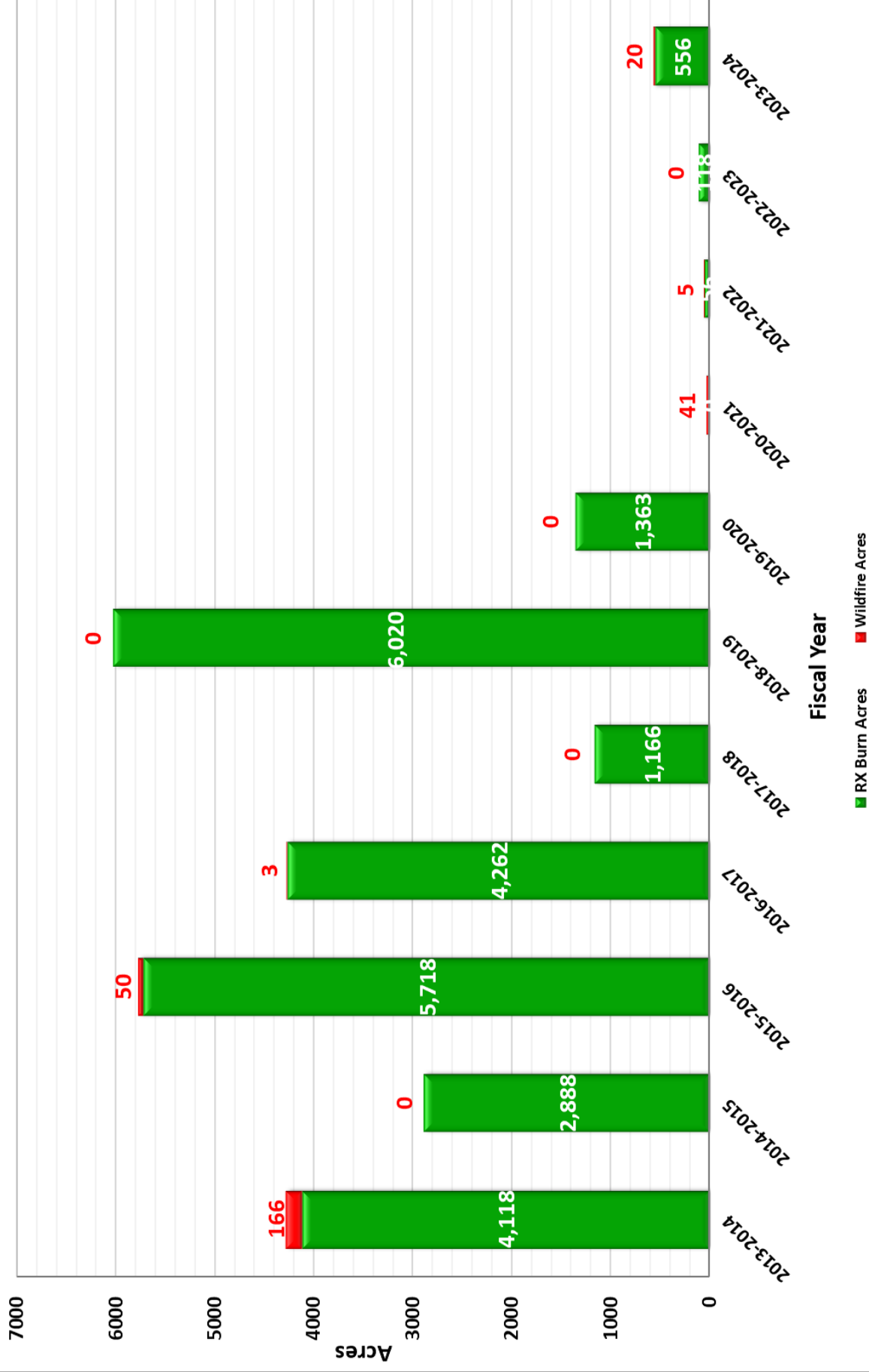


Exhibit O

Invasive Species Map



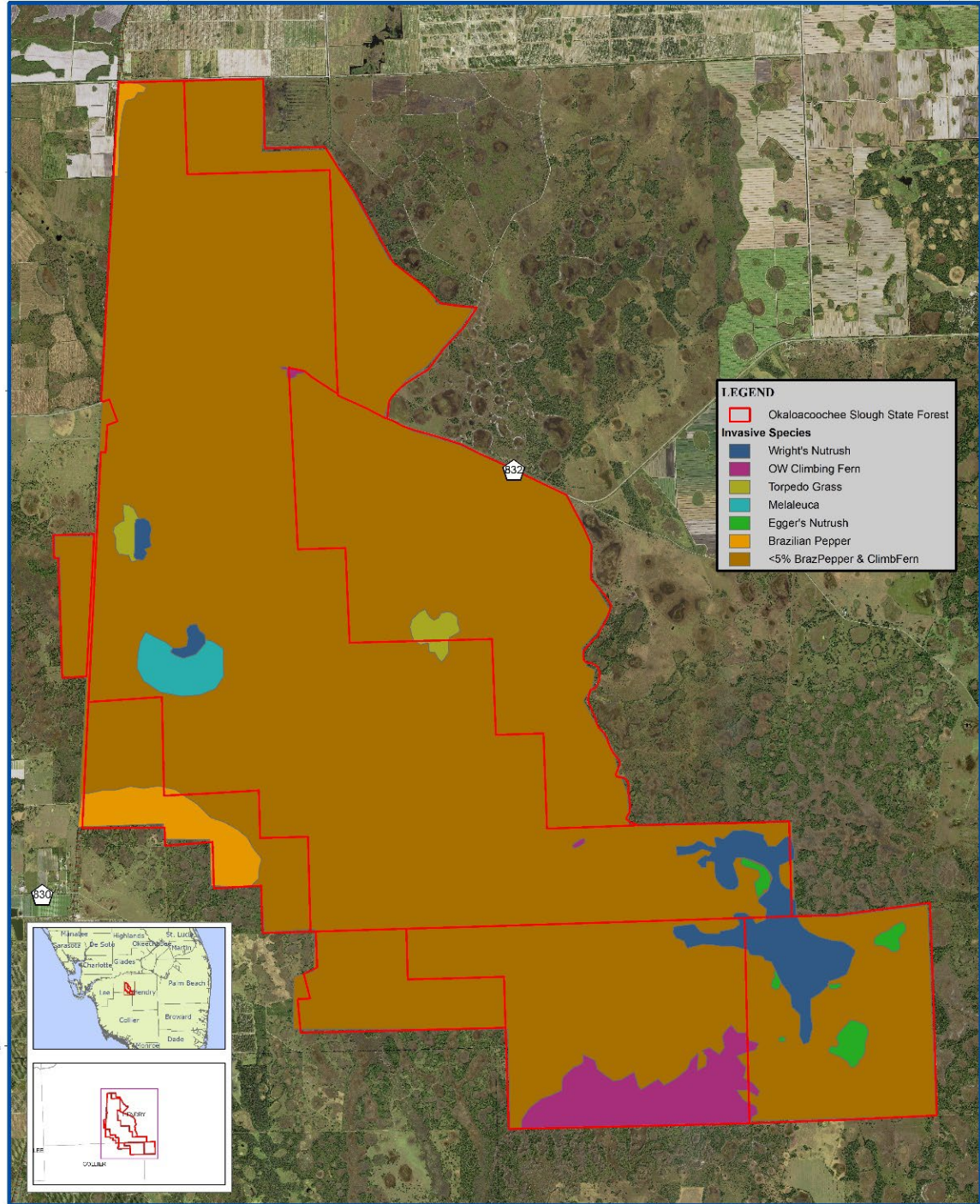
Florida Forest Service

Okaloacoochee Slough 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 for informational purposes only. It is not intended to be used for legal or regulatory purposes. The Florida Forest Service does not warrant the accuracy or completeness of the information contained herein. The Florida Forest Service assumes no liability for any errors or omissions in this map. The Florida Forest Service reserves the right to modify this map at any time without notice.

Targeted Area: Boundaries of the Florida Forest Service, Alachua County, Florida, are shown. The Florida Forest Service is located at 2500 S.W. 1st Street, Gainesville, Florida 32601.

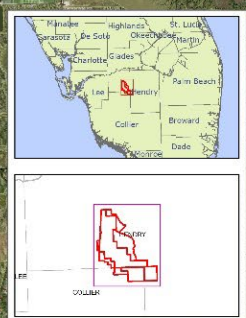


LEGEND

Okaloacoochee Slough State Forest

Invasive Species

- Wright's Nutrush
- OW Climbing Fern
- Torpedo Grass
- Melaleuca
- Egger's Nutrush
- Brazilian Pepper
- <5% BrazPepper & ClimbFern



Map Month/Year: October 2023



Exhibit P

Current FNAI Natural Communities Map



Florida Forest Service

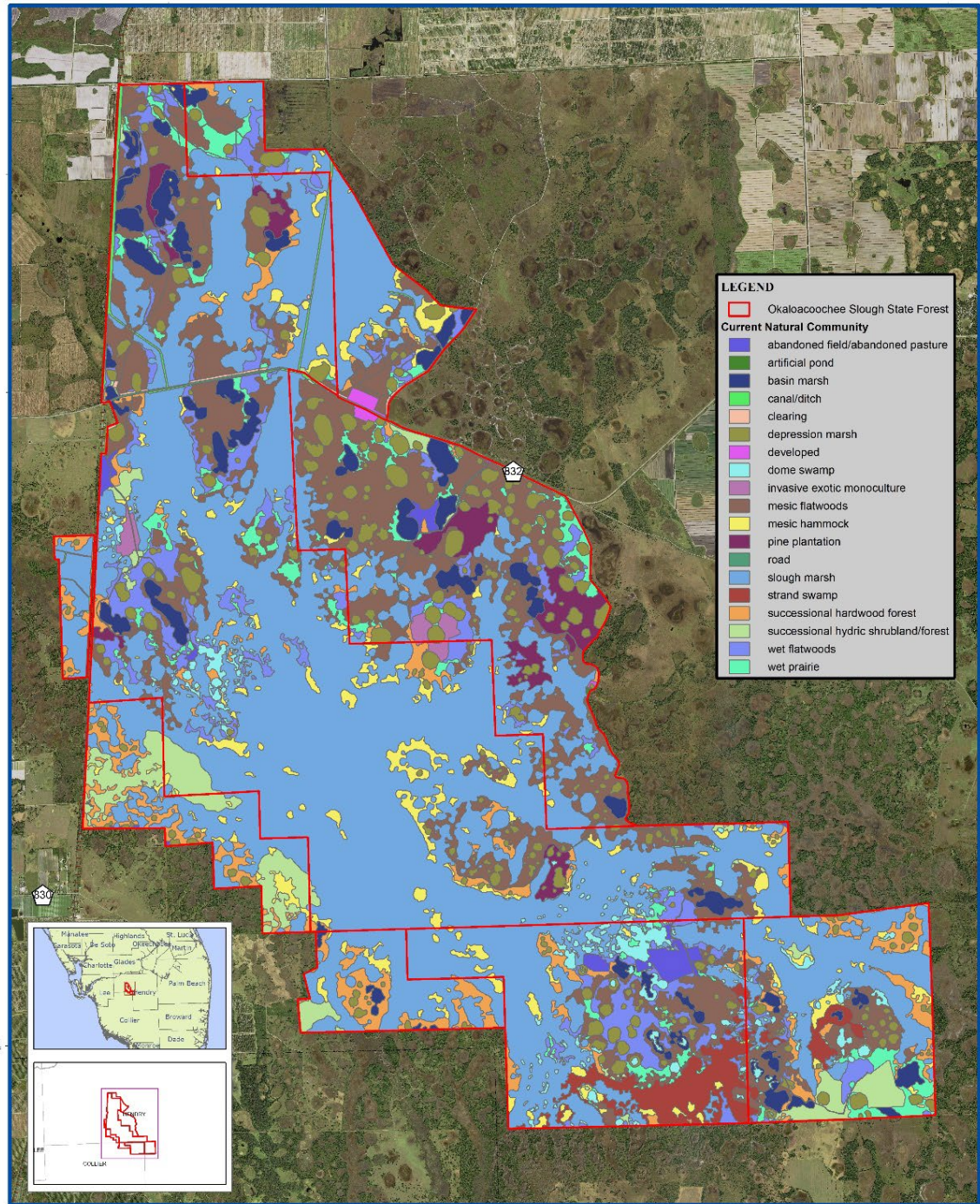
Okaloacoochee Slough State Forest

Current FNAI Natural Communities Cover Type Map

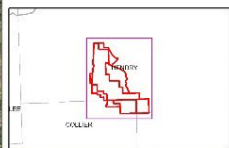
Coordinate System: Florida Albers
High Accuracy Reference Network (HARN) Datum

DISCLAIMER:
This map was prepared by the Florida Forest Service
and is intended for informational purposes only. It is not
guaranteed to be 100% accurate. The Florida Forest
Service does not assume any liability for errors or
omissions. The Florida Forest Service reserves the right
to change this map without notice.

Variegated Area: The variegated area is the
area where the Florida Forest Service is currently
conducting a study. The area is shown in a
variegated pattern on the map.



- LEGEND**
- Okaloacoochee Slough State Forest
 - Current Natural Community**
 - abandoned field/abandoned pasture
 - artificial pond
 - basin marsh
 - canal/ditch
 - clearing
 - depression marsh
 - developed
 - dome swamp
 - invasive exotic monoculture
 - mesic flatwoods
 - mesic hammock
 - pine plantation
 - road
 - slough marsh
 - strand swamp
 - successional hardwood forest
 - successional hydric shrubland/forest
 - wet flatwoods
 - wet prairie



0.25 0.5 0.75 1 1.25 1.5
Miles



81° 20' W

Map Month/Year: October 2023

1,000 500 0 1,000 2,000 3,000 4,000
Feet

Exhibit Q

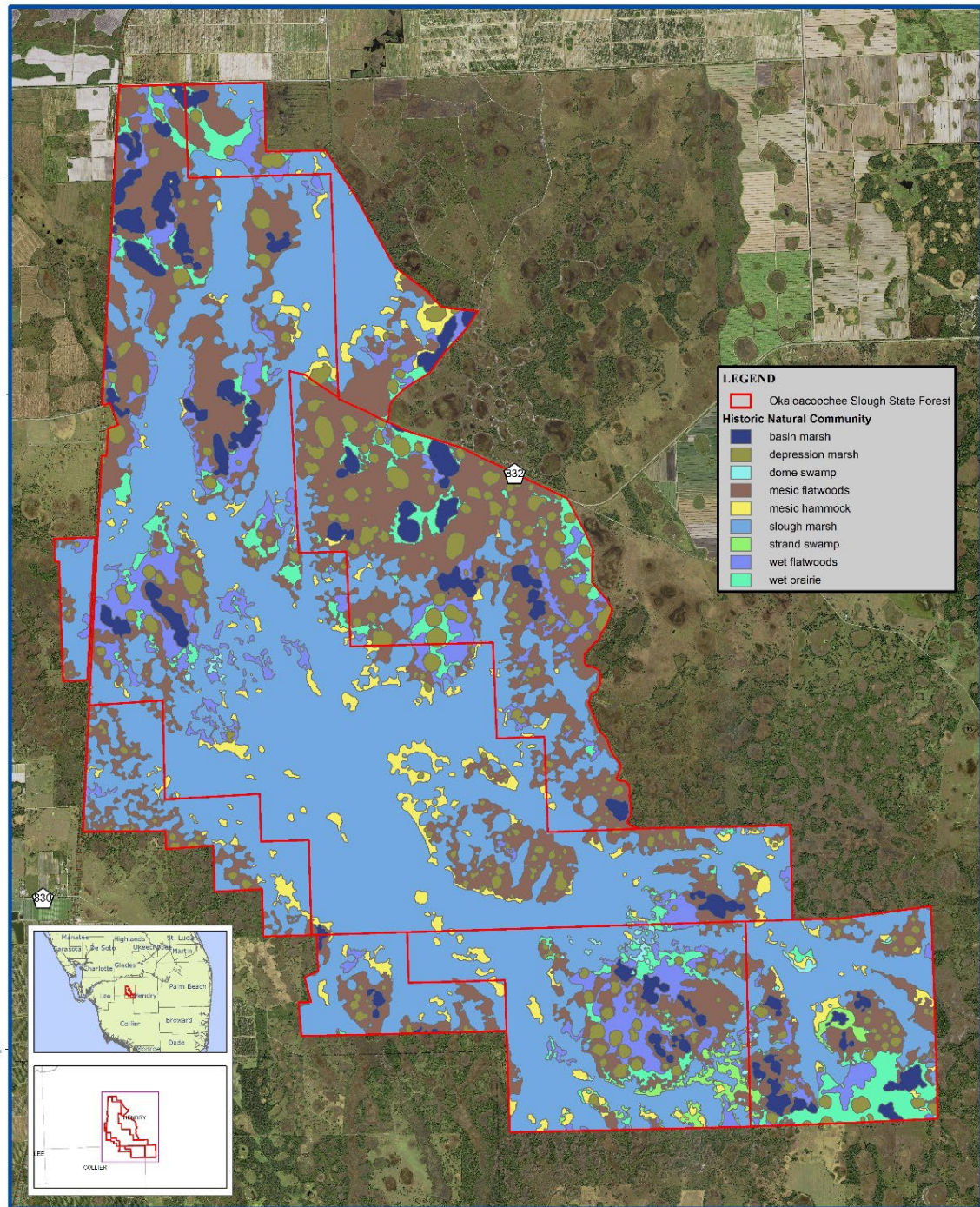
Historic FNAI Natural Communities Map



Okaloacoochee Slough State Forest

Historic FNAI Natural Communities Cover Type Map

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

[illegible]

0.25 0.5 0.75 1 1.25 1.5 Miles



Map Month/Year: October 2023



Exhibit R

Land Management Reviews

(2016 & 2021)

2016 Land Management Review Team Report for Okaloacoochee Slough State Forest

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- 3. Land Management Plan Review Details..... 8
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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 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, 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 Appendix is a compilation of feedback, concerns or other thoughts provided by individual team members. It is not necessarily indicative of the final consensus reached by the land management review team.

1.1. Property Reviewed in this Report

Name of Site: Okaloacoochee Slough State Forest

Managed by: Florida Forest Service (FFS)

Acres: 32,349.32

County: Hendry, Collier

Purpose(s) for Acquisition: To protect areas that are critical to maintaining South Florida's ecological integrity, and acquiring lands that are necessary for water management, water supply, and the conservation and protection of water resources.

Acquisition Program(s): SOR, P2000/CARL

Original Acquisition Date:

8/3/1995

Area Reviewed: TITF-owned portions

Last Management Plan Approval Date: 12/14/2012

Review Date: 6/3/2016

Agency Manager

- Heather Ferrand

Key Staff Present

- Chris Schmiede, Dexter Sowell, Anthony Curella, Ian Doyle, Melinda Avni

Review Team Members Present (voting)

- DRP: Matthew Hodge
- FWC: Dawn Dodds
- FFS: Bill Korn
- DEP: Greg O'Connell

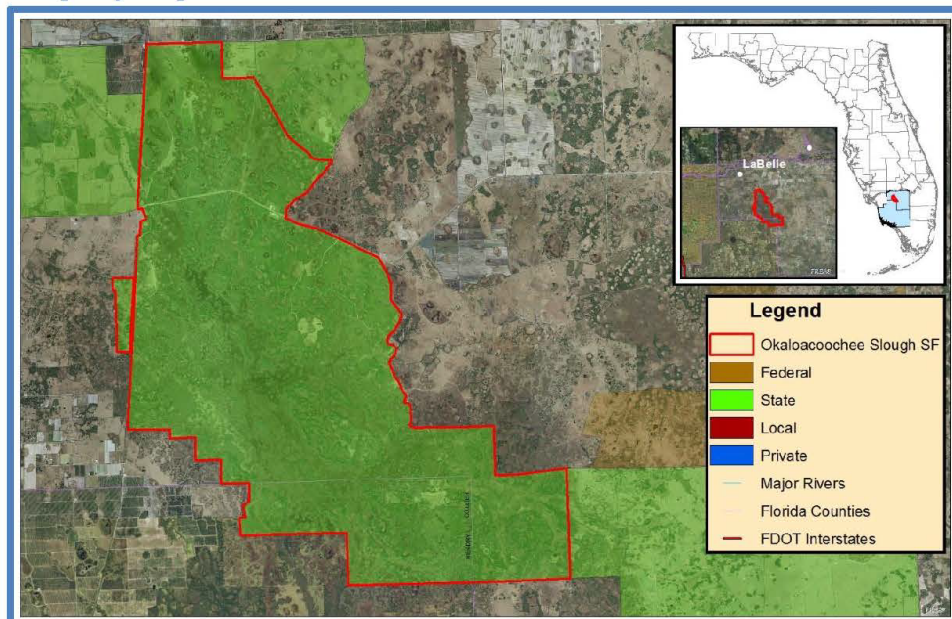
- SWCD:
- Local gov't: Christal Segura
- Conservation organization: Patsy McDonald
- Private land manager:

Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL

- Dennis Giardina, FWC IPM

1.2 Property Map



1.3. Overview of Land Management Review Results

Is the property managed in accordance with the purposes for which it was acquired?

Yes = 6, No = 0

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

Yes = 6, 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	4.50	4.38
Prescribed Fire / Habitat Restoration	4.42	4.49
Hydrology	4.27	2.79
Imperiled Species	4.00	4.06
Exotic / Invasive Species	4.28	4.42
Cultural Resources	4.58	4.67
Public Access / Education / Law Enforcement	4.29	4.09
Infrastructure / Equipment / Staffing	3.69	N/A

Color Code (See Appendix A for detail)

1.3.1 Consensus Commendations for the Managing Agency

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

1. The review team commends FFS for consistent and thorough post burn/fire monitoring. (6+, 0-)
2. The review team commends FFS for getting the majority of local staff through the DHR archeological resource monitor training. (6+, 0-)
3. The review team commends FFS for restoration activities that are occurring in the mesic flatwoods restoration sites, which have completed the replanting of 2,600 acres of South Florida slash pine largely from seed collected off the forest. (6+, 0-)
4. The review team commends FFS for staff commitment to locating, mapping, and treating invasive plants. (6+, 0-)
5. The review team commends FFS and FWC for supporting the wild hog hunting program that has contributed to a substantial reduction in hog damage on the forest. (6+, 0-)
6. The review team commends FFS for excellent work at construction and maintenance of the roads within the forest. (6+, 0-)

7. The review team commends FFS for increasing the average annual burn accomplishments on this forest. (6+, 0-)
8. The review team commends FFS for future recreation plans including bike paths and a dog training area. (6+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

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

1. The review team recommends that FFS add additional invasive species prevention strategies to the management plan; such as adding signage or education about EDRR for python and tegu sightings. (6+, 0-)

Managing Agency Response:

2. The review team recommends that FFS seek opportunities to improve general environmental, cultural, and invasive species interpretation at recreation trailheads and public access points. (6+, 0-)

Managing Agency Response:

3. The review team recommends that FFS evaluate monitoring strategies to determine the presence of large, exotic reptiles on the forest. (6+, 0-)

Managing Agency Response:

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 flatwoods, wet flatwoods, wet prairie, basin marsh, depression marsh, slough marsh, strand swamp, dome swamp, mesic hammock, and hydric hammock:**
2. **Listed Species Protection and Preservation, specifically for Florida panther:**
3. **Natural resource survey/monitoring, specifically listed species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring:**
4. **Cultural resources, specifically survey and protection/preservation:**
5. **Prescribed fire, specifically area being burned and quality:**

6. Restoration, specifically mesic flatwoods restoration:
7. Forest management, specifically timber inventory, timber harvesting, reforestation, and site preparation:
8. Non-Native, Invasive & Problem Species, specifically prevention and control of plants, animals, pests and pathogens:
9. Hydrologic/geologic function, specifically roads/culverts, and ditches:
10. Ground water and Surface water monitoring, specifically for water quality and quantity:
11. Resource Protection, specifically boundary survey, gates and fencing, signage, and law enforcement presence:
12. Public Access, specifically roads and parking:
13. Environmental Education and Outreach, specifically habitat management activities, interpretive facilities and signs, recreational opportunities, and management of visitor impacts:
14. Management Resources, specifically buildings and equipment:

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:**

The review team checklist scores did not identify items requiring improvement in the field.

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)										
Mesic Flatwoods	I.A.1	4	4	4	4	4	4			4.00
Wet Flatwoods	I.A.2	4	4	3	5	4	4			4.00
Wet Prairie	I.A.3	5	5	4	5	5	5			4.83
Basin Marsh	I.A.4	4	4	4	5	4	4			4.17
Depression Marsh	I.A.5	4	4	4	5	4	4			4.17
Slough Marsh	I.A.6	4	4	4	5	5	4			4.33
Strand Swamp	I.A.7	4	4	4	5	4	4			4.17
Dome Swamp	I.A.8	4	5	4	5	5	4			4.50
Mesic Hammock	I.A.9	5	5	4	5	5	4			4.67
Hydric Hammock	I.A.10	5	5	4	4	5	4			4.50
Natural Communities Average Score										4.33
Listed Species: Protection & Preservation (I.B)										
Animals	I.B.1	3	4	4	4	4	4			3.83
Panther	I.B.1.a	5	5	4	4	4	4			4.33
Plants	I.B.2	4	4	3	4	4	4			3.83

Listed Species Average Score										4.00
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	5	4	5	5	4			4.50
Other non-game species or their habitat monitoring	I.C.3	4	4	X	4	3	4			3.80
Fire effects monitoring	I.C.4	5	5	5	5	5	4			4.83
Other habitat management effects monitoring	I.C.5	4	5	3	4	4	4			4.00
Invasive species survey / monitoring	I.C.6	5	5	4	5	5	5			4.83
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	5	4	4	5	5			4.50
Protection and preservation	II.B	5	5	4	4	5	5			4.67
Cultural Resources Average Score										4.58
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	4	4	4	4	4			4.00
Frequency	III.A.2	3	3	3	3	3	3			3.00
Quality	III.A.3	5	5	5	5	5	5			5.00
Resource Management, Prescribed Fire Average Score										4.00
Restoration (III.B)										
Mesic Flatwoods Restoration	III.B.1	5	5	5	5	4	5			4.83
Restoration Average Score										4.83
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	5	4	4	5			4.67
Reforestation/Afforestation	III.C.3	5	5	4	4	4	5			4.50
Site Preparation	III.C.4	5	5	5	4	5	5			4.83
Forest Management Average Score										4.67
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1. a	5	5	5	5	5	5			5.00
prevention - animals	III.D.1. b	3	4	4	5	4	3			3.83
prevention - pests/pathogens	III.D.1. c	3	X	5	5	4	3			4.00
Control										
control - plants	III.D.2. a	5	5	4	5	5	3			4.50
control - animals	III.D.2. b	5	4	4	5	5	3			4.33
control - pest/pathogens	III.D.2. c	3	4	3	5	5	X			4.00
Non-Native, Invasive & Problem Species Average Score										4.28
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1. a	5	5	5	5	5	5			5.00
Ditches	III.E.1. b	4	5	4		5	5			4.60
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.80
Ground Water Monitoring (III.E.2)										
Ground water quantity	III.E.2. b	4	4	3	5	4	4			4.00
Ground Water Monitoring Average Score										4.00
Surface Water Monitoring (III.E.3)										
Surface water quantity	III.F.3. b	4	4	3	5	4	4			4.00
Surface Water Monitoring Average Score										4.00

Resource Protection (III.F)										
Boundary survey	III.F.1	5	5	4	4	5	4			4.50
Gates & fencing	III.F.2	5	5	4	4	5	4			4.50
Signage	III.F.3	4	5	4	5	4	4			4.33
Law enforcement presence	III.F.4	4	4	3	4	5	4			4.00
Resource Protection Average Score										4.33
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	3	4	4	4	4	4			3.83
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1. a	5	5	4	5	5	5			4.83
Parking	IV.1. b	5	4	4	4	5	4			4.33
Environmental Education & Outreach										
Wildlife	IV.2. a	4	4	4	4	4	3			3.83
Invasive Species	IV.2. b	3	5	4	4	3	3			3.67
Habitat Management Activities	IV.2. c	3	5	4	5	4	3			4.00
Interpretive facilities and signs	IV.3	4	5		5	4	4			4.40
Recreational Opportunities	IV.4	4	5	4	5	4	4			4.33
Management of Visitor Impacts	IV.5	4	5	5	5	4	4			4.50
Public Access & Education Average Score										4.24
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	3	5	3	4	4	4			3.83
Sanitary facilities	V.1.b	3	4	3	4	4	4			3.67
Infrastructure										
Buildings	V.2.a	4	5	4	5	3	4			4.17
Equipment	V.2.b	4	4	4	5	4	3			4.00
Staff	V.3	3	4	4	3	3	3			3.33
Funding	V.4	4	4	4	3	2	2			3.17
Management Resources Average Score										3.69

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 strand swamp and hydric 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 natural communities.**

Managing Agency Response:

2. **Non-native, Invasive & Problem Species, specifically prevention and control of pests/pathogens, received below average scores. This is an indication that the management plan does not sufficiently address prevention and control of invasive/problem species.**

Managing Agency Response:

3. **Ground water and surface water monitoring, specifically for water quantity, received below average scores. This is an indication that the management plan does not sufficiently address water monitoring.**

Managing Agency Response:

4. **Proposed managed area uses, specifically the proposed shooting range, received a below average score. This is an indication that the management plan does not sufficiently address to what degree this use is consistent with the purpose for which the property was acquired, or other restrictions.**

Managing Agency Response:

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)										
Mesic Flatwoods	I.A.1	5	5	5	5	5	5			5.00
Wet Flatwoods	I.A.2	5	5	5	5	5	5			5.00
Wet Prairie	I.A.3	5	5	5	5	5	5			5.00
Basin Marsh	I.A.4	5	5	5	5	5	5			5.00
Depression Marsh	I.A.5	5	5	5	5	5	5			5.00
Slough Marsh	I.A.6	5	5	5	5	5	5			5.00
Strand Swamp	I.A.7	2	1	1	5	2	2			2.17
Dome Swamp	I.A.8	5	5	5	5	5	5			5.00
Mesic Hammock	I.A.9	5	5	5	5	5	5			5.00
Hydric Hammock	I.A.10	2	2	2	2	2	2			2.00
Natural Communities Average Score										4.42
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	5	4	3	3	5			4.00
Panther	I.B.1.a	4	5	4	3	3	5			4.00

Plants	I.B.2	4	5	4	4	3	5			4.17
Listed Species Average Score										4.06
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	5	4	4	5	5			4.50
Other non-game species or their habitat monitoring	I.C.3	3	5		4	4	5			4.20
Fire effects monitoring	I.C.4	4	5	4	5	5	5			4.67
Other habitat management effects monitoring	I.C.5	4	5	4	4	4	5			4.33
Invasive species survey / monitoring	I.C.6	4	5	4	4	5	5			4.50
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	5	4	4	5	5			4.67
Protection and preservation	II.B	5	5	4	4	5	5			4.67
Cultural Resources Average Score										4.67
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	4	5	4	4	5	5			4.50
Frequency	III.A.2	4	5	4	3	5	5			4.33
Quality	III.A.3	4	5		4	5	5			4.60
Resource Management, Prescribed Fire Average Score										4.48
Restoration (III.B)										
Mesic Flatwoods Restoration	III.B.1	4	5	4	4	5	5			4.50
Restoration Average Score										4.50
Forest Management (III.C)										
Timber Inventory	III.C.1	4	4	5	4	4	5			4.33
Reforestation/Afforestation	III.C.3	4	5	4	4	4	5			4.33
Site Preparation	III.C.4	4	4	5	4	4	5			4.33
Forest Management Average Score										4.33
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1. a	3	5	5	5	5	5			4.67
prevention - animals	III.D.1. b	3	5	4	5	5	5			4.50
prevention - pests/pathogens	III.D.1. c	3	5	4	2	5	5			4.00
Control										
control - plants	III.D.2. a	4	5	4	5	5	5			4.67
control - animals	III.D.2. b	4	5	4	5	5	5			4.67
control - pest/pathogens	III.D.2.c	3	5	4	2	5	5			4.00
Non-Native, Invasive & Problem Species Average Score										4.42
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1. a	3	5	4	4	5	5			4.33
Ditches	III.E.1. b	3	5	4		5	5			4.40
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.37
Ground Water Monitoring (III.E.2)										
Ground water quantity	III.E.2. b	3	1	1	1	1	5			2.00
Ground Water Monitoring Average Score										2.00
Surface Water Monitoring (III.E.3)										

Surface water quantity	III.E.3. b	3	1	1	1	1	5			2.00
Surface Water Monitoring Average Score										2.00
Resource Protection (III.F)										
Boundary survey	III.F.1	4	5	4	4	5	5			4.50
Gates & fencing	III.F.2	3	5	4	4	5	5			4.33
Signage	III.F.3	3	5	4	4	5	5			4.33
Law enforcement presence	III.F.4	4	5	4	4	5	5			4.50
Resource Protection Average Score										4.42
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	3	5	4	4	5	3			4.00
Discussion of Potential Surplus Land Determination	III.G.3	3	3	3	4	3	3			3.17
Surplus Lands Identified?	III.G.4	3	3	5	4	5	3			3.83
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1. a	5	5	4	4	5	4			4.50
Parking	IV.1. b	5	5	4	4	5	4			4.50
Environmental Education & Outreach										
Wildlife	IV.2. a	3	3	3	3	3	4			3.17
Invasive Species	IV.2. b	3	3	3	3	3	4			3.17
Habitat Management Activities	IV.2. c	3	3	3	3	3	4			3.17
Interpretive facilities and signs	IV.3	3	3		4	3	4			3.40
Recreational Opportunities	IV.4	5	5	4	4	4	4			4.33
Management of Visitor Impacts	IV.5	4	4	4	4	3	4			3.83
Public Access & Education Average Score										3.76
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Recreational Trail Use	VI.A.1	5	5	4	5	4	4			4.50
Camping / Primitive	VI.A.2	4	5	4	5	4	4			4.33
Cattle Lease	VI.A.3	4	4	4	4	2	4			3.67
Hunting	VI.A.4	5	5	4	5	6	4			4.83
Fishing	VI.A.5	5	3	4	4	2	3			3.50
Equestrian Use	VI.A.6	4	5	4		3	4			4.00
Apiary	VI.A.7	4	5	4		3	4			4.00
Native Seed Collection	VI.A.8	5	5	4	5	3	3			4.17
Proposed Uses										
Bicycling	VI.B.1	4	5	4	5		3			4.20
Shooting Range	VI.B.2	2	2	2	5	1	3			2.50
Dog Training Area	VI.B.3	3	3	2	5	3	3			3.17

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*

2021 Land Management Review Team Report for Okaloacoochee Slough 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 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.

1.1. Property Reviewed in this Report

Name of Site: Okaloacoochee Slough State Forest

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

Acres: 32,349

County: Collier and Hendry

Purpose(s) for Acquisition: To protect areas that are critical to maintaining South Florida's ecological integrity, and acquiring lands that are necessary for water management, water supply, and the conservation and protection of water resources.

Acquisition Program(s): SOR, P2000/CARL

Original Acquisition Date: 8/3/95

Area Reviewed: Entire Property

Last Management Plan Approval Date: 12/14/12

Review Date: 2/26/21

Agency Manager and Key Staff Present:

- Michael Weston, Manager

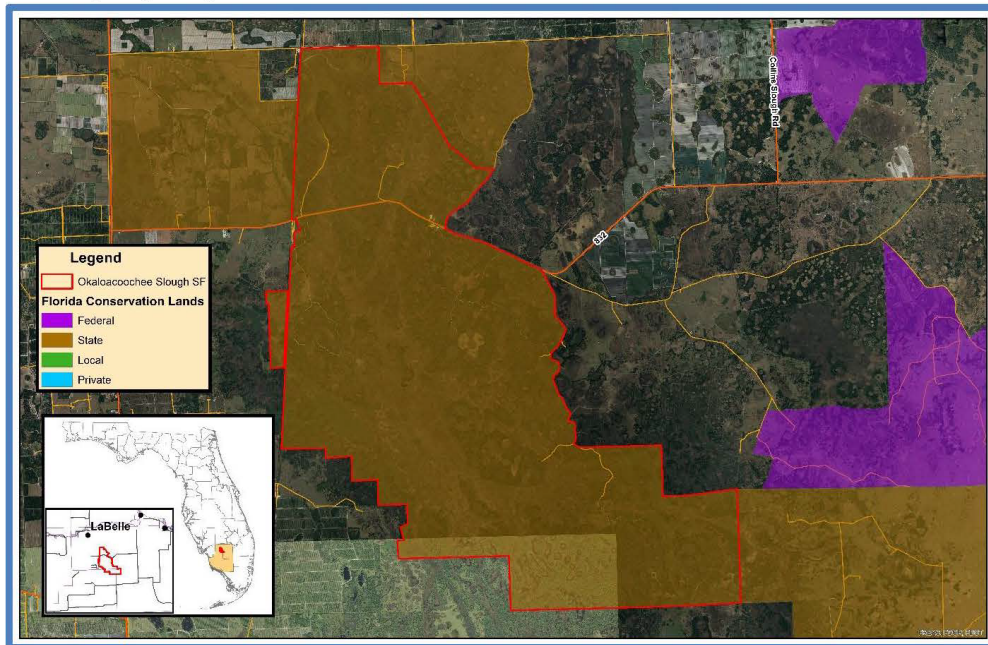
Review Team Members Present (voting)

- Matthew Hodge, DRP District
- Christal Segura, Local Gov't.
- Katelyn Horn, FWC
- Tori Gray, DEP District
- Clark Ryals, FFS
- Marie Dessources, SFWMD
- Conservation Org., None
- Private Land Manager, None

Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL

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 = 6, No = 0

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

Yes = 6, 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	4.50	4.38
Prescribed Fire / Habitat Restoration	4.33	4.39
Hydrology	4.06	3.32
Imperiled Species	4.18	4.01
Exotic / Invasive Species	4.25	4.00
Cultural Resources	4.67	4.83
Public Access / Education / Law Enforcement	4.66	4.13
Infrastructure / Equipment / Staffing	3.81	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

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 the improved, interpretive and informative signage on the boardwalk and elsewhere in the forest. (6+, 0-)
2. The team commends the FFS staff for the overall level of effort to control and maintain the exotic plant species at the forest. (6+, 0-)
3. The team commends the staff for the condition of the main access roads at the forest. (6+, 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:

There were no consensus recommendations.

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 flatwoods, wet prairie, basin marsh, depression marsh, slough marsh, strand swamp, dome swamp, mesic hammock, and hydric hammock.

2. Listed Species Protection and Preservation, animals and plants in general, and specifically Florida panther.
3. Natural resource survey/monitoring resources, specifically fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring.
4. Cultural resources, specifically survey and protection/preservation.
5. Resource management (prescribed fire), specifically frequency, and quality.
6. Restoration, specifically mesic flatwoods restoration.
7. Forest management, specifically timber inventory, timber harvesting, reforestation, and site preparation.
8. Non-native, invasive, and problem species, specifically prevention and control of plants, and animals, and prevention of pests/pathogens.
9. Hydrologic/geologic function, specifically roads/culverts, and ditches.
10. Ground water monitoring, specifically for water quantity.
11. Resource protection, specifically boundary survey, gates and fencing, signage, and law enforcement presence.
12. Adjacent property concerns, land use, specifically inholdings and additions.
13. Public access, specifically roads, and parking.
14. Environmental education and outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities, and management of visitor impacts.
15. Management resources, specifically waste disposal, and 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:

The review team scores did not identify items requiring improvement actions in the field.

2.3. Field Review Checklist and Scores

3. Land Management Plan Review Details

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Mesic Flatwoods	I.A.1	5	3	5	4	5	5			4.50
Wet Flatwoods	I.A.2	4	3	4	4	4	4			3.83
Wet Prairie	I.A.3	5	3	5	5	5	5			4.67
Basin Marsh	I.A.4	4	4	5	5	5	5			4.67
Depression Marsh	I.A.5	4	4	5	5	5	5			4.67
Slough Marsh	I.A.6	5	5	5	4	5	5			4.83
Strand Swamp	I.A.7	4	4	5	5	5	5			4.67

Dome Swamp	I.A.8	5	4	5	5	5	5			4.83
Mesic Hammock	I.A.9	4	4	5	5	5	5			4.67
Hydric Hammock	I.A.10	4	4	5	4	5	5			4.50
Natural Communities Average Score										4.58
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	3	5	4		5			4.20
Panther	I.B.1.a	4	4	5	4	4	5			4.33
Plants	I.B.2	3	3	5	4		5			4.00
Listed Species Average Score										4.18
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	3	5	4	3	5			3.83
Other non-game species or their habitat monitoring	I.C.3	3	3	5	4	3	5			3.83
Fire effects monitoring	I.C.4	4	4	5	5	4	5			4.50
Other habitat management effects monitoring	I.C.5	4	3	5	4	x	4			4.00
Invasive species survey / monitoring	I.C.6	5	4	5	4	4	5			4.50
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	4	5	5	4	5			4.67
Protection and preservation	II.B	5	4	5	5	4	5			4.67
Cultural Resources Average Score										4.67
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	3	4	4	4	4	4			3.83
Frequency	III.A.2	4	3	5	4	4	4			4.00
Quality	III.A.3	5	3	5	5	5	5			4.67
Resource Management, Prescribed Fire Average Score										4.17
Restoration (III.B)										
Mesic Flatwoods Restoration	III.B.1	5	3	5	5	4	5			4.50
Restoration Average Score										4.50
Forest Management (III.C)										
Timber Inventory	III.C.1	5	4	5	5	3	5			4.50
Timber Harvesting	III.C.2	5	4	4	5	4	5			4.50
Reforestation/Afforestation	III.C.3	5	4	5	5	3	5			4.50
Site Preparation	III.C.4	5	4	4	5	3	x			4.20
Forest Management Average Score										4.43
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	4	4	5	5	4	5			4.50
prevention - animals	III.D.1.b	5	3	5	4	4	5			4.33
prevention - pests/pathogens	III.D.1.c	5	3	5	4	3	5			4.17
Control										
control - plants	III.D.2.a	4	3	5	5	4	5			4.33
control - animals	III.D.2.b	4	3	5	5	4	5			4.33
control - pest/pathogens	III.D.2.c	4	3	5	4	3	4			3.83

Non-Native, Invasive & Problem Species Average Score										4.25
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	4	5	5	4	5			4.67
Ditches	III.E.1.b	5	3	5	5	x	4			4.40
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.53
Ground Water Monitoring (III.E.2)										
Ground water quantity	III.E.2.b	5	3	5	4	x	x			4.25
Ground Water Monitoring Average Score										4.25
Surface Water Monitoring (III.E.3)										
Surface water quantity	III.F.3.b	x	3	4	4	3	3			3.40
Surface Water Monitoring Average Score										3.40
Resource Protection (III.F)										
Boundary survey	III.F.1	5	4	5	5	x	5			4.80
Gates & fencing	III.F.2	5	5	5	5	4	5			4.83
Signage	III.F.3	5	5	5	5	5	5			5.00
Law enforcement presence	III.F.4	5	5	4	5	4	5			4.67
Resource Protection Average Score										4.83
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.G.2	5	5	4	5	x	5			4.80
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	5	4	5	4	5			4.67
Parking	IV.1.b	5	4	5	5	3	5			4.50
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	4	4	4	5			4.33
Invasive Species	IV.2.b	5	4	4	4	4	5			4.33
Habitat Management Activities	IV.2.c	5	4	3	5	4	5			4.33
Interpretive facilities and signs	IV.3	5	5	4	5	4	5			4.67
Recreational Opportunities	IV.4	5	5	5	4	4	5			4.67
Management of Visitor Impacts	IV.5	5	3	4	5	x	5			4.40
Public Access & Education Average Score										4.49
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	5	4	4	5	3	5			4.33
Sanitary facilities	V.1.b	5	4	3	4	2	4			3.67
Infrastructure										
Buildings	V.2.a	5	4	4	4	3	4			4.00
Equipment	V.2.b	5	4	4	4	2	4			3.83
Staff	V.3	4	3	4	3	3	4			3.50
Funding	V.4	5	3	3	3	3	4			3.50
Management Resources Average Score										3.81

Color Code:	Excellent	Above Average	Below Average	Poor	See Appendix A for detail
		Missing Vote	Insufficient Information		

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. *Surface Water Monitoring, specifically quality, received a below average score. This is an indication that the management plan does not sufficiently address surface water quality monitoring.*

Managing Agency Response: *The Florida Forest Service will work with the South Florida Water Management District to plan and implement a surface water quality monitoring plan.*

2. *Adjacent Property Concerns, specifically discussion of potential surplus land determination, received a below average score. This is an indication that the management plan does not sufficiently address adjacent property and/or surplus lands.*

Managing Agency Response: *The next land management plan update will include a better discussion of adjacent property concerns and potential surplus lands determination. The processes used for determinations will be explained. Managed area uses, specifically the proposed shooting range, received a below average score. This is an indication that the management plan does not sufficiently address managed area uses.*

3. *Managed area uses, specifically the proposed shooting range, received a below average score. This is an indication that the management plan does not sufficiently address managed area uses.*

Managing Agency Response: *No suitable location was found. A shooting range has been determined to be an incompatible use. The shooting range will not be included in the next land management plan update.*

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)										
Mesic Flatwoods	I.A.1	5	3	5	5	5	5			4.67
Wet Flatwoods	I.A.2	4	3	5	5	4	5			4.33
Wet Prairie	I.A.3	4	3	5	5	4	5			4.33
Basin Marsh	I.A.4	3	3	5	5	4	5			4.17
Depression Marsh	I.A.5	3	4	5	5	4	5			4.33

Slough Marsh	I.A.6	4	5	5	5	4	5			4.67
Strand Swamp	I.A.7	3	4	5	2	4	5			3.83
Dome Swamp	I.A.8	4	4	5	5	4	5			4.50
Mesic Hammock	I.A.9	5	4	5	5	4	5			4.67
Hydric Hammock	I.A.10	4	4	5	2	4	5			4.00
Natural Communities Average Score										4.35
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	3	3	5	4		5			4.00
Panther	I.B.1.a	3	3	5	3	4	5			3.83
Plants	I.B.2	4	3	5	4		5			4.20
Listed Species Average Score										4.01
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	3	3	4	4	3	5			3.67
Other non-game species or their habitat monitoring	I.C.3	4	3	4	5	3	5			4.00
Fire effects monitoring	I.C.4	3	4	5	5	4	5			4.33
Other habitat management effects monitoring	I.C.5	3	3	4	4		5			3.80
Invasive species survey / monitoring	I.C.6	5	4	4	4	4	5			4.33
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	5	4	5	5	5	5			4.83
Protection and preservation	II.B	5	4	5	5	5	5			4.83
Cultural Resources Average Score										4.83
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	4	5	4	5	5			4.67
Frequency	III.A.2	5	3	5	4	5	5			4.50
Quality	III.A.3	5	3	5	5	5	5			4.67
Resource Management, Prescribed Fire Average Score										4.61
Restoration (III.B)										
Mesic Flatwoods Restoration	III.B.1	4	3	4	5	4	5			4.17
Restoration Average Score										4.17
Forest Management (III.C)										
Timber Inventory	III.C.1	4	4	5	5	4	5			4.50
Timber Harvesting	III.C.2	4	4	5	5	4	5			4.50
Reforestation/Afforestation	III.C.3	4	4	5	5	4	5			4.50
Site Preparation	III.C.4	4	4	4	5	3	5			4.17
Forest Management Average Score										4.42
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.E.1.a	3	4	5	4	5	5			4.33
prevention - animals	III.E.1.b	3	3	5	4	4	5			4.00
prevention - pests/pathogens	III.E.1.c	3	3	5	4	1	5			3.50
Control										

control - plants	III.E.2.a	3	3	5	5	5	5			4.33
control - animals	III.E.2.b	3	3	5	5	4	5			4.17
control - pest/pathogens	III.E.2.c	3	3	5	5	1	5			3.67
Non-Native, Invasive & Problem Species Average Score										4.00
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.F.1.a	5	4	5	4	4	5			4.50
Ditches	III.F.1.b	5	3	5	4		5			4.40
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.45
Ground Water Monitoring (III.E.2)										
Ground water quantity	III.F.2.b	5	2	5	2	2	3			3.17
Ground Water Monitoring Average Score										3.17
Surface Water Monitoring (III.E.3)										
Surface water quantity	III.F.3.b	1	2	4	2	2	3			2.33
Surface Water Monitoring Average Score										2.33
Resource Protection (III.F)										
Boundary survey	III.G.1	5	4	5	4	2	5			4.17
Gates & fencing	III.G.2	5	4	5	4	2	5			4.17
Signage	III.G.3	5	4	5	4	2	5			4.17
Law enforcement presence	III.G.4	5	4	4	5	2	5			4.17
Resource Protection Average Score										4.17
Adjacent Property Concerns (III.G)										
Land Use										
Inholdings/additions	III.H.2	5	3	5	4		5			4.40
Discussion of Potential Surplus Land Determination	III.H.3	1	1	3	2	1	4			2.00
Surplus Lands Identified?	III.H.4	5	4	5	5	5	5			4.83
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	5	5	5	3	5			4.67
Parking	IV.1.b	3	4	5	5	3	5			4.17
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	5	3	2	5			4.00
Invasive Species	IV.2.b	5	4	5	3	2	5			4.00
Habitat Management Activities	IV.2.c	4	4	4	3	2	5			3.67
Interpretive facilities and signs	IV.3	5	4	4	4	2	5			4.00
Recreational Opportunities	IV.4	5	4	5	4	4	5			4.50
Management of Visitor Impacts	IV.5	4	4	4	4	1	5			3.67
Public Access & Education Average Score										4.08
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Recreational Trail Use	VI.A.1	5	5	5	5	4	5			4.83
Camping / Primitive	VI.A.2	5	5	5	5	4	5			4.83
Cattle Lease	VI.A.3	2	2	4	5	3	5			3.50

Hunting	VI.A.4	5	2	5	5	4	5			4.33
Fishing	VI.A.5	5	3	3	5	4	5			4.17
Equestrian Use	VI.A.6	5	3	5	5	4	5			4.50
Apiary	VI.A.7	5	4	5	5	4	5			4.67
Native Seed Collection	VI.A.8	4	1	5	5	4	5			4.00
Proposed Uses										
Bicycling	VI.B.1	5	5	5	5	4	5			4.83
Shooting Range	VI.B.2	2	1	4	3		4			2.80
Dog Training Area	VI.B.3	5	3	5	5	4	5			4.50

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 S

Compliance with Local Comprehensive Plans (Collier and Hendry Counties)

From: [Ryan Alexander](#)
To: [Marsh, Emily](#); [Planning_Zoning](#)
Cc: [Camposano, Brian](#)
Subject: Re: Okaloacoochee Slough State Forest Draft Land Management Plan for Review
Date: Monday, December 30, 2024 10:26:21 AM
Attachments: [Outlook-1lcwonrs.png](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,

I do not see any conflicts with the Hendry County Comprehensive Plan.



Please Note: Florida has a very broad public records law. Most written communications to or from county officials regarding county business is a public record and available to the public and media upon request. Your e-mail communication and addresses are also subject to public disclosure.

From: Marsh, Emily <Emily.Marsh@fdacs.gov>
Sent: Thursday, December 26, 2024 12:49 PM
To: Planning_Zoning <Planning_Zoning@hendryfla.net>
Cc: Camposano, Brian <Brian.Camposano@fdacs.gov>
Subject: Okaloacoochee Slough State Forest Draft Land Management Plan for Review

Some people who received this message don't often get email from emily.marsh@fdacs.gov. [Learn why this is important](#)

Good Afternoon,

Please see the attached letter and management plan for Okaloacoochee Slough State Forest. We are asking that you review this plan for compliance with the County's Comprehensive Plan. Since the materials for the exhibits were too large to send digitally, we are sending a paper copy to your office via FedEx, which should arrive by Wednesday afternoon (tracking number 771036303077). Thank you!

If you have any questions, concerns, or if I may be of additional assistance, please do not hesitate to contact me directly.

Sincerely,

Emily

Emily Marsh

State Lands Management Planner

Florida Forest Service

Florida Department of Agriculture and Consumer Services

(850) 681-5889

Emily.Marsh@FDACS.gov

The Conner Building

3125 Conner Boulevard

Tallahassee, Florida 32399-1650

www.fdacs.gov

Please note that Florida has a broad public records law (Chapter 119, Florida Statutes). Most written communications to or from state employees are public records obtainable by the public upon request. Emails sent to me at this email address may be considered public and will only be withheld from disclosure if deemed confidential pursuant to the laws of the State of Florida.

CAUTION: This email originated from outside of Hendry County BOCC. If this email is unusual or unexpected, do not click any links or open any attachments until you contact the sender (not by email) and confirm the content is safe.

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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

December 26, 2024

Collier County Comprehensive Planning Section
2800 Horseshoe Drive N.
Naples, FL 34104
(239) 252-2400

RE: Okaloacoochee Slough State Forest 10-Year Land Management Plan

To Whom It May Concern,

Greetings from the Florida Forest Service (FFS). Attached is a copy of the Ten-Year Land Management Plan and Exhibits for Okaloacoochee Slough State Forest, prepared in accordance with F.S. 253.034. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Collier County's Comprehensive Plan.

Please address all correspondence concerning the Management Plan on official letterhead to the above mailing address or via e-mail. I can be reached by telephone at (850) 681-5889 or by email at Emily.Marsh@fdacs.gov if you have any questions.

Thank you for assisting us in managing Okaloacoochee Slough State Forest resources through a stewardship ethic to ensure they are available for future generations.

Sincerely,

Emily Marsh
State Lands Management Planner
Forest Management Bureau
Florida Forest Service

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

December 26, 2024

Hendry County Planning and Zoning Department
640 S Main Street
Labelle, FL 33935
(863) 675-5240
planning_zoning@hendryfla.net

RE: Okaloacoochee Slough State Forest 10-Year Land Management Plan

To Whom It May Concern,

Greetings from the Florida Forest Service (FFS). Attached is a copy of the Ten-Year Land Management Plan and Exhibits for Okaloacoochee Slough State Forest, prepared in accordance with F.S. 253.034. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Hendry County's Comprehensive Plan.

Please address all correspondence concerning the Management Plan on official letterhead to the above mailing address or via e-mail. I can be reached by telephone at (850) 681-5889 or by email at Emily.Marsh@fdacs.gov if you have any questions.

Thank you for assisting us in managing Okaloacoochee Slough State Forest resources through a stewardship ethic to ensure they are available for future generations.

Sincerely,

Emily Marsh
State Lands Management Planner
Forest Management Bureau
Florida Forest Service

Exhibit T

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Public Hearing
Okaloacoochee Slough State Forest
10-Year Land Management Plan
November 19, 2024
10:30 A.M.
Meeting Minutes

MPAG Members Present:

- | | |
|--------------------|--|
| • Michael Joel | Caloosahatchee Forestry Center Manager, Florida Forest Service (FFS) |
| • Joe Bozzo | Science Supervisor, South Florida Water Management District |
| • Josiah Freese | Representing Ryder Hochmuth, Florida Fish and Wildlife Commission |
| • Margaret England | Representative, Hendry, and Glades County Audubon Society |
| • Jamie French | Representing Representative McDaniel, Collier County Commissioner |

MPAG Members Not Present:

- | | |
|--------------------------------|---|
| • Conor Egan | Local Soil and Water Conservation District Representative |
| • Ivan Howard | Local Property Owner |
| • Dane Scofield | Local Property Owner |
| • Representative Karson Turner | Hendry County Commissioner |

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Michael Weston | Caloosahatchee Forestry Center Forestry Resource Administrator |
| • Thomas Gonzalez | Forest Area Supervisor |
| • James Kavanaugh | Forester |
| • Michael Knight | Biological Scientist III |
| • Emily Marsh | Land Management Planner |

Guests:

- William Hamilton

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 Okaloacoochee Slough 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 Okaloacoochee Slough State Forest (OSSF) 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 Naples Daily News on October 25, 2024, and Lake Okeechobee News on October 30, 2024; Florida Administrative Register, FFS webpage, as well as posted at the kiosks in the Caloosahatchee Forestry Center. The meetings were announced at the Collier County Board of County Commissioners meeting and Hendry County Board of County Commissioners meeting on October 22, 2024.

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 then requested MPAG Member introductions and attendance was taken.
- Mr. Davis asked the advisory group to elect an MPAG chairperson. Michael Joel was elected to serve as chairperson.
- Mr. Davis asked if there are any questions at this time. None followed.
- Mr. Davis then introduced Forestry Resource Administrator, Michael Weston who presented a PowerPoint presentation of the 10-Year Plan. Mr. Davis asked if there were any clarifying questions regarding the presentation. None followed.
- Mr. Camposano clarified that the audience may have seen references to another forest; however, everything content-wise reflected for OSSF. He continued to explain that the wheel is not reinvented structure for MPAGs and how we are presenting our plans. He concluded by apologizing if the group saw other forests, but this is all content on OSSF.
- Mr. Davis asked if there are any further questions. He then inquired about any speakers that wanted to speak and any additional public comment speaker forms that had not yet been collected. None followed.
- Mr. Davis then thanked everyone for participating and adjourned the public hearing portion of the meetings.

Public Meeting End Time: 11:03 A.M.

Management Plan Advisory Group Workshop Meeting
Okaloacoochee Slough State Forest
10-Year Land Management Plan

November 19, 2024

1:00 P.M.

Meeting Minutes

MPAG Members Present:

- | | |
|--------------------|--|
| • Michael Joel | Caloosahatchee Forestry Center Manager, Florida Forest Service (FFS) |
| • Conor Egan | Local Soil and Water Conservation District Representative |
| • Joe Bozzo | Science Supervisor, South Florida Water Management District |
| • Josiah Freese | Representing Ryder Hochmuth, Florida Fish and Wildlife Commission |
| • Margaret England | Representative, Hendry, and Glades County Audubon Society |
| • Jamie French | Representing Representative McDaniel, Collier County Commissioner |

MPAG Members Not Present:

- | | |
|--------------------------------|----------------------------|
| • Ivan Howard | Local Property Owner |
| • Dane Scofield | Local Property Owner |
| • Representative Karson Turner | Hendry County Commissioner |

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Michael Weston | Caloosahatchee Forestry Center Forestry Resource Administrator |
| • Thomas Gonzalez | Forest Area Supervisor |
| • James Kavanaugh | Forester |
| • Michael Knight | Biological Scientist III |
| • Emily Marsh | Land Management Planner |

Guests:

- None

Workshop Meeting Start Time: 1:00 P.M.

- Land Planning Coordinator, Alan Davis introduced himself and opened the OSSF MPAG Workshop. 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 Mike Weston was available to make proposed changes to the draft during the page-by-page review.
- Page 6: Mr. Freese suggested that long-term potential would be expanding the hiking trail system that already exists on OSSF and combining it with the Spirit of the Wild and Dinner Island Ranch (WMAs). Mr. Davis inquired if that pertains to for Goal 2. Mr. Freese stated that he thinks that would be under Goal 2. Mr. Davis stated that there is a section in the plan for planned recreation events. Mr. Freese agreed and stated that that would be better. Mr. Davis continued to explain that that suggestion would be more suitable there than in the Goals and Objectives section. He then suggested for Mr. Freese to hold his suggestion until they reach that section

within the plan, and they will address it then. Mr. Freese agreed. He then suggested for Goal 5, regarding hunting season quotas and bag limits, to reemphasize and implement language about submitting rule change proposals, as needed, to modify specific hunting season quotas and bag limits to address hunting issues. He explained that the way FWC does it, they have to submit rule change proposals and further suggested to add language in regarding rule change proposal prior to developing specific hunting season quotas and bag limits to better emphasize the process that FWC has to follow when they submit their change proposals. Mr. Davis stated that he wants to avoid misconception on rule because that is FWC's rule and not FFS's rule. He then stated that as long as FFS is cooperating with FWC, and FWC has updated brochures, dates, bag limits, quota season dates, etc. then it is not necessary to include into the ten-year plan about FWC's rule. Mr. Freese stated ok. Mr. Joel explained that they submit every year. Mr. Freese inquired Mr. Joel if they submit the rule change every year. Mr. Joel stated that they do. Mr. Freese stated ok and explained that Mr. Hochmuth just wanted to emphasize that we have to do it as part of the rule change, and not just because FWC is doing this. Mr. Joel agreed and stated that it also goes for comments; that comments go into the comments box and comes back to FFS sometime during the Springtime. Mr. Freese stated yes. Mr. Davis stated that as long as we maintain that relationship, then our process can remain separate from FWC's process. Mr. Freese agreed. Mr. Davis inquired if there was anything else on page 6.

- Page 7: Mr. Freese suggested adding in something about collaborating with partnering agencies to potentially help foster that relationship, specifically with OSSF to either Objective 1 or Objective 2. He further suggested to add something about including partners in burn planning for boundary units or governments adjacent public lands. Mr. Davis stated that there is a fire section in the plan and suggested that section would be better suited for that suggestion. Mr. Freese stated ok and that he didn't know if it would fall under that, prescribed burning managed lands specifically; or for objective 2, if it would be better state it there instead of in the prescribed fire section since it is more of a planning thing. Mr. Davis stated that, to him, it's more of an obligation. He asked if they agree regarding the burning section of the plan states how we cooperate with other agencies. He then stated that we can look at that section when we get there and see if Mr. Freese's suggestion would be appropriate. He then inquired Mr. Joel if they should change or reject it. Mr. Joel cautioned in having any wording that includes anyone outside of FFS. He continued to state that we do cooperate, but FFS is also the overseers of prescribed fires in the state of Florida. He then stated that he doesn't know if changing that would involve changing a much larger issue. Mr. Joel asked Mr. Freese if he is suggesting language that reads "discussing and implementing ideas on boundary burns". Mr. Freese stated yes and explained that FWC has their cooperative group to be able to work with FFS and vice versa, so if we don't have to call that out in the plan specifically, then that's fine. He continued to state that the boundary units would be beneficial just so that at the start of FFS' burn year, you can have some units to refer to for that year so that FWC can also make sure their units are prepped on their side to either potentially burn through that fence on the same day with FFS or to just be able to plan out FWC's efforts better. Mr. Davis agreed and stated that that's more of a local communication reference rather than something for the 10-year management plan. Mr. Joel added that this is a ten-year plan doesn't believe that such a specific idea meets the objective of a ten-year plan. Mr. Davis agreed and suggested to share FFS's 5 year and annual burn plans and see if that works there. He then stated that he believes that it is more about local communication. Mr. Joel suggested that he would look at it more as of a one-year plan rather than in the ten-year plan. Mr. Davis and Mr. Freese agreed. Mr. Joel inquired if everyone was in agreement. Mr. Freese and group agreed. Mr. Freese stated that he will let Ryder know. Mr. Joel stated that this is the strategic goal to maintain the forest rather what Mr. Freese was referring to is a specific one-year plan. Mr. Freese stated that Ryder's goal would be to embody it somehow into the ten-year management plan on the broader scale; but to have a heightened level of conversation rather than to "hey, make sure you send that". He continued to state that having this language in the plan would reflect, "hey, this is in our plan to cooperate or to communicate without partner agencies or boundaries". He then stated that if FWC feels that it is more pertinent to the one-year plan, then that is fine. Mr. Joel stated that we'll be looking at it more and more, but the ten-year plan is supposed to be broader, and more general because this reflects the bigger picture for the next ten years. Mr. Freese stated that they are going off based on FWC's ten-year management plans. He continued to state that the FWC management plans are very inclusive because they do annual work plans

but are not writing annual management plans. Therefore, FWC's ten-year management plans are very inclusive. He continued to state that that was the mindset that Ryder was approaching with his suggestions. Mr. Davis inquired if there were any changes. Mr. Joel stated no change, but to add it to the one-year plan.

- Page 8: Mr. Freese stated that for Goal 5, to either collaborate with adjacent landowners or early detection rapid response, and with species management because FWC can help FFS with that. He then suggested to add in a performance measure for it how to quantify FFS is collaborating with FWC's WMA staff. Mr. Davis stated that later on in the plan there is an invasive species control section that could already be in the plan addressing Mr. Freese's statement. Mr. Joel stated that it wouldn't be listed as an objective; that it would be something specific to talk about. Mr. Davis agreed and added that that is something that would be built into the plan, if so. Mr. Freese stated ok. He then asked what page it would be on. Mr. Davis stated that it will be on page 43 under the Invasive species control. Mr. Freese stated ok. Mr. Davis stated that once we get there, we can reassess what Mr. Freese is thinking and see if it makes sense to put something in there. Mr. Freese stated that sounds good. Mr. Davis then inquired if there was anything else on page 8.
- Page 24: Mr. Davis requested the link be deactivated due to the possibility of it being out of date. He further stated to keep the words but to deactivate the link. A member inquired the concern. Mr. Davis explained that there is a link in there that directs the reader to the webpage. He further stated that if it's not an active link then five years down the road, that link may be wrong. Mr. Camposano stated that there is a reason that we put that in there. He explained that we wanted to reference the Basin Management Action Plan, and right now, that is where you get to it. He further explained that it is the direct link, but that we could look into adjusting that to forward to DEP.gov and leaving the rest of that off. He then stated that because it does falls within a Basin Management Action Plan and wanted to provide a link to get there. He concluded by stating that we can change it to forward you to DEP instead. Mr. Davis agreed and referenced to what DEP had told him in the past about links. Mr. Camposano agreed and explained that we didn't have a better option at the time so we can deal with that on the back end; unless there is a strong opinion from the MPAG group today. Mr. Davis stated that it should be fine.
- Page 23: Mr. Freese requested to go back to page 23. He stated that for wetland restoration, obviously coordinated with Southwest Florida Water Management District at the end, but it could have some sort of language of communicated with FWC again. He further stated that FWC is going to be doing a lot of wetland restoration on OSSF and Spirit, hopefully one day as well. He then stated that when FFS begins the work that hopefully they can tie into that work/land space-based restoration effort. He further suggested language such as "or communicated with"...Mr. Joel read out loud that "FFS and SFWMD will work with FWC on hydrologic evaluation on the effects of major canals". Mr. Freese apologized and inquired where Mr. Joel sees that language on page 23. Mr. Joel stated that it is in the second paragraph under Water Protection. Mr. Freese apologized and said that we are good then and is satisfied with that language. Mr. Joel inquired if Water Management was ok with that language. Mr. Bozzo stated yes. Mr. Davis inquired if there was anything else on page 23.
- Page 25: Mr. Freese stated that the Mangrove fox squirrel has new been reclassified, so that it should be either the Big Cypress fox squirrel, which is still state threatened; or, it is Southern fox squirrel, which has been delisted. He further stated for FFS to check their records on that. He continued to state that it should be Cypress because it's south of Caloosahatchee so it should stay as state threatened, but the species name will change. Mr. Camposano stated that this is an instance where FFS will take his recommendation from the get-go. Mr. Freese stated ok, then it should reflect as Big Cypress fox squirrel. Mr. Davis instructed Mr. Weston to make track change within the document. Mr. Camposano inquired if there is a subspecies for the Big Cypress fox squirrel. Mr. Freese stated yes, but then back tracked and stated that only the common name needed to be changed.
- Page 24: Mr. Knight stated that back on page 24 it reads, "there are nine animals and one plant species with either state or federal listed status" and continued to state that that needs revision since there is an entire table there. He continued to state that maybe it should have read as "state, federal, and endangered status". Mr. Camposano agreed. Mr. Knight continued to state that he would go through and check on that and make sure

the numbers are correct. Mr. Davis directed Mr. Weston to place a comment indicating the group to double check.

- Page 25: Mr. Freese commented that some statuses are listed as LT and others are listed as FT for federal status. Mr. Davis inquired if there was anything else on pages 24 or 25.
- Page 32: Mr. Freese inquired if the hiking facilities listed are proposed or if they will be addressed later in the plan. Mr. Weston stated that the proposed facilities are listed a few pages later. Mr. Davis stated that these are all existing facilities.
- Page 33: Mrs. England inquired if the Collier to Polk Regional Trail will impact on OSSF, because she cannot determine its impacts based on the maps. Mr. Weston stated that he doesn't know either. He continued to explain that it's in the planning phases so there are a bunch of steps they will need to jump through. He then stated if they get funded then OSSF will get permissions, etc. Mrs. England stated that the one meeting she attended sounded like they would go up through Sears, Goodno, and Ortona Locks because they were talking about bicycles crossing over the old railroad tracks. She then stated that she walks and that would be poor engineering work. Mr. Weston agreed and reiterated that they have a bunch of steps to get through first such as state forest impacts and ARC before they can proceed with that kind of development. Mrs. England agreed and stated that this is the DEP project. Mr. Camposano inquired Mrs. England if DEP came up with a defined route or if it was a series of routes. Mrs. England stated that, to her, it looked like it was just going to be along the road or highway, that doesn't look very appealing to her; but, if it did go into different habitats and regions, even if it went across the Ortona Locks that would be a very interesting trail. Mr. Weston added that DEP did approach them and asked OSSF staff for comment. He further stated that there was some initial stuff about them cutting across the slough and FFS stated that that wouldn't be possible for a whole bunch of reasons. Mrs. England agreed and added that the old railroad bed holds historical significance, and you would have to go through all kinds of loopholes to even do anything with those old railroad tracks. Mr. Weston agreed and added that currently the project is at a standstill, but it is a good topic to bring up, but we don't have anything concrete. Mrs. England stated that as long as that is in the plan then that is good. Mr. Camposano added that if we get to a point where the county and planning development folks for that trail/purchase comes to FFS and says "Hey, we want to move forward with this. This is what we got funding for and one of the options is on the forest", then FFS will do a plan amendment to add that into the plan. Mr. Davis agreed. Mr. Camposano further explained that presently, we do not want to talk about something that is out of our control. However, if we get to that point, then we will do a plan amendment, because we are not sure what is happening with that yet. There are studies, maps, and potential routes, but other than that, it's been pretty quiet. Mrs. England stated ok. Mr. Davis inquired if there was anything else on page 33.
- Page 35: Mr. Davis indicated to Mr. Freese where the planned facilities starts on that page.
- Page 36: Mr. Freese suggested considering the feasibility of creating or connecting trails from Spirit of the Wild through the state forest to Dinner Island. Mr. Davis inquired the group of their thoughts. Mr. Freese inquired if FFS would be interested in doing something that big. He then explained that in FWC's plans, they will say "consider feasibility of doing this". Mr. Davis stated that you can't specifically lay out everything until it actually becomes proposed amendment. Mr. Freese stated ok. Mr. Camposano inquired Mr. Freese that he would like a statement in the plan that FFS would explore or work with FWC on potentially connecting...Mr. Freese interjected stating that is how they have their plans written and then agreed with Mr. Camposano. Mr. Camposano stated that it is up to the MPAG Committee to add that language. He continued to state that his opinion would be to add a simple statement at the end of the trails section as its own paragraph. If the MPAG Committee agrees to that then sure, as it will not tie FFS's hands to say that we will have to do that, but at the same time, it opens the door a little bit...Mr. Freese explained that for FWC plans, they can't really have the discussion with FFS if they don't have it in their plans to consider this or contemplate that. He then stated if FFS doesn't need that in their plans then we're probably fine. Mr. Davis stated that the first statement generally covers a broad assessment of opportunities. Mr. Camposano and Mr. Davis both stated that it is up to the MPAG Committee. Mr. Davis continued to state that it's up to the MPAG Committee to decide on the language and where it is in the plan; so, if you want to propose language and put it there, and everybody agrees with it, then we're good. Mr. Freese stated that he proposes to state, "Consider the feasibility of connecting existing

trails". Mr. Camposano stated that we do not want to talk about something that is super conceptual, but this is our paper property where there is a real likelihood to do something like that. Mr. Freese agreed. He then stated that Mr. Hochmuth wanted to address, especially for user groups between state forests in the area for the WMA; especially since it doesn't talk about equestrian use, or something like that, has been an issue. He then elaborated stating that there have been conversations regarding equestrian use on the southern roads from the camping areas to the lead area. He then asked if FFS has had conversations with Mr. Hochmuth about that. Mr. Weston stated that they have had conversations to say if FWC wants people going over to the FWC side, then Mr. Hochmuth would be open to it. Mr. Freese agreed and stated that he believes that is Mr. Hochmuth's biggest concern. Mr. Weston stated that there is language in the plan for hunting, that FFS examined additional access points in the WMA area. Mr. Joel inquired if we could propose something that we listed biking, hunting and equestrian use or if Mr. Hochmuth was only thinking about addressing one of them. Mr. Freese stated that he could not recall at the moment if he was pro-equestrian or anti-equestrian use in the WMA, but he remembered that horses came up in conversation, and talking about those access points between the forest and WMA. Mr. Joel stated that they are just trying to figure out where to put that in the plan. Mr. Camposano agreed and stated that if it's going to be more than hiking trails, then to just put trails. Mr. Joel agreed and then suggested to put it under recreation. Mr. Davis stated that they're all trails. Mr. Joel agreed. Mr. Freese inquired if access points are discussed under hunting. Mr. Weston stated that he placed the language further down as well, but they are currently in the trails section. Mr. Camposano stated that you can make the statement about equestrian and hiking trails, or any kind of trails here, and then a separate statement under the hunting section. Mr. Joel added that Mr. Weston did place the statement under Hunting and Fishing. Mr. Camposano stated that if the statement is already under Hunting and Fishing, then you can make this statement here and cut the rest of the statement but leave in where it says trails. Mr. Freese stated that sounds good to him. Mr. Camposano stated that the whole group needs to be ok with this change. Mr. Freese inquired that Mr. Camposano proposed to remove the second sentence of that statement because it was covered in hunting. Mr. Weston stated that hunting will just be hunting so outside of hunting...Mr. Joel joked that unless they are hunting with their bicycles with horseback drawing them. Mr. Weston stated that this statement wouldn't hurt FFS. He explained that they already have a hiking trail that goes to Mustang Grade. He then stated that half of the Twin Mills hiking trail when he first came out here, he commented how unique it was for the trail to go to FWC property. He reiterated that OSSF is ok to have something like that since they already have a trail leading to FWC property. He concluded by stating that this statement would allow for the non-hunting part to help us through. Mr. Davis stated that unless there is something proposed for horses (when, where, and how), we don't really want to say until it's truly proposed. Mr. Freese agreed. Mr. Davis inquired Mr. Freese if he was good with the language. Mr. Freese stated yes. Mr. Davis then asked if all of the other MPAG members were ok with the language. All members agreed.

- Page 37: Mrs. England inquired if there was funding with these proposed changes or additions to these campgrounds. Mr. Davis stated that these are proposed. Mrs. England gave the example of where it states about having a new RV campground, a new campground with two to four campsites. She further inquired if these were proposed or funded. Mr. Davis stated they are proposed. Mr. Camposano stated that while these are proposed, we are at a juncture with state government, where we have more funding than we ever had before. He further stated that the likelihood of implementing these are much more heightened than when we did these plans five years ago. He continued to state that while the plans are conceptual, FFS definitely has asked the field to build out an idea, especially if they're going through a plan development process right now where we know we will have a little bit of funding. He then stated that he hopes a lot of those proposed will be implemented as long as we have funding sticking around for a little while. He stated that given that the source of the funding, he hopes that the funding will be available for some time but hopes to get a lot of those items completed. Mr. Weston stated that just mechanism wise for the field if they do not propose it in the plan, and later on get an idea to do it, then we have to look into a plan amendment. Mr. Camposano stated that we don't want spending funds to slow us down. Mrs. England inquired if adding maintenance and upkeep and extra personnel involved into the proposal or is that something different. Mr. Weston stated that a maintenance proposal is different and would be reflected in the annual expenditures and our mindset has been

to look to make sure we have the people in place before we move forward with such a proposal. Mrs. England stated ok. She further stated that that is good management. Mr. Davis inquired if there was anything else on page 37.

- Page 39: Mr. Weston emphasized that this section is where they talk about the hunting access points. Mr. Freese thanked Mr. Weston and stated that he saw that. Mr. Joel stated that this is also where you would add burn unit plans. Mr. Freese inquired clarification that if he were to propose burn unit plan that he would propose it on page 40. He further stated that it can just be a simple sentence stating “share boundary proposals” or something like that. He further acknowledged that burn plans change pretty regularly, and sometimes FWC we don’t burn in units, and we burn the next one. He then stated that the idea is that the collaboration is anticipated or remain in communication. Mr. Joel stated that you can easily add that under Fire Management. He then concluded that you can add it anywhere. Mr. Freese reiterated that a simple sentence about continuing collaboration with adjoining properties or others. Mr. Weston stated to go with adjoining properties so that they can capture adjacent, private landowners. Mr. Weston inquired the group is everyone was ok with that change. Mr. Davis inquired if there was anything else on page 39.
- Page 42: Mr. Davis pointed out to Mr. Freese where it states language about adjacent neighbor contacts, maintain a list of neighbors and notify them of prescribed burns. Mr. Freese stated that was all good, he just wanted to make sure that language was captured related to the planning stages of the logistics of prescribed burns to ensure FWC was on the same page as FFS. Mr. Davis stated ok
- Page 44: Mr. Knight stated that the first paragraph talks about adjacent landowners and FWC, which is a part of the previous paragraph related to primarily plants and questions raised earlier in the meeting. He further explained that our invasive species program works very closely with FWC, so a lot of that is coordinated with them. He exemplified the treatment plan for the new *Scleria* species, *Scleria eggersiana*, which already has active treatments going on across the border and in Dinner Island. He then stated that FFS received funding from FWC to get it all and there is no sense to leave some there to infest something else. Mr. Freese agreed and then inquired if there is anything being done in the southwest corner of the marsh. Mr. Knight stated yes. Mr. Freese inquired if it’s being treated aerially. Mr. Knight stated no. He then stated that it’s by ground and you can’t do it by air since it’s in little patches scattered all around. He explained that they will treat *Scleria lacustris* will be done by air because that’s big, huge expanses of monoculture. But for instances that are a “search and destroy” type of operation, they need to be treated on the ground. He then agreed there are some bigger areas, but most cannot be reached by helicopter because that species likes to tuck itself under cypress domes and such. He concluded that, regardless, FFS is coordinating with FWC. Mr. Freese agreed.
- Page 46: Mr. Weston joked that they are not trying to make the list in Table 6 longer.
- Mr. Davis inquired about any questions regarding the exhibits. None followed.
- Mr. Davis read and asked if any MPAG members had comments regarding the public hearing conducted earlier. Mr. Joel stated that supports the plan and thanks the partners for helping us and continue to be in this together. Mr. French stated that it is a great plan and inquired to consider communication in the future regarding the fire and prescribed burns. He explained that at the local government level, they will get calls from citizens complaining from outside the area. He then suggested enhanced efforts with Emergency Management partners for publications. He then inquired consideration of their corridors within conservation programs and other communities, that when we have prescribed burns adjoining properties, to perhaps, have some additional inner agency cooperation or communication because they will be out with each other anyways. He then stated that most of the times, at the local level, they will contract out or work through FFS to supervise those prescribed burns. He concluded by stating that Commissioner McDaniel would like more hunting access. Mrs. England stated her pleasure in increased recreational opportunities and that it is a good plan. Mr. Bozzo stated that it is a great plan and that he has been involved in this project since the beginning with FWC, initially. He stated that FFS has done great things and he looks forward to more things in the future. Mr. Egan stated that he thinks the plan is good and agrees with everything that is within the plan. He suggested that for those who are unfamiliar with NRCS, that they have financial assistance programs for private landowners. He then suggested if there are adjacent landowners or ranchers with issues like Brazilian pepper or cogongrass that they don’t have the means to treat, for them to reach out to NRCS for funding assistance. Mr. Freese said that it is a great

plan and thanked everyone for writing it and appreciate the ongoing collaboration between FFS and FWC. He then stated that he looks forward to growing that collaboration in the future, especially in regard to having better staffing in their areas. He thanked the group for the additions from FWC and expressed his appreciation in being at the MPAG.

- 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 April 11, 2025, public meeting.
- Mr. Davis thanked everyone for their time and participation and adjourned the meeting.

Workshop Meeting End Time: 1:50 P.M.

Exhibit U

State Forest Summary Budget

	OKALOACOOCHEE SLOUGH STATE FOREST MGT. ONLY 23-24 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 49,833	24.57%	\$ 170,522.14
Exotic Species Control	\$ 3,444	3.52%	\$ 24,454.68
		4.33%	
Prescribed Burning	\$ 30,053		\$ 30,053.22
Cultural Resources Management	\$ 120	0.12%	\$ 850.72
Timber Management	\$ 7,993	8.18%	\$ 56,760.95
Hydrological Management	\$ 478	0.49%	\$ 3,391.02
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 7,746	7.93%	\$ 55,011.55
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	\$ -	7.56%	\$ -
Central Office Headquarters	\$ -		\$ -
District/Regions	\$ -	7.56%	\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 32,706	33.47%	\$ 232,262.22
Land Management Planning	\$ 1,582	1.62%	\$ 11,235.32
Land Management Reviews	\$ 247	0.25%	\$ 1,756.55
Training/Staff Development	\$ 8,266	8.46%	\$ 58,704.26
Vehicle Purchase	\$ 324	0.33%	\$ 2,298.43
Vehicle Operations and Maintenance	\$ 16,394	16.78%	\$ 116,422.04
	\$ -		\$ -
OTHER SUPPORT	\$ 5,892	6.03%	\$ 41,845.62
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	\$ 19,509	19.96%	\$ 138,546.36
New Facility Construction	\$ 2,165	2.22%	\$ 15,374.97
Facility Maintenance	\$ 17,344	17.75%	\$ 123,171.39
			\$ -
Visitor Services/Recreation	\$ 14,116	14.44%	\$ 100,246.59
Information/Education	\$ 3,144	3.22%	\$ 22,328.64
Operations	\$ 10,972	11.23%	\$ 77,917.95
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 97,727.09	100.00%	\$694,013.66

Exhibit V

Arthropod Control Plans

Responses from Collier and Hendry Counties



600 North Road | Naples, FL 34104-3464 | P 239.436.1000 | F 239.436.1005

October 11, 2023

Michael Weston
Forestry Resource Administrator – Caloosahatchee Forestry Center
Florida Forest Service
Florida Department of Agriculture and Consumer Services
Tallahassee, FL 32399

Subject: Okaloacoochee Slough State Forest 10-year Land Management Plan

Dear Mr. Weston,

The Collier Mosquito Control District (CMCD/the District) appreciates the opportunity to provide input on the Okaloacoochee Slough State Forest (OSSF) 10-year Land Management Plan. The purpose of this letter is therefore to convey the District's current position on any potential mosquito control activities in Okaloacoochee Slough State Forest.

Based on a thorough evaluation of available data, it is CMCD's current position that mosquito control activities are not currently warranted within the Okaloacoochee Slough State Forest. The forest's geographical location falls outside the boundaries of our current service area. Our primary operational focus remains directed towards areas within or near residential areas, where nuisance and potential public health threats are more pronounced. However, it is worth noting that as our community continues to expand, implementing an Arthropod Control Plan may become advisable/necessary in the OSSF (at some point) to continue to provide valuable service in protecting public health and comfort. CMCD takes its integrated approach to mosquito management seriously and will work directly with FFS/OSSF management to develop a plan commensurate with all industry best practices for treatment within public lands.

We remain open to discussions regarding mosquito production in the forest, and nuisance and public health concerns that may arise in the future. CMCD looks forward to a continued partnership with the Florida Forest Service.

Sincerely,

A handwritten signature in black ink that reads "Pat P. Linn".

Patrick Linn, MS, MSHAPI
Executive Director
plinn@cmcd.org

Hangar | P 239.436.1008 | F 239.436.1007
Immokalee Substation | 2050 Commerce Avenue, Unit #7 | Immokalee, FL 34142 | 239.867.3200

Board of Commissioners D. Russell Burland, Chair | Ed Brandt, Vice-Chair/Secretary
Sandra Lee Buxton, Treasurer | Bruce J. Buchanan | John Johnson
Executive Director Patrick P. Linn, MS, MSHAPI

From: [Weston, Michael](#)
To: [Marsh, Emily](#)
Subject: FW: Arthropod Control Plan request
Date: Friday, September 15, 2023 5:20:16 PM
Attachments: [Arthropod Plan Request Letter 2023 OSSF Hendry.pdf](#)
[FDACS Arthropod Control Plan.pdf](#)
[ACP - DEP Letter 8-31-16.pdf](#)

Emily,

Here is the email to Hendry County. Forgot to copy you on the initial.

Michael Weston
Forestry Resource Administrator – Caloosahatchee Forestry Center
Florida Forest Service
Florida Department of Agriculture and Consumer Services

(239) 690-8021 Office
(239) 220-2404 Cell
(239) 690-8002 Fax
Michael.Weston@fdacs.gov

Caloosahatchee Forestry Center
10941 Palm Beach Blvd.
Fort Myers, FL 33905
www.fdacs.gov

Please note that Florida has a broad public records law (Chapter 119, Florida Statutes). Most written communications to or from state employees are public records obtainable by the public upon request. Emails sent to me at this email address may be considered public and will only be withheld from disclosure if deemed confidential pursuant to the laws of the State of Florida.

From: Weston, Michael
Sent: Friday, September 15, 2023 5:06 PM
To: Tommy Vaughan <tvaughan@hendryfla.net>
Cc: Joel, Michael <Michael.Joel@fdacs.gov>
Subject: Arthropod Control Plan request

Good afternoon Mr. Vaughan,

Please find the attached letter and supporting documentation to discuss arthropod control on Okaloacoochee Slough State Forest for our 10-year Land Management Plan revision. I look forward to working with you to document the need or lack of need for this work.

Please let me know if you have any questions.

Sincerely,

Michael Weston
Forestry Resource Administrator – Caloosahatchee Forestry Center
Florida Forest Service
Florida Department of Agriculture and Consumer Services

(239) 690-8021 Office

(239) 220-2404 Cell
(239) 690-8002 Fax
Michael.Weston@fdacs.gov

Caloosahatchee Forestry Center
10941 Palm Beach Blvd.
Fort Myers, FL 33905
www.fdacs.gov

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Exhibit W

Ground Water Monitoring Wells Map



Florida Forest Service

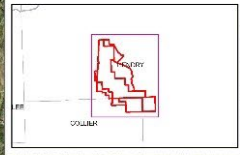
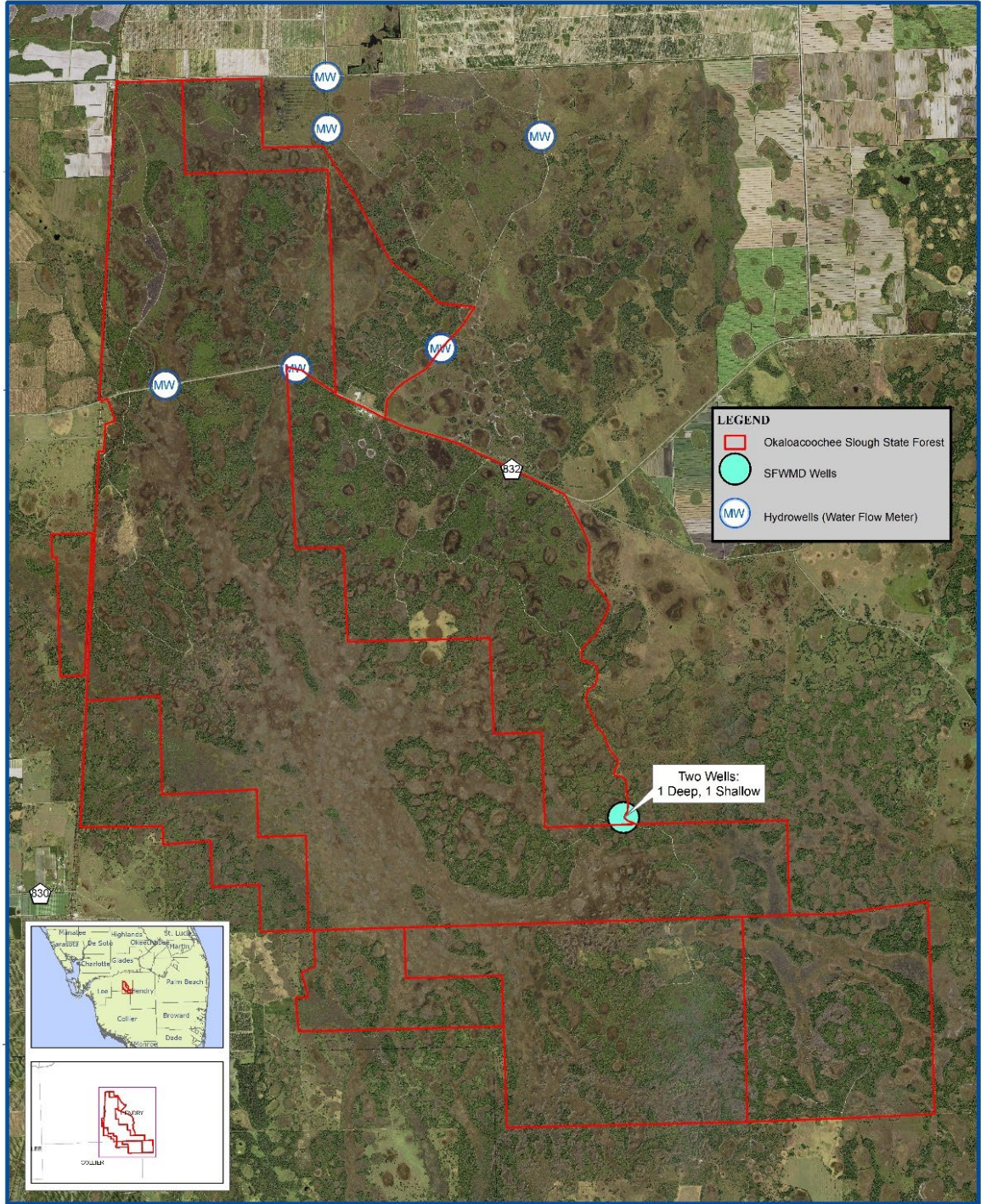
Okaloacoochee Slough State Forest

Monitoring Wells Map

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

DISCLAIMER:
The data and information on this map were obtained from various sources and are not guaranteed to be accurate or complete. The Florida Forest Service is not responsible for any errors or omissions on this map. The Florida Forest Service is not responsible for any damages or injuries resulting from the use of this map.

LEGEND:
Okaloacoochee Slough State Forest
SFWM Wells
Hydrowells (Water Flow Meter)



0.25 0.5 0.75 1 1.25 1.5
Miles



81° 42' W

Map Month/Year: November 2023

1,000 500 0 1,000 2,000 3,000 4,000
Yards

Exhibit X

Florida Forever Projects

Devil's Garden

Critical Natural Lands
Collier and Hendry Counties

<i>Year Added to Priority List</i>	<i>2002</i>
<i>Project Acres</i>	<i>82,995</i>
<i>Acquired Acres</i>	<i>35,353</i>
<i>Cost of Acquired Acres</i>	<i>\$63,395,000</i>
<i>Remaining Project Acres</i>	<i>47,642</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$174,110,470</i>

Purpose for State Acquisition

The Devil's Garden project will help to protect Florida's biodiversity at the species, natural community and landscape levels and fill a gap in a critical landscape corridor for the federally endangered Florida panther. Numerous records of panthers and other rare and threatened species have been noted on site. The project borders the Okaloacoochee Slough State Forest on the west and Dinner Island Wildlife Management Area to the south, providing crucial connectivity between existing conservation lands and increasing the amount of forestland available for sustainable management of natural resources.

General Description

The Devil's Garden project is in Hendry and Collier counties. The project's major parcel (71,608 acres) adjoins the eastern boundary of Okaloacoochee Slough State Forest and is roughly 18 miles long (east-west) and six miles wide (north-south). An additional parcel (6,445 acres) is adjacent to the northeastern boundary of the State Forest and Okaloacoochee Slough Wildlife Management Area. Two smaller parcels (3,328 acres and 1,127 acres) border the southwestern boundary of the state forest.

Devil's Garden is a huge tract of ranch land that has been heavily impacted by pasture conversion and other agricultural activities. Non-forested wetlands, including basin marsh, depression marsh, swale and wet prairie, make up the dominant natural communities still present on the property. Mesic and wet flatwoods have been mostly cleared and converted to pasturelands. Prairie hammocks were scattered throughout the property and formed irregularly shaped forests, usually with basin and depression wetlands. In a helicopter survey, a few small patches (approximately 15 acres) of dome swamp fringing swale systems could be seen in the project's southwestern parcels. These parcels have few remaining upland natural communities except for narrow fringes adjacent to wetlands and some remnant hammock.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida panther	G5T1/S1
Eastern indigo snake	G3/S2?
Gopher tortoise	G3/S3
Swallow-tailed kite	G5/S2
Florida black bear	G5T4/S4
Wood stork	G4/S2
Crested caracara	G5/S2
Little blue heron	G5/S4
White ibis	G5/S4

Public Use

The property can accommodate resource-based recreation, including camping, picnicking, hiking, nature study, wildlife observation, bicycling, horseback riding and environmental education. Depending on management emphasis, the land could provide significant hunting opportunities. Careful planning is required to coordinate hunting and wildlife observation.

Acquisition Planning**2002**

On December 5, 2002, the Acquisition and Restoration Council added the Devil's Garden project to Group A of the Florida Forever 2003 Priority List. This fee-simple project, sponsored by The Nature Conservancy and the Florida Forest Service, consisted of approximately 82,508 acres with a single owner, Alico Inc., and a taxable value of \$9,483,649.

2007

On December 14, 2007, the Acquisition and Restoration Council voted to move Devil's Garden to Group B of the 2008 Florida Forever Priority List.

2011

On December 9, 2011, Devil's Garden was classified as a Critical Natural Lands project.

2013

On June 17, 2013, the U.S. Department of Agriculture established a 11,591.18-acre conservation easement as part of its Natural Resources Conservation Service Wetlands Reserve Program.

2020

In September 2020, Phase 1B (consisting of the project's central and western parcels) was acquired fee simple from Alico, Inc. The acquisition contained 10,702.03 acres and was purchased at a cost of \$28,500,000.00. These parcels will be managed by the Florida Fish and Wildlife Conservation Commission as part of Okaloacoochee Slough Wildlife Management Area.





2021

In 2021, DEP acquired 7,355.86 acres fee simple from Alico, Inc. It will be managed by the Florida Fish and Wildlife Conservation Commission as part of Okaloacoochee Slough Wildlife Management Area.

Coordination

The Nature Conservancy is the intermediary and is working to find a purchaser for the eastern portion of the tract (farmland).

Management Policy Statement

The primary goals of management for the Devil's Garden project are to: increase protection of Florida's biodiversity at the species, natural community and landscape levels; protect, restore and maintain the quality and natural functions of the state's land, water and wetland systems; increase natural resource-based public recreational and educational opportunities; and increase the amount of forestland available for sustainable management of natural resources.

Manager(s)

The Florida Fish and Wildlife Conservation Commission is the recommended lead manager for most of the area (approximately 71,608 acres). The Florida Forest Service will manage the two westernmost parcels (approximately 10,900 acres) adjoining the Okaloacoochee Slough State Forest.

Management Prospectus

Qualifications for State Designation

Due to the diversity, and connectivity to the Okaloacoochee Slough State Forest, the two westernmost parcels (approximately 10,900 acres) qualify as state forests. The high wildlife resource values and the designation of primary or secondary panther habitat zones on the project qualify the eastern parcel (approximately 71,608 acres) as a wildlife management area.

Conditions Affecting Intensity of Management

Much of the project's drier natural community types have been disturbed, with many converted to some improved form of agriculture. This conversion usually involves some type of hydrologic alteration for water management. This property contains vast areas of wetlands with sensitive natural resources. Land management and public use will specifically be structured to improve and protect these areas.

Surrounding land uses are not expected to affect prescribed burning on this parcel. The level of management intensity and related management costs is expected to be initially high to obtain the necessary information and resources to restore and manage the system. Given the importance of this property to panther recovery, this link between habitat management and panther use will be critical to insuring the property is managed consistent with the primary purposes for acquisition.





The Devil's Garden project will require 14 FTE positions to manage the project area. Certain activities may be privatized, reducing the number of FTEs required. Funding for natural-resource management and public use administration would come from the Land Acquisition Trust Fund.

Management Implementation, Public Access, Site Security and Protection of Infrastructure

During the first year after acquisition, emphasis will be placed on site security, posting boundaries, public access, fire management, resource inventory, exotic species control and removal of refuse. Conceptual management plans will be developed describing the management goals and specific objectives necessary to implement future resource management.

Public use will be limited to activities that will have little or no impact to these areas. Vehicular use by the public will be confined to designated roads. Unnecessary access points will be closed. Both agencies will cooperate with and seek the assistance of other state agencies, local government entities and interested parties as appropriate.

Long-range plans for this property will generally be directed toward the restoration of disturbed areas and maintenance of natural communities. Disturbed sites will be restored to conditions that would be expected to occur in naturally functioning ecosystems. Management activities will also emphasize enhancing abundance and spatial distribution of threatened and endangered species. Multiple-use principles will be practiced with resource management goals and acquisition purposes in mind. An all-season prescribed burning management plan will be developed and implemented to improve the habitat quality of native fire-dependent plant communities and wildlife habitats.

Revenue-generating Potential

Management will seek to improve revenue-generating potential by improving wildlife diversity and resource-based recreation. Anticipated revenues from wildlife conservation will come from sales of hunting licenses, wildlife management area permits and other special hunting permits. Additional revenues might be generated from ecotourism and wildlife viewing activities. Timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in pine stands and will provide a variable source of revenue dependent upon a variety of factors. Due to the existing condition of the timber resource on the property, revenue generating potential of this project is expected to be low. Some revenues might be generated from agricultural farming contracts in areas currently being farmed as row crops until such areas can be restored in the interest of wildlife conservation.

Cooperators in Management Activities

The Florida Fish and Wildlife Conservation Commission and Florida Forest Service will cooperate with other federal, state and local government agencies, including the South Florida Water Management District.



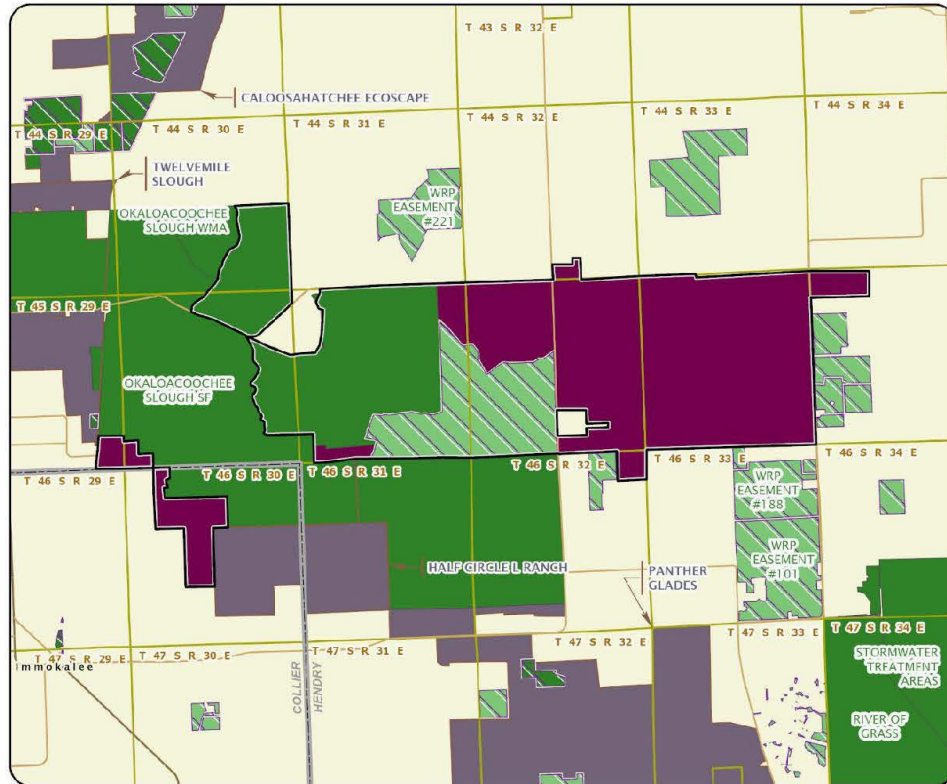


Management Cost Summary

<u>FWC</u>	<u>Startup</u>	<u>Recurring</u>
Source of Funds	LATF	not provided
Salary (6 FTE)	\$216,639	not provided
Expense	\$725,000	not provided
OCO	\$418,200	not provided

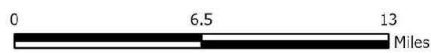
Source: Management Prospectus as originally submitted





DEVIL'S GARDEN

COLLIER AND HENDRY COUNTIES



Half Circle L Ranch

Critical Natural Lands

Collier and Hendry Counties

<i>Year Added to Priority List</i>	<i>2003</i>
<i>Project Acres</i>	<i>11,182</i>
<i>Acquired Acres</i>	<i>0</i>
<i>Cost of Acquired Acres</i>	<i>\$0</i>
<i>Remaining Project Acres</i>	<i>11,182</i>
<i>2021 Assessed Value of Remaining Acres</i>	<i>\$38,406,484</i>

Purpose for State Acquisition

The Half Circle L Ranch project will protect primary habitat zones for both the Florida panther and the Florida Black bear. The project will complement the ongoing conservation efforts in this region of the state for imperiled species, restore the habitat and hydrology of disturbed areas and provide public recreation compatible with resource protection.

General Description

Half Circle L Ranch adjoins the southern boundary of the Devil's Garden Florida Forever project, the southwestern boundary of the Dinner Island Wildlife Management Area, and the southeastern boundary of the Okaloacoochee Slough State Forest/ Wildlife Management Area in Collier and Hendry counties. The dominant communities on the property are basin and depression marshes, wet prairies, hydric and mesic hammocks and wet and mesic flatwoods. Almost half of the project has been converted to improved pasture, row crops and citrus.

According to the Florida Natural Areas Inventory, the project area is home to several rare species. More than 60 percent of the lands within the Half Circle L Ranch project proposal are designated as Strategic Habitat Conservation Areas. A majority of the site is classified as a Primary Zone for Florida panther and Florida black bear. The remainder of the site is identified as a Secondary Zone for panther habitat (buffer areas for dispersing cats or areas that could be converted to Primary Zone status with restoration) by the Panther Subgroup of the Multispecies/Ecosystem Recovery Implementation Team. Radio telemetry studies have confirmed panther use of the site.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida panther	G5T1/S1
Florida black bear	G5T4/S4
Florida sandhill crane	G5T2/S2
<i>narrow-leaved strap fern</i>	G4G5/S1
Florida burrowing owl	G4T3/S3
Crested caracara	G5/S2
<i>hand fern</i>	G4/S3
White ibis	G5/S4

Public Use

Due to its extensive wetlands, the project is limited in its ability to provide recreational opportunities. Hiking and horseback trails would be traversable in limited dry season conditions. In upland sites, the project can potentially accommodate camping, picnicking, wildlife observation and environmental education. Depending on management emphasis, hunting can also be supported.

Acquisition Planning**2002**

The project consists of 11,182 acres, multiple parcels and two owners. The 2002 tax assessed/taxable value was \$2,811,833.00.

2003

On June 6, 2003, the Acquisition and Restoration Council added this project to the A List of the Florida Forever projects.

2004

In 2004, the Acquisition and Restoration Council moved this project to the B List of the Florida Forever projects.

2011

On December 9, 2011, the Acquisition and Restoration Council placed this project in the Critical Natural Lands category.

Coordination

This project is adjacent to Okaloacoochee Slough State Forest and Dinner Island Wildlife Management Area. The Panther Glades and Devil's Garden Florida Forever projects are also adjacent to the site.

Management Policy Statement

The primary land management goal for the project is to restore, maintain and protect native ecosystems in perpetuity; to integrate compatible human use; and to ensure long-term viability of rare species populations. An ecosystem approach will guide the management activities on this project.





Manager(s)

The Florida Fish and Wildlife Conservation Commission is the designated lead manager for the project.

Management Prospectus

Qualifications for State Designation

The project's size and diversity make it desirable for use and management as part of Okaloacoochee Slough State Forest or Dinner Island Wildlife Management Area. Management is contingent upon the state obtaining legal public access to the site and acquiring fee simple title to the property. Major communities represented on this project include swale, slough, basin marsh, depression marsh, wet prairie, strand swamp, dome swamp, hammock, mesic and wet flatwoods. These community types are consistent with the adjacent state forest and wildlife management area.

Conditions Affecting Intensity of Management

Much of the project's drier natural community types have been disturbed; many have been converted to some improved form of agriculture. This conversion usually means some type of hydrologic alteration has occurred. This property contains vast areas of wetlands with sensitive natural resources; accordingly, land management and public use will be structured to improve and protect these areas. The level of management intensity and related management costs is expected to initially be high to obtain the necessary information and resources to restore and manage this system as a part of Okaloacoochee State Forest or Dinner Island Wildlife Management Area.

Once this information is obtained and the resources are available, long-term management costs are expected to be moderate. The Florida Fish and Wildlife Conservation Commission reports that wildlife habitat values and habitat restoration on the semi-improved pasture and native range areas could be improved and potentially restored by removing cattle grazing and utilizing prescribed fire.

Management Implementation, Public Access, Site Security and Protection of Infrastructure

Restoration of the natural communities on this project will be a priority. Initial or intermediate management efforts will concentrate on resource inventory, restoration planning, fire management and planning, site security, public access and removal of exotic species. The inventory of the site's natural resources and threatened and endangered flora and fauna will be conducted to provide the basis for formulation of management goals. Restoration efforts will focus on water flow alterations, ditching, agriculture improvements to the land, and perpetuating natural communities that have historically been changed. Steps will be taken to ensure that the public is provided appropriate access while also affording protection of sensitive resources. Public use will be limited to activities that will have little or no impact on these areas. Long-range goals will emphasize ecosystem management and the protection and management of threatened and endangered species. Essential roads will be stabilized to provide all-weather public access and management operations. Programs providing multiple recreational uses will also be implemented. An all-season prescribed burning management plan will be developed and implemented using appropriate guidelines. Management activities will strive to manage natural plant





communities to benefit native wildlife resources. Archaeological and historic sites will be managed in coordination with the Division of Historical Resources.

Revenue-generating Potential

Timber sales will be conducted as needed to improve or maintain desirable ecosystem conditions. These sales will primarily take place in pine stands and will provide a variable source of revenue. Because of the existing condition of the timber resource on the property, revenue generating potential of this project is expected to be low. Additional revenue would 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 ecotourism activities, which can be economically developed.

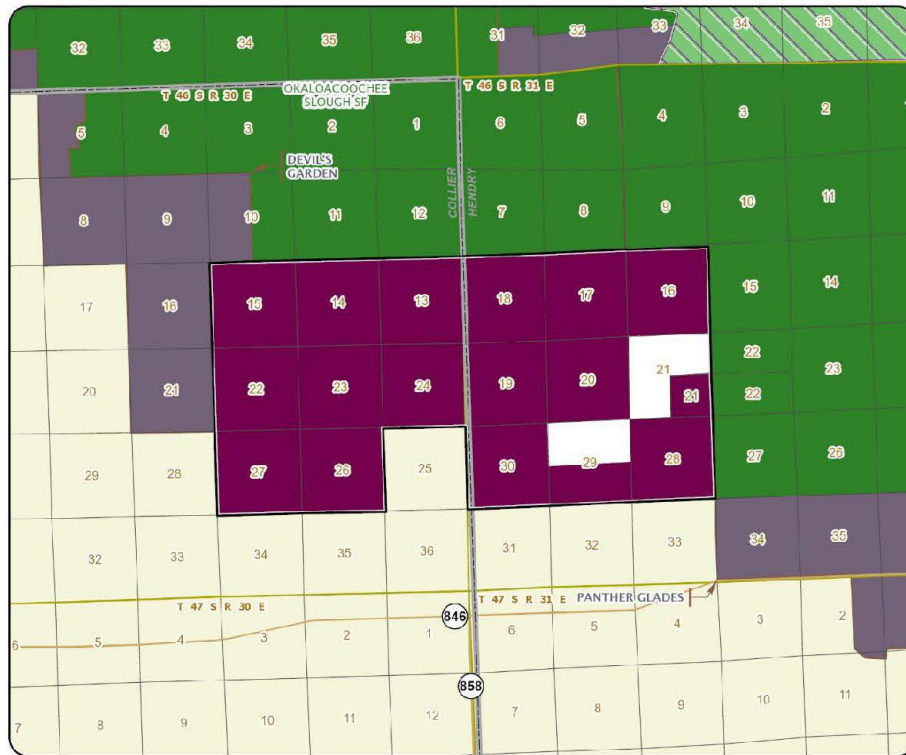
Florida Forever capital project expenditures will be needed on this parcel for hydrological restoration, public access and public use. This management prospectus is not intended to be an application for capital project expenditure; however, as more information is gathered and an analysis of the site is completed, an application may be submitted for capital project expenditure funds. It is anticipated that some of the existing roads will be used as multi-use trails for hiking, horseback riding and off-road bicycling. Management funding will come from the Land Acquisition Trust Fund or its successor.

Management Cost Summary

<u>FWC</u>	<u>Startup</u>	<u>Recurring</u>
Source of Funds	CARL	not provided
Salary (2 FTE)	\$70,751	not provided
Expense	\$261,372	not provided
OCO	\$300,600	not provided
TOTAL	\$632,723	not provided

Source: Management Prospectus as originally submitted





HALF CIRCLE L RANCH

COLIER AND HENDRY COUNTIES



Twelvemile Slough

Critical Natural Lands

Hendry County

<i>Year Added to Priority List</i>	2001
<i>Project Acres</i>	15,968
<i>Acquired Acres</i>	7,932
<i>Cost of Acquired Acres</i>	\$11,000,000
<i>Remaining Project Acres</i>	8,036
<i>2021 Assessed Value of Remaining Acres</i>	\$54,901,270

Purpose for State Acquisition

The Twelvemile Slough project will protect an exemplary twelve-mile-long slough, or “river of grass” natural community, that forms a broad band of emergent sedges, grasses and herbs running east through the southern part of the project. The Twelvemile Slough provides important habitat for many species, but particularly those that require extensive areas of habitat to maintain viable populations, such as the Florida panther.

General Description

The drainage basin of the proposal flows into the Okaloacoochee Slough project acquired by the South Florida Water Management District and Florida Forest Service. The Okaloacoochee Slough and its associated watershed ultimately flow into the Fakahatchee Strand.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida panther	G5T1/S1
Gopher tortoise	G3/S3
Swallow-tailed kite	G5/S2
Florida black bear	G5T4/S4
<i>Florida spiny-pod</i>	G2/S2
Florida sandhill crane	G5T2/S2
<i>redmargin zephyrlily</i>	G2G3/S2S3
Wood stork	G4/S2
Florida burrowing owl	G4T3/S3
Crested caracara	G5/S2
Glossy ibis	G5/S3
Snowy egret	G5/S3



Public Use

The Twelvemile Slough project is primarily a wetland system joining with the Okaloacoochee Slough that could provide excellent opportunities for wildlife and natural resource observation. To achieve maximum potential for these activities, airboats and other motorized equipment that disrupt the quiet atmosphere or disturb wetlands should not be allowed. Other recreational activities could include picnicking, camping, nature study trails, hiking trails and freshwater fishing. Hunting might also be considered appropriate if further review indicates this activity will not have an adverse impact on the property.

Acquisition Planning

2001

On April 6, 2001, the Acquisition and Restoration Council added the Twelvemile Slough project to Group B of the Florida Forever 2001 Priority List. This fee-simple and less-than-fee acquisition project, sponsored by The Nature Conservancy, consisted of approximately 14,419 acres, multiple parcels and four landowners (AandM of Hendry County LTD, Richard H. Roberts, Alico Inc. and McClure Properties LTD). The Roberts and Albritton parcels were designated as essential.

2002

On April 25, 2002, the Acquisition and Restoration Council approved a fee-simple, 1,416-acre addition to the project boundary. It was sponsored by the Division of State Lands and consisted of one owner, McClure Properties LTD. The landowner, with property already in the original boundary, requested the remainder of his ownership be added.

In June 2002, the state acquired 7,486 acres (Albritton tract) with Florida Forever Land Acquisition Program funds of \$11 million to be managed by the Florida Fish and Wildlife Conservation Commission as the Spirit of the Wild Wildlife Management Area.

2003

In December 2003, an additional 160-acre northern tract was acquired.

2006

On June 9, 2006, the Acquisition and Restoration Council moved this project to Group A of the 2006 Florida Forever Priority List.

2008

In May 2008, a correction to the boundary was warranted and the 160 acres of land purchased in 2003 was officially incorporated into the Spirit of the Wild Wildlife Management Area boundary.

2011

On April 15, 2011, the Acquisition and Restoration Council recommended an 87-acre boundary reduction for land occupied by residential development, commercial buildings or infrastructure.

On May 27, 2011, a donation of 310.08 acres was received from AGBLLC of Florida as the result of panther mitigation. The Florida Forest Service will manage this property as part of Okaloacoochee Slough State Forest.





On December 9, 2011, the Acquisition and Restoration Council placed this project in the Critical Natural Lands category.

Coordination

There is some potential for cost sharing with the South Florida Water Management District and The Nature Conservancy.

Management Policy Statement

The principal purposes of the project are to protect habitat important to the Florida panther and other species of concern, as well as to preserve the hydrologic connection between protected lands to the east and south. The project should be managed under the multiple-use concept whenever possible; management activities should be directed first toward conservation of resources and second toward carefully controlled consumptive uses. Managers should control access to the project, thoroughly inventory resources and monitor management activities to ensure that they are conserving site resources. Managers should limit educational and recreational facilities, ensure that they avoid the most sensitive resources and site them in already disturbed areas when possible.

Manager(s)

The Florida Fish and Wildlife Conservation Commission is recommended as lead manager. The Florida Forest Service is recommended as a cooperating agency.

Management Prospectus

This project is part of the larger Okaloacoochee Slough wetlands that partially serve as headwaters of Fakahatchee Strand State Preserve and Big Cypress National Preserve. The land in this project serves to protect groundwater and habitat for species like the Florida panther and snail kite. Strategic habitat conservation areas for some of these species comprise roughly a quarter of the project lands. The entire length of the eastern boundary of the project is contiguous with the 32,162-acre Okaloacoochee Slough State Forest/Wildlife Management Area. The following purposes should guide development of management goals: assessing current land use and natural resources to determine existing conditions and future requirements for inventory and monitoring; conserving, protecting and restoring cultural resources, landscapes, forests, water resources and other elements important to ecosystem functions; conserving, protecting and restoring characteristic biological diversity original to natural communities, including protecting, maintaining or enhancing conditions for rare, threatened and endangered species; developing and adapting project plans, procedures and techniques for improved success in meeting management goals, including the Florida Panther Habitat Preservation Plan; and establishing multiple-use natural resource-based recreation opportunities that are compatible, and which are consistent with the other resource conservation purposes and management goals for the area.

Qualifications for State Designation

The Twelvemile Slough project has the resource diversity to qualify as a wildlife management and environmental area. In 2002, a portion acquired became the Spirit of the Wild Wildlife Management Area.



**Conditions Affecting Intensity of Management**

Biotic surveys should be a priority, since there are potentially many rare or listed species. Some portions of the Twelvemile Slough proposal include lands that are low-need tracts, requiring basic resource management including the frequent use of prescribed fire where appropriate. However, because 57 percent of the uplands have been developed for agriculture or other purposes, significant restoration activities are proposed for at least some of this acreage. The primary management needed for perpetuation of the less disturbed natural communities would involve hydrological restoration, re-establishing native groundcover, exotic vegetation control, prescribed fire and control of conservation-compatible access by the user community.

Proposed uses of the area include opportunities for hunting, camping, hiking, environmental and cultural resource education and other recreation activities. Since the principal purposes of the project is to protect habitat for the Florida panther and other species of concern, management goals will be oriented to conservation and protection of these species and to education and regulation of the user community. Development of facilities would be kept to the minimum level necessary to assure a high-quality recreational experience; any such development would be confined to areas of previous disturbance.

Restoration would be guided by established procedures and techniques, improved through adaptive management themes, and would emphasize re-establishing native plant communities on pasture and hydrological restoration. Infestations of invasive exotic species, including Brazilian pepper, water hyacinth and tropical soda apple, occur within the area. There will be efforts to eradicate or control the infestations to reduce the potential for further spread.

Management Implementation, Public Access, Site Security and Protection of Infrastructure

During the first year after acquisition, emphasis will be on site security, posting boundaries, relationships with stakeholders, public-use assessments, fire management, resource inventories, exotic species control and removing refuse. A conceptual management plan, developed by the Florida Fish and Wildlife Conservation Commission with a stakeholder-based management advisory group, will specify management goals and objectives.

Longer-range activities would focus on meeting goals and objectives in the conceptual management plan. They include prescribed fire, habitat restoration, protecting or propagating critical habitat for listed species and expanding recreation opportunities. Essential roads would be stabilized and maintained for public and management access. Floral and faunal inventories and evaluations of the management projects would be continually updated by Florida Fish and Wildlife Conservation Commission biologists and would be supplemented as available with data from other sources. Timber resources consist of South Florida slash pine in areas of mesic flatwoods.

To meet wildlife habitat management objectives, sustainable timber harvests will be conducted using acceptable silviculture practices in consultation with the Florida Forest Service. Environmentally sensitive





areas will be identified, and appropriate protective measures will be implemented on those areas. Unnecessary roads, fire lanes and hydrological disturbances will be abandoned or restored as practical.

Minimal infrastructure development will be required to allow public access, provide facilities for the public and provide security and management of the property.

Estimate of revenue-generating potential

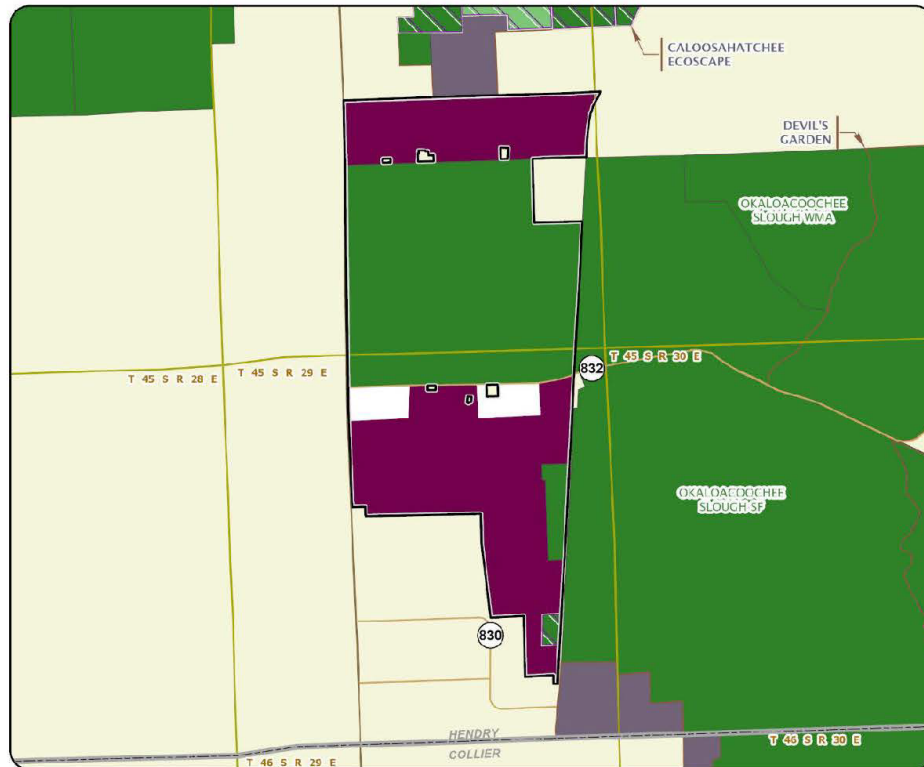
Currently, forest products production is limited on the project area. Revenue would be from sales of hunting licenses, fishing licenses, wildlife management area stamps and other special hunting stamps. Some future revenues might be from other nature-based recreation opportunities and cattle-grazing contracts. About 13 percent of the project is pine flatwoods that could be managed to offset operational costs. But future revenue from timber resources will depend on appropriate plant-community and hydrologic restoration. The Florida Fish and Wildlife Conservation Commission will cooperate with federal, state and local government agencies and non-government organizations, to the greatest extent possible. It is anticipated that the Florida Fish and Wildlife Conservation Commission will need the most assistance and cooperation from the following: the Florida Fish and Wildlife Conservation Commission will require three full-time positions to manage this area and will contract with various private entities to procure services and materials to conduct resource management, capital improvements and visitor services within the project.

Management Cost Summary

FFS	Startup	Recurring
Resource Management	\$273,692	\$328,199
Administration	\$125,926	\$125,926
Support	\$106,207	\$25,441
Capital Improvements	\$565,196	\$51,763
Visitor Services/Recreation	\$192,565	\$10,323
Law Enforcement	\$9,350	\$9,350
TOTAL	\$1,272,936	\$551,002

Source: Management Prospectus as originally submitted





TWELVEMILE SLOUGH

HENDRY COUNTY

