Land Management Plan Compliance Checklist

Required for State–owned conservation lands over 160 acres (Updated July 2025)

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	Unit Management Plan– Introduction, Page 2
2	The land acquisition program, if any, under which the property was acquired.	18–2.018 & 18–2.021	Unit Management Plan– Introduction, Page 2
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18–2.021	Appendix – Land Acquisition History
4	The legal description and acreage of the property.	18–2.018 & 18–2.021	Appendix – Land Acquisition History
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	Unit Management Plan – Existing Facilities Map, Page 54
6	An **assessment** as to whether the property, or any portion, should be declared surplus. *Provide Information regarding **assessment and analysis** in the plan, and provide **corresponding map**.*	18–2.021	Statewide Philosophy and Framework – Surplus Lands, Page 8
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. *Please clearly indicate parcels on a map.*	18–2.021	Unit Management Plan – Optimum Boundary, Page 82
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18–2.021	Unit Management Plan – Water Quantity Page 11
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	Statewide Philosophy and Framework – Management Authority and Responsibility, Page 5; Unit Management Plan – Introduction, Page 2
10	Proximity of property to other significant State, local or federal land or water resources.	18–2.021	Unit Management Plan – Land Use Component, Page 50

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	Unit Management Plan– Introduction, Page 2
12	A description of past and existing uses, including any unauthorized uses of the property.	18–2.018 & 18–2.021	Unit Management Plan– Introduction, Page 2
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	Unit Management Plan– Secondary and Incompatible Uses, Page 2
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	Statewide Philosophy and Framework – Management Coordination, Page 8
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	Statewide Philosophy and Framework – DHR Compliance Review, Page 17
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	Statewide Philosophy and Framework – Management Coordination and Contract Services, Page 8

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	Unit Management Plan– Introduction, Page 2

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	Statewide Philosophy and Framework – Management Authority and Responsibility. Page 5 Unit Management Plan – Introduction. Page 3
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan	BOT requirement	Appendix - Comprehensive Plan Compliance Review
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	Statewide Philosophy and Framework – Conservation of Soil Resources, Page 9; Unit Management Plan - Planned Natural Resource Conditions, Page 57
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	N/A DRP, Lands are designated single use
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	Appendix- Timber Assessment
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	Unit Management Plan – Introduction - Secondary and Incompatible Uses, Page 2

*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
24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any	18–2.021	Statewide Philosophy and Framework – Stakeholder Engagement, Page 3
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	Appendix – Public and Inter–Agency Report
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. *Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.*	259.032	Appendix – Public and Inter-Agency Report

27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18–2.021	Appendix – Public and Inter–Agency Report
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. *Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan. Additonally, please include evidence the draft plan was provided to State Lands at least 30 days prior to the public meeting in order to allow the Department to post to it's website.*	253.034 & 259.032	Appendix – Public and Inter–Agency Report

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. *Include manager's replies to the team's findings and recommendations.*	259.036	Appendix – Land Management Review
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18–2.021	Appendix – Land Management Review
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	Appendix – Land Management Review

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. *Use brief descriptions and include USDA maps when available.*	18–2.021	Unit Management Plan – Soils, Page 9
33	Insert FNAI based natural community maps when available.	ARC consensus	Unit Management Plan – Natural Communities, Page 14
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	Unit Management Plan – Existing Natural Resource Conditions, Page 7
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	Unit Management Plan – Existing Natural Resource Conditions, Page 7
36	Location and description of known and reasonably identifiable renewable and non–renewable resources of the property regarding beaches and dunes.	18–2.021	Unit Management Plan – Existing Natural Resource Conditions, Page 7 Regional Overview – Geology, Page 2
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	Unit Management Plan – Existing Natural Resource Conditions – Soils, Page 9 Regional Overview – Geology, Page 2
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	Unit Management Plan – Existing Natural Resource Conditions, Page 23
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	Unit Management Plan – Existing Natural Resource Conditions, Imperiled Species Page 23
40	The identification or resources on the property that are listed in the Natural Areas Inventory. *Include letter from FNAI or consultant where appropriate.*	18–2.021	Unit Management Plan – Natural Communities, Page 14
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	Statewide Philosophy and Framework – Management Authority and Responsibility, Page 5
42	**Habitat Restoration and Improvement**		

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.	259.032 & 253.034	Unit Management Plan – Planned Natural Resource Conditions, Page 57; Unit Management Plan – Planned Cultural Resource Conditions, Page 71
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.		Resource Management Implementation Table
42–C.	The associated measurable objectives to achieve the goals.		Unit Management Plan – Natural Communities Objectives, Page 60
42–D.	The related activities that are to be performed to meet the land management objectives and their associated measures. *Include fire management plans – they can be in plan body or an appendix*		Unit Management Plan – Natural Communities Objectives, Page 60
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.	259.032 & 253.034	Resource Management Implementation Table
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage.*See footnote.*	253.034	Appendix – Timber Assessment
44	**Sustainable Forest Management, including implementation of prescribed fire management**		
44–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	18–2.021, 253.034 & 259.032	Statewide Philosophy and Framework – Prescribed Fire, Page 13; Appendix – Timber Assessment; Unit Management Plan – Natural Communities, Page 60
44–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan – Natural Communities, Page 60; Statewide Philosophy and Framework– Natural Communities, Page 11
44–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Natural Communities Objectives, Page 60
44–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Natural Communities Objectives, Page 60
44–E.	Budgets (see requirement for #42–E).		Resource Management Implementation Table
45	**Imperiled species, habitat maintenance, enhancement, restoration or population restoration**		
45–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	259.032 & 253.034	Unit Management Plan – Imperiled Species, Page 64
45–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan – Imperiled Species Page 64; Statewide Philosophy and Framework – Imperiled Species, Page 14
45–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Imperiled Species, Page 64
45–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Imperiled Species, Page 64
45–E.	Budgets (see requirement for #42–E).		Resource Management Implementation Table
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	Appendix – Gopher Tortoise Recipient Site Analysis

45–G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	Appendix – Gopher Tortoise Recipient Site Analysis
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. *See footnote.*	253.034	Statewide Philosophy and Framework– Invasive and Nuisance Species, Page 15
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	Statewide Philosophy and Framework – Arthropod Control Plan, Page 16; Appendix -- Arthropod Control Plans
48	**Exotic and invasive species maintenance and control**		
48–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	259.032 & 253.034	Unit Management Plan - Invasive Species. Page 67
48–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan - Invasive Species. Page 67; Statewide Philosophy and Framework – Invasive and Nuisance Species Page 15
48–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan - Invasive Species. Page 67
48–D.	Related activities (see requirement for #42–D).		Unit Management Plan - Invasive Species. Page 67
48–E.	Budgets (see requirement for #42–E).		Resource Management Implementation Table
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. *If yes, provide a list of the appropriate managing agencies that have been notified of the proposed plan.*	18–2.018 & 18–2.021	Unit Management Plan – Introduction, Page 2
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	Unit Management Plan – Natural Communities, Page 14; Unit Management Plan – Introduction, Page 2
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	Unit Management Plan – Natural Communities, Page 14 Regional Overview – Geology, Page 2
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. *See footnote.*	253.034	Unit Management Plan – Natural Communities, Page 14; Unit Management Plan – Introduction, Page 4; Unit Management Plan – Hydrology, Page 11
53	**Hydrological Preservation and Restoration**		
53–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	259.032 & 253.034	Unit Management Plan – Hydrology Objectives, Page 57
53–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan – Hydrology Objectives, Page 57
53–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Hydrology Objectives, Page 57
53–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Hydrology Objectives, Page 57
53–E.	Budgets (see requirement for #42–E).		Resource Management Implementation Table
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. *Include maps of all cultural resources except Native American sites, unless such sites are major points of interest that are open to public visitation.*	18–2.018, 18–2.021 & per DHR's request	Unit Management Plan— Cultural Resources, Page 40
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage	253.034	Unit Management Plan— Cultural Resources, Page 40
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	Unit Management Plan – Cultural Resources, Page 71; Statewide Philosophy and Framework – Cultural Resources – Page 16
57	**Cultural and Historical Resources**		
57–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	259.032 & 253.034	Unit Management Plan – Cultural Resources, Page 71
57–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan – Cultural Resources, Page 71
57–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Cultural Resources, Page 71
57–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Cultural Resources, Page 71; Statewide Philosophy and Framework– Cultural Resources, Page 16
57–E.	Budgets (see requirement for #42–E).		Resource Management Implementation Table

**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. *See footnote.*	253.034	Unit Management Plan – Existing Facilities and Infrastructure, Page 52
59	**Capital Facilities and Infrastructure**		
59–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).	259.032 & 253.034	Unit Management Plan – Conceptual Land Use Plan, Page 73
59–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).		Unit Management Plan – Conceptual Land Use Plan, Page 73; Statewide Philosophy and Framework – Facilities and Infrastructure, Page 18
59–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Conceptual Land Use Plan, Page 73
59–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Conceptual Land Use Plan, Page 73
59–E.	Budgets (see requirement for #42–E).		Capital Facilities and Interpretation Implementation Table

60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage	253.034	Unit Management Plan – Existing Facilities and Infrastructure, Page 52
61	**Public Access and Recreational Opportunities**		
61–A.	Management needs, problems and a desired outcome (see requirement for # 42–A).		Unit Management Plan – Conceptual Land Use Plan, Page 73

61–B.	Detailed description of both short and long–term management goals (see requirement for # 42–B).	259.032 & 253.034	Unit Management Plan – Conceptual Land Use Plan, Page 73; Statewide Philosophy and Framework – Facilities and Infrastructure, Page 18
61–C.	Measurable objectives (see requirement for #42–C).		Unit Management Plan – Conceptual Land Use Plan, Page 73
61–D.	Related activities (see requirement for #42–D).		Unit Management Plan – Conceptual Land Use Plan, Page 73
61–E.	Budgets (see requirement for #42–E).		Capital Facilities and Interpretation Implementation Table

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	Compliance Checklist
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	Unit Management Plan – 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	Unit Management Plan – Introduction, Page 4
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management	259.032	Unit Management Plan – Introduction, Page 7
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	Resource Management Implementation Table; Capital Facilities and Interpretation Implementation Table
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	RMC Implementation Table; Capital Facilities and Interpretation Implementation Table
68	A statement of gross income generated net income and expenses.	18–2.018	Unit Management Plan – Land Use Component, Page 50

*** = 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.

FAKAHATCHEE STRAND PRESERVE STATE PARK
Unit Management Plan

BIG CYPRESS REGION

TABLE OF CONTENTS

Fakahatchee Strand Preserve State Park

Unit Management Plan

Fakahatchee Strand Preserve State Park

Unit Name: Fakahatchee Strand Preserve State Park

Planning Region: Big Cypress

County: Collier

Lease/Management Agreement Number: 2840

Central Park Theme: Known as the "Amazon of North America," Fakahatchee Strand Preserve State Park is the largest subtropical strand swamp in the world, protecting a lush wilderness critical to the survival of rare and endangered plants and animals.

Total Acreage: 80,179.80

Natural Communities	Acres
Blackwater Stream	34
Dome Swamp	97
Estuarine Unconsolidated Substrate	284
Glades Marsh	1,063
Mesic Flatwoods	168
Marsh Lake	13
Marl Prairie	14,436
Mangrove Swamp	7,373
Prairie Hammock	3
Rockland Hammock	416
Salt Marsh	4,397
Shell Mound	7
Slough	2,850
Strand Swamp	42,436
Swamp Lake	51
Wet Flatwoods	5,858

Altered Land Cover	Acres
Abandoned Field/Pasture	102
Borrow Area	408
Canal/Ditch	25
Developed	140

Acquisition: Fakahatchee Strand Preserve State Park was initially acquired on June 14, 1974, under the Environmentally Endangered Lands program. Since 1974, the Trustees have acquired several individual parcels and incorporated them into the park.

Planned Natural Resource Conditions

Hydrology

- Collect baseline data that characterizes the Class III Outstanding Florida Waters of the park.
- Continue to monitor surface and ground water levels at culvert crossings and well points at established locations throughout the preserve.
- Remove former agricultural berms that impede sheetflow within Dan House Prairie.

Natural Communities

- Maintain ± 10,000 acres within the optimum prescribed burn interval within the planning period.
- Improve aquatic habitat and create wading bird rookery sites within the borrow lakes.
- Reduce the density of cabbage palms on ± 500 acres of wet flatwoods, marl prairie and small strand swamps.

Imperiled Species

- Update baseline imperiled species occurrence inventory lists for flora and fauna.
- Continue existing monitoring protocols for 12 selected animal species, including American alligator, Big Cypress fox squirrel and Everglades mink.
- Evaluate the impacts of recreational use on the East River wading bird roost/nesting rookery and take corrective measures for any negative impacts.
- Continue to improve habitat conditions for red-cockaded woodpecker and investigate opportunities for their reintroduction to the park.
- Monitor and document 86 selected imperiled plan species, including ghost orchid, giant airplant and cowhorn orchid.
- Monitor the status of imperiled plant species occurring along the overgrown trams.

Invasive and Nuisance Species

- Create a long-term invasive plant management plan.
- Monitor ± 1,989 acres already in maintenance condition.
- Reduce or maintain ± 77,670 acres not in maintenance condition.
- Remove Burmese pythons by utilizing road cruising surveys and opportunistic observations.

Planned Cultural Resource Conditions

- Assess and evaluate 78 recorded cultural resources.
- Compile reliable documentation for all recorded historic and archaeological resources, ensuring that all known sites are recorded and/or updated in the Florida Master Site File.
- Continue to maintain the Scope of Collections Statement for the park.
- Improve condition of three cultural sites.

Planned Land Use and Infrastructural Conditions

Conceptual Land Use

Big Cypress Bend Boardwalk

- Replace the existing strand swamp boardwalk within its historic alignment footprint.
- Connect segments of the Big Cypress Bend Boardwalk.
- Develop and implement an interpretive plan for the boardwalk connection.
- Coordinate with tribal representatives to explore interest in a connection to the Miccosukee village.

East River Paddle Launch

- Continue routine monitoring and evaluation of visitor use impacts and implement adaptive visitor management.
- Maintain gate, access road, parking and interpretive infrastructure.
- Coordinate with the Florida Department of Transportation (FDOT) for potential utilization of the wayside rest area to the west of East River Paddling Launch.

Southeast Entrance and Day Use Area

- Improve entranceway aesthetics and sense of arrival.
    - Alternative A – Improve organization, functionality and reception at the current park entrance.
        - Improve directional signage along the current entrance road.
        - Provide wayfinding and interpretive elements at the entrance that clearly identifies the end of Janes Scenic Drive as the primary long-distance trailhead.
        - Install a centralized entry fee station.
        - Repurpose the small visitor center building for operations.
        - Add five volunteer sites.
    - Alternative B—Develop an alternative access to the interior of the preserve.
        - Delineate the route of a new entrance road from SR 29.
        - Coordinate potential access with SFWMD.

Jones Grade Trailhead and Lakes Use Area

- Discontinue public access at Jones Grade in favor of enhanced sense of arrival and introductory interpretation at the main trailhead located within the heart of the preserve.
- Improve habitat conditions with the former quarry lakes.
- Restore upland natural communities surrounding the former quarry lakes.

Janes Scenic Drive and Main Trailhead

- Manage vegetation along select segments of Janes Scenic Drive.
- Maintain and, where appropriate, improve the system of culverts.
- Emphasize main trailhead as the premier point of introductory interpretation and embarkment into the heart of the preserve.

Trail System

- Conduct a comprehensive evaluation of all existing park trails.
- Identify and modify trail alignments that pose significant impacts to sensitive natural areas.

- Improve trail conditions and wayfinding for all vetted trails.

Parkwide Infrastructure and Hydrological Compatibility

- Improve and maintain the system of culverts to sustain the natural movement of water across the park.

Optimum Boundary

Ongoing acquisition of approximately 900 inholdings is a high priority.

The southern portion of the Green Heart of the Everglades tract, owned and managed by SFWMD, is a possible location for a new entrance to the preserve that would bypass Copeland and operational facilities of the park. If not acquired by lease, the entrance concept would require interagency coordination and consideration of an access easement traversing east-west across the SFWMD tract.

FAKAHATCHEE STRAND PRESERVE STATE PARK
Unit Foundations

BIG CYPRESS REGION

INTRODUCTION

LOCATION AND ACQUISITION HISTORY

Fakahatchee Strand Preserve State Park is located in south central Collier County, about 35 miles southeast of Naples and 80 miles west of Miami. Access to the preserve is from U.S. Highway 41 (Tamiami Trail) on the south side and from State Road 29 on the east. U.S. Highway 84 (Alligator Alley), which runs adjacent to the northern preserve boundary is a toll-access segment of Interstate 75 (I-75). State Road 29 parallels the eastern boundary and provides access to the preserve via I-75 and from U.S. Highway 41. The Big Cypress Region map also reflects significant land and water resources existing near the preserve.

Fakahatchee Strand Preserve State Park was initially acquired on June 14, 1974, under the Environmentally Endangered Lands program. Since 1974, the Board of Trustees of the Internal Improvement Trust Fund (Trustees) have acquired several individual parcels and incorporated them into the preserve. Acquisitions have been funded through the Environmentally Endangered Lands, Land Acquisition Trust Fund, State of Conservation, Conservation and Recreational Lands and Preservation 2000 programs. Currently, the preserve comprises 80,179.80 acres. The Trustees hold fee simple title to the preserve, and on June 2, 1975, the Trustees leased (Lease No. 2840) the property to the Department of Environmental Protection's (DEP) Division of Recreation and Parks (DRP) under a 99-year lease. The current lease will expire on June 2, 2074.

Fakahatchee Strand Preserve State Park is designated single-use to provide public outdoor recreation and conservation. There are no legislative or executive directives that constrain the use of this property (see appendix). A legal description of the preserve property can be made available upon request to DEP.

SECONDARY AND INCOMPATIBLE USES

In accordance with section 253.034(5), Florida Statutes (F.S.), the potential of the preserve to accommodate secondary management purposes was analyzed. These secondary purposes were considered within the context of DRP's statutory responsibilities and resource values. This analysis considered the preserve's natural and cultural resources, management needs, aesthetic values, visitation and visitor experiences. It was determined that no secondary purposes could be accommodated in a manner that would not interfere with the primary purpose of resource-based outdoor recreation and conservation.

DRP has determined that uses such as water resource development projects, water supply projects, stormwater management projects, linear facilities and sustainable agriculture and forestry (other than those management activities specifically identified in this plan) would not be consistent with the management purposes of the preserve.

In accordance with section 253.034(5), F.S., the potential for generating revenue to enhance management was also analyzed. Visitor fees and charges are the principal source of revenue generated by the preserve. It was determined that multiple-use management activities would not be appropriate as a means of generating revenues for land management. Instead, techniques such as entrance fees, concessions and similar measures will be employed on a case-by-case basis as a means of supplementing preserve management funding. Generating revenue from consumptive uses or from

activities that are not expressly related to resource management and conservation is not under consideration.

PURPOSE AND SIGNIFICANCE OF THE PRESERVE

Park Purpose

The purpose of Fakahatchee Strand Preserve State Park is to preserve the diverse ecosystem of Fakahatchee Strand and its surrounding matrix of southwest Florida natural communities which together provide essential habitats for many endemic species and help protect the estuarine resources of the Ten Thousand Islands coastline.

Park Significance

- Fakahatchee Strand is the largest strand swamp in the world and a unique geological feature of the larger Big Cypress Swamp ecosystem.

- The preserve contains the largest diversity of native orchid, bromeliad and Peperomia species in the United States and 12 individual plant species historically found nowhere else in the country.

- The preserve supports the largest population of native royal palms in the United States and a majority portion of the world's only known bald cypress and royal palm forest.

- The preserve provides crucial habitat for imperiled species including the Florida panther, American crocodile and the Everglades mink.

- The preserve protects a portion of one of the largest undisturbed mangrove estuaries in North America. This estuary provides crucial habitat for numerous species of wading birds, as well as a vital nursery area for fish and shellfish.

- From as early as 1000 B.C.E., Native Americans and later Anglo-American settlers, known as "Gladesmen," forged a unique relationship with the historic cypress forests, expansive prairies and rich coastal estuaries of what is now known as Fakahatchee Strand Preserve State Park.

- The preserve provides visitors with the rare opportunity to experience a portion of Florida's remaining subtropical wilderness through various recreational pursuits such as hiking, paddling, fishing and nature study.

Central Park Theme

Known as the "Amazon of North America," Fakahatchee Strand Preserve State Park is the largest subtropical strand swamp in the world, protecting a lush wilderness critical to the survival of rare and endangered plants and animals.

Internal Classification

Fakahatchee Strand Preserve State Park is classified as a State Preserve in the DRP unit classification system. Preservation and enhancement of natural conditions is the priority. Resource considerations are given priority over user considerations and development is restricted to the minimum necessary for ensuring its protection and maintenance, limited access, user safety and convenience and appropriate interpretation. Permitted uses are primarily of a passive nature, related to the aesthetic, interpretive/educational and recreational use of the preserve, although other compatible uses may be permitted within preservation-oriented limitations. Program emphasis is placed on interpretation of the natural and cultural attributes of the preserve.

OTHER DESIGNATIONS

The unit is within the Big Cypress Area—an Area of Critical State Concern as defined in section 380.05, F.S. The preserve is a component of the Florida Greenways and Trails System, administered by the DEP's Office of Greenways and Trails.

All waters within the preserve have been designated as Outstanding Florida Waters, pursuant to Chapter 62-302, Florida Administrative Code. Surface waters in this preserve are also classified as Class II (shellfish propagation and harvesting area) or Class III waters (suitable for fish consumption and recreation) by DEP. The preserve is adjacent to the Cape Romano – Ten Thousand Islands Aquatic Preserve as designated under the Florida Aquatic Preserve Act of 1975 (section 258.35, F.S.).

PARK ACCOMPLISHMENTS

- Partnered with Ducks Unlimited and the Collier Community Foundation to leverage over $2.1 million in public funds to restore sheet flow across over 1,000 acres of Dan House Prairie, ultimately resulting in the removal of over 7 miles of berms, improving hydrology under Well Grade Road with culvert upgrades and planting 16,000 native plants funded by a $30,000 grant.
- Applied prescribed fire to over 33,000 acres over the last five years.
- Continue to build a strong bond with the Florida Forest Service, improving the prescribed fire program and wildfire response.
- Completed the Big Cypress Bend Boardwalk project, including connecting the glades marsh section to the original strand swamp boardwalk.
- Constructed six new instructional kiosks that are placed throughout the preserve.
- Friends of Fakahatchee (Citizen Support Organization) secured grant funding to build an authentic chickee hut for interpretive use. The structure was built in 2021 by members of the Seminole Tribe using local resources and traditional methods. In addition, the Friends funded the construction of a chickee hut on Janes Scenic Drive at gate 12, the construction of a 72-by-84-foot pole barn next to the park office in 2022 and the reconstruction of the visitor center located on Coastline Drive in 2023.
- In FY 2024-25, 2,737 acres were treated for invasive plants, contributing to a total of 4,146 acres treated over the past five years.
- Continued work collaborating with Naples Botanical Garden and Marie Selby Botanical Gardens to protect varied species of air plants against the Mexican bromeliad weevil.
- Worked with the Atlanta Botanical Garden in the preservation and restoration of the Cowhorn (*Cyrtopodium punctatum*) and Rattail (*Bulbophyllum pachyrachis*) orchids.
- Placed traffic counters along Janes Scenic Drive to better count the public access and usage of the preserve.

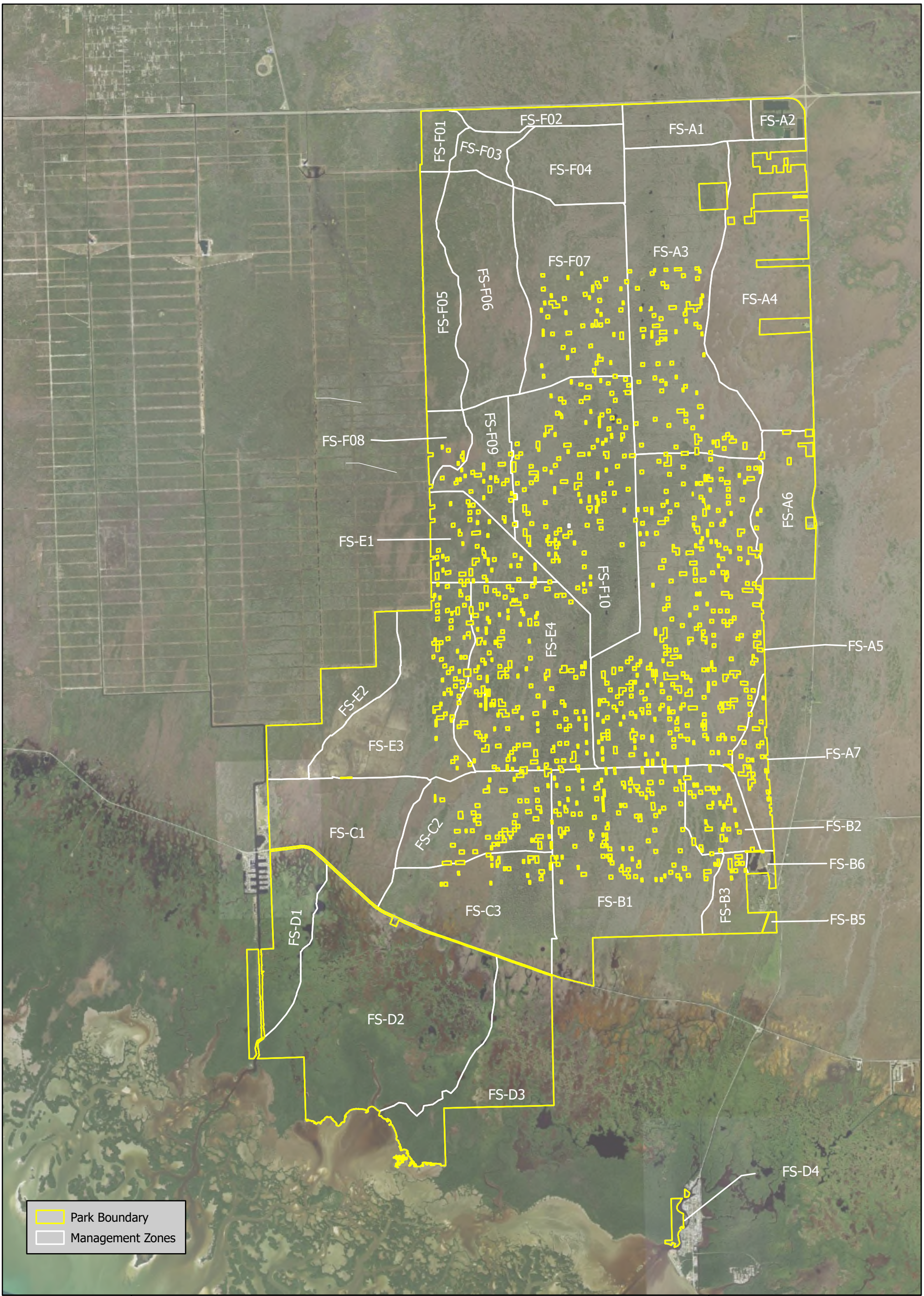
- Coordinated with the U.S. Department of Transportation to complete turn lanes into the parking area for the Glades Marsh - Big Cypress Bend boardwalk and visitor center.

FAKAHATCHEE STRAND PRESERVE STATE PARK
Existing Natural Resources

BIG CYPRESS REGION

RESOURCE MANAGEMENT COMPONENT

Fakahatchee Strand Preserve State Park Management Zones		
Management Zone	**Acreage**	**Managed with Prescribed Fire**
FS-A1	1,158.14	Yes
FS-A2	444.28	Yes
FS-A3	5,926.00	Yes
FS-A4	4,504.08	Yes
FS-A5	8,070.21	Yes
FS-A6	1,663.80	Yes
FS-A7	728.17	Yes
FS-B1	5,252.37	Yes
FS-B2	972.96	Yes
FS-B3	655.26	Yes
FS-B4	147.54	Yes
FS-B5	46.23	Yes
FS-C1	2,665.31	Yes
FS-C2	2,351.29	Yes
FS-C3	2,930.51	Yes
FS-D1	1,765.34	Yes
FS-D2	7,538.12	Yes
FS-D3	2,786.14	Yes
FS-E1	1,432.15	Yes
FS-E2	1,550.51	Yes
FS-E3	3,543.80	Yes
FS-E4	4,442.22	Yes
FS-F1	463.17	Yes
FS-F2	689.37	Yes
FS-F3	548.15	Yes
FS-F4	1,725.80	Yes
FS-F5	1,504.43	Yes
FS-F6	3,198.11	Yes
FS-F7	3,906.20	Yes
FS-F8	485.63	Yes
FS-F9	1,173.86	Yes
FS-F10	5,387.94	Yes



FAKAHATCHEE STRAND PRESERVE STATE PARK
Management Zones

N

0 1.5 3 Miles

This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

TOPOGRAPHY

Fakahatchee Strand Preserve State Park lies within the Big Cypress Province of the Everglades District, a regional physiographic subdivision of south Florida. The Big Cypress Province includes the Big Cypress Swamp, Corkscrew Swamp Sanctuary and other ridge-and-slough landscapes extending from the Gulf coast north of Naples eastward to the marshlands of the Everglades Province. This province is slightly higher in elevation than the Everglades Province and is characterized by broad, low-relief wetlands and forested swamps. Surface water flow in the western portion of the province generally moves from north to south and southwest toward the Gulf, while in the eastern portion flow trends from north to south and southeast toward the Everglades. The province remains largely undeveloped, with significant areas preserved and managed by federal, tribal and state agencies as well as environmental organizations.

Within this regional setting, Fakahatchee Strand Preserve State Park is characterized by extremely subtle relief and a gently sloping landscape. Elevations within the preserve generally range from approximately 3 to 10 feet (0.9–3 meters) above mean sea level. Minor variations in elevation, often less than a foot, strongly influence hydrologic patterns and the distribution of plant communities.

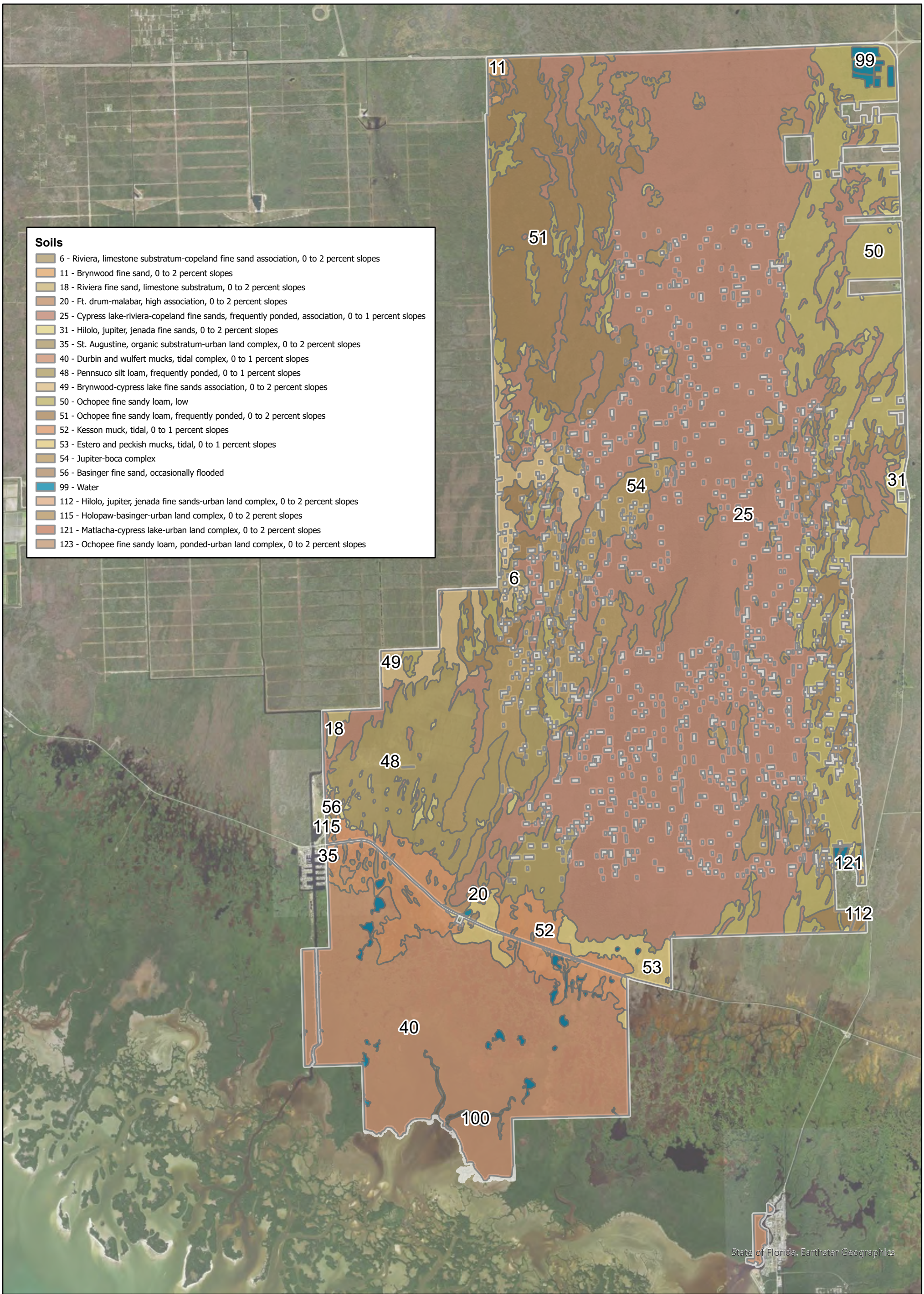
The dominant topographic feature of the preserve is Fakahatchee Strand, a broad, shallow drainage corridor that trends generally north to south and conveys seasonal sheet flow through the preserve toward coastal estuaries. The strand functions as a natural drainageway within the Big Cypress watershed, collecting water from adjacent uplands and distributing it slowly through forested wetlands. Slightly higher mesic flatwoods and marl prairie ridges flank the strand and form subtle divides between adjacent drainage systems.

Topographic variation within the strand occurs primarily at the microtopographic scale and includes a mosaic of sloughs, cypress domes, solution depressions and marl flats. Cypress domes occur where localized depressions in the limestone substrate hold water for extended periods, typically supporting dense stands of bald cypress and pond cypress. Sloughs form broad, gently incised areas where hydroperiods are longer and water depths slightly greater than in surrounding wetlands. Although these features are often only subtly expressed on the landscape, they play an important role in directing water movement and supporting diverse wetland habitats.

The preserve's topography is strongly influenced by underlying geology. Much of the area is underlain by porous limestone associated with the Tamiami Formation, which has undergone solution weathering over time. This process has produced shallow depressions and irregular surface features that contribute to the preserve's characteristic microrelief. Organic peat accumulation within the strand further modifies the surface that influences water retention and vegetation patterns.

SOILS

Over most of Collier County, a thin blanket of sand, sandy marl, clay and fine shell of Pamlico Sea origin covers the limestone (see Soils Map). These sands and their accumulated organic material form the substratum for the biological systems of the county and, prior to the hydrological disruptions caused by extensive canal building, were in direct or close contact with the water table. It is the organic material in this upper layer that yields the acids responsible for solution of the underlying limestone. The appendix contains detailed soil descriptions for this unit. Currently, there are no naturally occurring soil



FAKAHATCHEE STRAND PRESERVE STATE PARK
Soils

N

Miles

0 1.5 3

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conservation or erosion issues at this preserve; however, erosion has occurred where off-road vehicles (ORV) are driven outside of designated access routes to private inholdings.

HYDROLOGY

Water Quantity

Groundwater in the extensive, shallow, non-artesian surficial aquifer of southwest Florida is recharged seasonally by rainfall. Groundwater in the preserve has been most immediately affected by two north-south canals that were cut into the porous limestone, near the preserve on either side of the boundary. During most of the year, surface water is lower in these canals and groundwater drains toward them from the strand, creating a negative gradient outward from the canal. This drawdown extends for over 2 miles during the dry season, from the large Prairie Canal, while it only extends for approximately 0.5 to 1 mile from the smaller State Road 29 canal (Swayze and McPherson 1977). In the 1970s, this drawdown effect was compounded by severe drought. Subsequently, wildfire burned into Fakahatchee Strand.

Since then, water control structures have been installed in the canals to attenuate the discharge of water in the wet season. These structures have been beneficial, but data collected from groundwater wells in the preserve indicate drawdown effects still extend 1 to 1.5 miles (during the wet season) and 2 to 3 miles (during the dry season) into the preserve from the canal along the eastern boundary of South Golden Gate Estates. Hydrological data collection continues to help researchers to assess impacts on the Fakahatchee Strand ecosystem, which will guide the development of strategies for addressing these impacts. This undertaking will require collaboration with hydrologists, possibly from other agencies, to complete. The regulated use of water control structures in canals, including the installation of plugs, is essential to the proper management of hydrology in the preserve.

The first phase of the Picayune Strand Restoration Project (PSRP) began in 2004 and included plugging sections of Prairie Canal along the preserve's western boundary. Completed in 2006, the negative gradient has been reduced in the dry season and almost eliminated in the wet season as determined by monthly data from two transects of groundwater wells perpendicular to the north-south canals. Since the drawdown effect of Prairie Canal was documented to reach up to 3 miles eastward, the plugging of 7 miles of the north-south portion of Prairie Canal has resulted in the hydrologic improvement of 14 square miles of wetland natural communities (i.e., marl prairie, wet flatwoods and strand swamp) within Fakahatchee Strand Preserve State Park. Under the current filled and/or plugged condition, the former Prairie Canal still has some influence on groundwater levels as shown through the long-term monitoring of groundwater wells. The completion of the second phase of the PSRP (filling Merritt Canal) was completed in 2015 and is expected to remove the wet season drawdown effect, and the filling of the East-West Stair-Step Canal connecting Prairie and Merritt Canals was completed in 2019 and is expected to remove the dry season drawdown effect. As of 2026, preserve staff are contributing hydrological data every month to staff tasked to the PSRP. This data is currently being analyzed to determine success post-phase II completion of the PSRP.

The surficial aquifer within the preserve is currently tapped as the source of drinking water for Everglades City, Copeland, Lee Cypress, Chokoloskee and Plantation. Three wells to the west of Janes Scenic Drive were abandoned because of chronic water quality issues related to surface water contamination because of the proximity of the Harmon Brothers borrow pits. A replacement wellfield was developed for these communities in 2013. It is located to the east of Janes Scenic Drive, in the

southeastern portion of the preserve in management zone FS-A7P. Groundwater monitoring well #22 is located 1.5 miles northwest of the three abandoned wells and a staff gauge in the borrow pit at the Copeland Fire Tower has been recorded daily or weekly since 1993.

Another well field is currently the source of drinking water for the Port of the Islands development along the southwestern boundary. These three wells are located along Well Grade Road in central Dan House Prairie at 1 to 1.5 mile east of the Faka Union Canal (Township 52, Range 28, Section 2 NW ¼). The South Florida Water Management District (SFWMD) issues water use permits for both wellfields (SFWMD, annual water consumption data). Groundwater monitoring well #13 and a staff gauge are located about 0.5 miles east of the easternmost well on Old Pump Road and a monthly record of water level data has been collected since December 1987. For future monitoring, gauges could be placed closer to these two wellfields to monitor weekly/monthly water levels to determine if the wellfields are creating significant drawdown gradients from the preserve. However, major hydrologic improvements are expected in the area below the Stair-Step Canal now that the upstream East-West Stair-Step Canal is filled.

Though described separately, surface and groundwater levels at this preserve are closely interrelated because they are essentially the same water mass that is above ground in the wet season and normally recedes below ground at some point during most dry seasons.

Surface water in the preserve is designated as Class III waters by the DEP as stipulated under Chapter 62-302, Florida Administrative Code. They are also designated Outstanding Florida Waters, meaning that no actions can be taken that will degrade the existing quality. Water conservation issues will be addressed later in the Management Needs section.

Drainage in the preserve varies seasonally. Overland flows are normally greatest between June and October, the months of heavy rainfall, and slowly subside between October and May, sometimes ceasing altogether and leaving water standing only in surface depressions. In very dry years, all surface water is lost to evapotranspiration or absorbed by the porous substrate. During the wettest months the water moves southward as sheet flow, perhaps as slowly as 0.03 feet per second (0.5 miles per day) on its way to the estuaries south of the preserve.

The preserve lies in the Okaloacoochee Slough drainage basin. The principal drainage features are Okaloacoochee Slough, Fakahatchee Strand, Barron River Canal (along State Road 29), Turner River Canal and East Hinson Marsh. The northernmost feature is the elongated, seasonally flooded Okaloacoochee Slough. This depression extends southward, varying in width from less than a half mile to over 4 miles.

Just north of the Collier County line, in the southwestern corner of Hendry County, the Okaloacoochee Slough turns southwesterly towards State Road 29. The Barron River Canal, the borrow canal for State Road 29, intercepts this flow. The U.S. Geological Survey reports that the Barron River Canal once drained as much as 150 cubic feet per second; since then, however, Collier County has activated water control structures in the canal, which redirected some water into Fakahatchee Strand. In 1989, the SFWMD and Collier County installed bridges at State Road 29 where the Okaloacoochee Slough historically flowed into the northern portion of Fakahatchee Strand, now within the Florida Panther National Wildlife Refuge. In 1997, the SFWMD installed three culverts under State Road 29 near Deep Lake to convey water southwesterly from the Barron River Canal into the Fakahatchee watershed through historic hydrologic connections. Also, some water from Okaloacoochee Slough, east of State Road 29, drains southeasterly into East Hinson Marsh and into the Turner River Canal, the borrow canal for State Road 839A.

Fakahatchee Strand is the largest wetland extension of Okaloacoochee Slough, stretching south about 20 miles to the estuaries of the Gulf. Some of the surface drainage is intercepted by the I-75 borrow canal. In 1989, the conversion of State Road 84 into I-75 was completed. A series of rock pits were excavated at the intersection of State Road 29 and I-75 for fill material on this project. More culverts were installed under the roadway to convey a larger volume of water into Fakahatchee Strand south of I-75 where it flows under Janes Scenic Drive and eventually under the Tamiami Trail into the estuarine natural communities to the south.

During the 1960s, a series of north-south canals were excavated just west of Fakahatchee Strand, part of a land development called South Golden Gate Estates. During 2005, three new culverts were installed under the Tamiami Trail between State Road 29 and the Faka Union Canal in preparation for increased sheet flow resulting from the PSRP. The South Golden Gate Estates was purchased by the state of Florida and is now managed by the Florida Forest Service as Picayune Strand State Forest. Phase 1 of the PSRP was completed in June 2007 and involved the plugging of 7 miles of Prairie Canal along Fakahatchee's western boundary with Picayune Strand State Forest.

A series of small lakes are aligned north-south in the central portion of the strand swamp. Logging trams occupy the central portion of Fakahatchee Strand and reduce the rate of water flow. This moderation of the southward flow through the sloughs of Fakahatchee Strand may have fortuitously compensated for the increased drawdown effect of the South Golden Gate Estates canal system, located only 1 to 2.5 miles west of the strand's edge. The logging trams were created by digging borrow canals on both sides to create a narrow-gauge railroad bed (tram) about 15 feet wide and about 2 to 3 feet above the strand elevation. These trams are now functioning as linear hammocks, supporting tree species found on low hammocks within the strand including laurel oak (*Quercus laurifolia*), cabbage palm (*Sabal palmetto*), swamp bay (*Persea palustris*), royal palm, myrsine (*Myrsine cubana*), marlberry (*Ardisia escallonioides*), sweet bay (*Magnolia virginica*), gumbo limbo (*Bursera simaruba*), Simpson's stopper (*Myrcianthes fragrans*), willow bustic (*Sideroxylon salicifolium*) and satinleaf (*Chrysophyllum oliviforme*). Most of the logging trams are approximately 1 mile long and run east and west from the central north-south oriented tram (East Main Tram). The water collects in the north ditch of these trams and continues flowing to the nearest "washout" or break in the tram where a bridge was built for the train. The bridged washouts in the trams occur about every 1,000 feet. The purpose of these bridged washouts was to prevent the trams from being washed-out during high-water events during the logging period between 1944 and 1954. Due to their east-west orientation, these trams may have helped maintain water levels of the interior sloughs somewhat closer to their historic levels.

A borrow canal along an old railroad grade drains the southeastern-most corner of the preserve along with adjacent private land. Restoration of this feature at Bridge 75 along U.S. Highway 41 should be considered. The water in the canal is tidal and carries saltwater farther inland than would occur under natural conditions, allowing saltwater intrusion to shift the natural community from marl prairie to salt marsh. At its upper reaches, the canal may also be reducing the hydroperiod of approximately 400 acres of marl prairie, favoring a transition to salt marsh and impacting the natural hydrological regime. Some measures of control, such as earthen plugs in the canal or a series of weirs, should be investigated to regulate the amount of freshwater discharge and reduce the influence of saltwater on adjacent natural communities.

The Barron River Canal extends south from Immokalee for about 40 miles to Everglades City. Water flow is regulated by nine stop-log controls between Alligator Alley and U.S. Highway 41. The U.S. Geological Survey maintains a water stage recorder 0.7 miles upstream from Copeland between two of these control structures.

Water Quality

Water quality monitoring is conducted within a natural swamp lake at the northern end of Fakahatchee Strand by the Collier County Pollution Control Department. Data is collected four times per year, and the site is utilized as a reference site. The data includes water temperature, dissolved oxygen, pH, conductivity, clarity, chlorophyll a and b, as well as nitrates. Expanding the water quality monitoring program is proposed in the Hydrological Management section.

Hydrological Alterations

The Barron River Canal continues to divert water from Fakahatchee Strand. If State Road 29 is ever expanded or reworked, improved confluence under State Road 29 should be included for hydrological restoration.

NATURAL COMMUNITIES

The preserve contains 16 distinct natural communities as well as altered landcover and developed areas (see Natural Communities Map). A list of known plants and animals occurring in the preserve is included in the Southwest District Species Matrix appendix.

Mesic Flatwoods

In the preserve, mesic flatwoods are distinguished from wet flatwoods by the presence of uninterrupted patches of saw palmetto. The mesic flatwoods are closely associated with and usually grade into wet flatwoods, the difference being determined by minor topographic change, with mesic flatwoods on slightly more elevated sites. The mesic flatwoods in the preserve are approximately 168 acres in total and consists of numerous small, isolated pockets within a complex of wet flatwoods and marl prairie. Saw palmetto fruit in the mesic flatwoods is an important food source for the regions Florida black bear (*Ursus americanus floridanus*). Mesic flatwoods are generally in good condition and are burned with the adjacent marl prairie and wet flatwoods that have similar optimal fire return intervals. The most encountered invasive plant species in the mesic flatwoods is Brazilian pepper (*Schinus terebinthifolius*), but frequent fires help keep them from forming a dense monoculture.

Preserve staff should continue frequent growing season prescribed burning to maintain biological diversity and reduce hardwood encroachment. In addition, invasive plant infestations, especially Brazilian pepper and cogon grass, should be treated on a regular basis.

Prairie Mesic Hammock

There are numerous prairie mesic hammocks scattered over marl prairies. Many are very small and round, when seen from above, accounting for less than 1 acre each, and approximately 3 acres in total. Others are elongated in shape. Such communities were designated as low hammocks by Harper (1921) and Davis (1943). The latter author cited a specific location (by township, range and section) for examples of a low hammock within the boundaries of the present-day preserve. These communities are probably in near original condition, except for a few invading Brazilian pepper plants.

BA
WF
STS
SWLK
DS
MP
SLO
RH
DV
MF
CD
SAM
GM
PH
AFP
MLK
BST
MS
SHM
EUS

Natural Communities (in Acres)

- AFP - Abandoned Field/Abandoned Pasture 102.21
- BA - Borrow Area 408.06
- BST - Blackwater Stream 33.7
- CD - Canal/Ditch 25.41
- DS - Dome Swamp 96.74
- DV - Developed 139.93
- EUS - Estuarine Unconsolidated Substrate 284.22
- GM - Glades Marsh 1,062.99
- MF - Mesic Flatwoods 167.73
- MLK - Marsh Lake 12.81
- MP - Marl Prairie 14,436.12
- MS - Mangrove Swamp 7,372.88
- PH - Prairie Hammock* 2.86
- RH - Rockland Hammock 415.76
- SAM - Salt Marsh 4,396.81
- SHM - Shell Mound 6.63
- SLO - Slough 2,850.17
- STS - Strand Swamp 42,435.95
- SWLK - Swamp Lake 50.64
- WF - Wet Flatwoods 5,857.89

FAKAHATCHEE STRAND PRESERVE STATE PARK
Natural Communities - Existing Conditions

N

0 1.5 3 Miles

Preserve staff should burn this community as often as the adjacent marl prairie community is burned. Invasive plants, especially Brazilian pepper, need to be monitored and treated regularly, as it is spread by birds, raccoons (*Procyon lotor*) and Florida black bear.

Rockland Hammock

Rockland hammocks typically have larger more mature trees in the interior, while the margins are dense with smaller shrubs, trees and vines. Typical canopy and understory species include gumbo limbo, pigeon plum (*Coccoloba diversifolia*), false mastic (*Sideroxylon foetidissimum*), strangler fig (*Ficus aurea*), several species of stoppers, marlberry, satinleaf and catclaw blackbead (*Pithecellobium unguis-cati*). Vines and herbaceous vegetation are less common and include greenbrier (Smilax spp.). Epiphytes, including orchids, ferns and bromeliads can be found on larger trees.

There are islands of rockland hammock embedded within the strand. Most are elongated north to south, similar to the orientation of tree islands in sawgrass marsh located nearby at Everglades National Park. In both cases, orientation is related to the southerly flow of water. The dominant plants include tropical shrubs and hardwood trees. Typical plants may include royal palm, laurel oak, occasionally live oak, Simpson's stopper, white stopper (*Eugenia axillaris*), marlberry, myrsine, gumbo limbo, willow bustic, swamp bay, cabbage palm, tallowwood (*Ximenia americana*) and occasionally false mastic, pigeon plum and satinleaf. Epiphytes are common. A notable difference from the tree island hammocks of the Everglades is the usual presence of royal palms in the Fakahatchee Strand Preserve hammocks. During times of extreme high water, the water surface may be slightly above the ground in these hammocks.

Some of the tram roads of the strand have succeeded into linear, artificial tropical hardwood hammocks since their construction. Species composition is like that of the natural hammocks described above. The richest species composition seems to be correlated with proximity to the deeper water, which may influence moderating extremes in air temperature. About one third of the 5,000 to 7,000 royal palms in the preserve are found on the tram roads. The only occurrences of Chiggery grape (*Heliotropium verdcourtii*) ever noted in the preserve are on tram roads. Two woody tropical species, Gulf graytwig (*Schoepfia schreberi*) and devil's claws (*Pisonia aculeata*) occur on trams as well as in rockland hammock.

Restoration and maintenance of historic hydrological conditions will help to protect this natural community from excessive drought and muck-consuming fires. Wetter conditions would also help preclude invasive species.

Shell Mound

The most notable shell mound site is Daniels' Point at the southern extremity of the preserve, between the mouths of the Fakahatchee River and East River. It is named after one of the pioneering fishermen families who lived here around the turn of the 20th century. It is also listed as one of the cultural sites of the preserve. Prior to clearing by settlers, the vegetation was tropical hardwood in the interior, such as gumbo limbo and Jamaican dogwood (*Piscidia piscipula*). Halophytic trees including buttonwood grow along the shore. Specimens of these trees remain, but today, introduced species like white leadtree (*Leucaena leucocephala*), latherleaf (*Colubrina asiatica*), seaside mahoe *(Thespesia populnea*) and the sprawling Madagascar rubber vine (*Cryptostegia madagascarensis*) are conspicuous components of the flora.

The condition of the shell mound is fair due to the presence of invasive plant species and historic cattle dipping vats.

Soil disturbance at Daniels' Point can promote invasion by invasive species such as Brazilian pepper and Australian pine. A thorough invasive treatment plan needs to be followed to prevent further infestation. Larger hardwoods should be monitored to determine the threat of toppling, which could cause damage and loss of the archaeological resources. Erosion should continue to be monitored to ensure the survivorship of this unique habitat type.

Wet Flatwoods

This community is more prevalent in northern portions of the preserve and is usually intermixed with marl prairie, dome swamps, strand swamps and other types. Grasses and sedges, which form fine fuels when dry, are more prevalent than in mesic flatwoods. Examples include gulf hairawn muhly (*Muhlenbergia capillaris* var. *filipes*), sand cordgrass (*Spartina bakeri*), various broomsedges or bluestems and several species of beaksedge (*Rhynchospora* spp.)

The wet flatwoods are generally in good condition, except for the presence of ORV trails. Soil compaction and plant species alteration, including infestations of widely scattered Brazilian pepper, as well as abandoned hunting camps, are the results of these undesignated trails. The wet flatwoods along the western boundary of the preserve have a higher density of cabbage palms than desired. These palms became established after the hydrology change resulting from the construction of Prairie Canal. Additional information and actions to reduce the cabbage palm density can be found in the Natural Communities Improvements section.

A prescribed fire return interval of two to four years and the restoration and maintenance of historic hydrologic conditions will help to protect this natural community from hardwood encroachment and excessive duff-consuming fires. Wetter conditions would also help preclude invasive species. The density of cabbage palms in the wet flatwoods adds to the complexity of prescribed fire. Selective removal, particularly on the edge of burn units, should be considered. Another significant impact to this natural community has been unauthorized ORV use. DRP should address unauthorized access points and emphasize enforcement of preserve rules to mitigate these impacts. A complicating issue is the large number of private inholdings, many of which are located in wet flatwoods. Requiring landowners to access private property by designated trails should remain a priority.

Dome Swamp

Dome swamps are scattered over the marl prairies bordering Fakahatchee Strand. The domes are presumed to be in their original condition, except where the presence of shrubs and smaller hardwood trees may signify that fire has been less frequent in recent decades. In addition, a few invasive plant species are scattered around the drier periphery of the domes, most commonly Brazilian pepper. This community should have an opportunity to burn as often as adjacent marl prairies are burned. Preserve staff should continue to control invasive plants, especially Brazilian pepper.

Glades Marsh

Glades marsh transitions into marl prairie within the freshwater zone downstream of Fakahatchee Strand, and, together with sloughs, form a mosaic of wetland communities. In the increasing saline environment towards the coast, glades marsh and marl prairie grade into salt marsh and mangrove

swamp, forming large zones of overlap where red mangrove and buttonwood become increasingly frequent or where the freshwater marsh species are gradually replaced by cordgrasses (*Spartina* spp.), saltgrass (*Distichlis spicata*) and shoreline seapurslane (*Sesuvium portulacastrum*).

Restoration and maintenance of historic hydrologic conditions should occur to maintain the complex mosaic of wetland communities. Water levels should continue to be monitored, and potential restoration projects should occur to reduce the excessive draining of fresh water through canals. Invasive plant removal activities throughout this natural community should continue. Marl prairie prescribed fires should be allowed to burn into the Glades marsh, but only when conditions are wet enough to prevent ignition of peat soils.

Estuarine Mangrove Swamp

Tidal swamps in Fakahatchee Strand seem unaltered by man except at obvious disturbed sites like Faka Union Canal with its high spoil bank. The northern edge of the mangrove forest has migrated northwards since the 1940s because drainage canals in this region reduced the broad freshwater pressure head of surface flows from the mainland, thus allowing saltwater to transport mangrove propagules farther inland.

Restoration and maintenance of historic hydrologic conditions will help to protect this natural community. Removal of invasive Brazilian pepper plants and maintenance of invasive plant control should continue.

Marl Prairie

Marl prairies include mosaics of prairie mesic hammocks, dome swamps and small strand swamps. Large expanses of these prairies appear undisturbed. On Dan House Prairie, No Name Prairie and in portions of the East Prairies, there are some barely perceptible signs of agricultural sites where tomatoes were planted in the 1930s. Drainage features associated with the agricultural use of the land divert some of the subsurface and surface water sheet flow. However, at the edges of these prairies, numerous young cypress trees and some pine trees can be seen trying to extend the forest edge. These encroaching trees are less numerous since fire frequency has been increased. Due to ongoing prescribed fire and hydrologic restoration, the floristic diversity is in excellent condition. As with the wet flatwoods natural community along the western boundary near Prairie Canal, cabbage palm density is greater than desired. The marl prairies are generally in good condition except for the presence of unauthorized ORV trails that have caused soil compaction, alteration of plant species and the of spread invasive grass species such torpedo grass (*Panicum repens*).

This natural community should be burned every one to three years to maintain the dominant graminoids and prevent the encroachment of cypress, pines and wax myrtle. A plan should be developed and implemented to improve sheet flow by filling ditches or plugging canals and reducing the diversion of water from the prairies formerly used for agriculture. Invasive plants should be monitored and treated when encountered. The density of cabbage palms should be reduced where they are overly abundant. DRP should mitigate impacts from ORVs by enforcing preserve rules and requiring landowners to access private property by designated trails.

Salt Marsh

Significant portions of salt marsh have experienced mangrove encroachment during the years when canals provided conduits for saltwater to advance farther inland. Embedded within the salt marsh are variants of this natural community, referred to as “salt flats.” These are excessively high salinity areas that preclude most vegetation and appear as white and barren due to the buildup of salt. More than 200 combined acres of salt flat can be identified from aerial photography in two areas. Undisturbed salt flats can be important areas for ground nesting plovers and other species. Several bird species such as the Florida clapper rail (*Rallus crepitans crepitans*), reddish egret (*Egretta rufescens*), tricolored heron (*Egretta tricolor*) and roseate spoonbill (*Platalea ajaia*) favor the salt marshes. Rare mammals such as the Everglades mink (*Neovison vison*) have been known to utilize the infrequently flooded upper marsh habitat. The American crocodile (*Crocodylus acutus*) has been documented within this natural community as well.

Mitigating the impacts of canals and other hydrological disturbances through projects such as the PSRP and others should be supported to help prevent the unnatural conversion of salt marsh to mangrove swamp. Other management measures include allowing prescribed fires intentionally set in the adjacent fire-type communities to encroach into the salt marsh, monitoring salt flats for ground nesting birds and excluding airboats and other vehicles.

Slough

Sloughs are found in the deepest section of underlying bedrock and are an integral part of the strand swamp. Hydrologically, they are distinguished by the presence of surface water at least two-thirds of the year (250 days). Vegetation is characterized by pond apple and pop ash trees, and frequently by southern giant rice (*Zizaniopsis miliacea*). It is also where the greatest number of orchids, bromeliads and ferns are found. Epiphytes are protected from frost in the winter months, and from desiccation during spring and early summer, by high levels of humidity emanating from surface water or organic soils and partially retained by the layered canopy of bald cypress (*Taxodium distichum*), pop ash and pond apple trees. The Florida Natural Areas Inventory (FNAI 2010) has identified Fakahatchee Strand Preserve State Park as an exemplary site for the slough natural community.

Restoration and maintenance of historic hydrologic conditions will help to protect this natural community from excessive drought and muck-consuming fires. The poaching of epiphytic plants, specifically orchids and bromeliads, is an on-going threat to this resource and protection remains a priority.

Strand Swamp

The word "strand" describes an elongated swamp forest typically dominated by bald cypress. These strand swamps are often conspicuous features of the landscape in the Big Cypress Swamp because they are dense forests bordered by more open terrain, and thus visible from a distance. Within the strand swamp are slough and rockland hammock communities as well.

The strand swamp is the largest and most disturbed of all natural communities in the preserve. It was once dominated by large bald cypress that formed a closed canopy with oaks confined to the higher ground and maple only occurring sporadically. Logging of cypress began around Copeland in 1944, advancing northward until it reached the remote strands of what is now the Golden Gate Estates in 1957. The aftermath of tree felling favored fires in the damaged forest during times of drought. Most of

the canopy had been eliminated, which permitted the sun to dry the organic substrate. Large amounts of logging slash were also available as fuel. Severe fires followed the logging of the 1940s and early 1950s. Willow initially seeded into the burned sites but have gradually been replaced by maple and laurel oak. The impacts to hydrology associated with drainage canals along with logging tram roads were every bit as impactful as the logging operations. Cypress trees have regenerated and are slowly regaining their primeval stature. Ongoing efforts to reestablish the natural hydrology have improved conditions, and may one day return this community to its pre-disturbance grandeur.

As mentioned above, there are numerous smaller strand swamps within the preserve's larger prairie matrix. These tend to be younger in origin but formed and continue to evolve by the same erosional processes that formed the preserve's iconic Fakahatchee Strand Swamp. As younger and smaller strand swamps, they have simpler vegetative composition. Ecologically, these lesser strand swamps are identical to the regionally abundant dome swamp communities dominated by bald cypress, differing only by forming from linear depressions, rather than circular ones. The small strand swamps are largely unaltered, aside from some hardwood dominance resulting from fire exclusion or fire infrequency in the surrounding prairies. In the absence of frequent fires, hardwoods grow rapidly in these communities. Despite these alterations, FNAI also identifies Fakahatchee Strand Preserve State Park as an exemplary site for the occurrence of strand swamp.

Restoration and maintenance of historic hydrologic conditions will help to improve and protect this natural community from excessive drought and muck-consuming fires. Efforts to preserve, and in some cases restore, populations of listed species such as the Everglades mink, wood stork (*Mycteria americana*), limpkin (*Aramus guarauna*), ghost orchid (*Dendrophylax lindenii*), cowhorn orchid (*Cyrtopodium punctatum*), umbelled epidendron (*Epidendrum floridense*) and giant air plant (*Tillandsia utriculata*) are ongoing.

Marsh Lake

Marsh lake is characterized by an open water zone (with or without floating plants) surrounded by glades marsh. Water generally remains throughout the year, although water levels may fluctuate substantially.

There are three marsh lakes located within the greater glades marsh, just north of U.S. Highway 41. The margin of these lakes is dominated by cattails (*Typha spp*.) and sand cordgrass. One of the lakes is surrounded by Brazilian pepper and is therefore in less-than-optimal condition.

Restoration of historic hydrological conditions will help to reestablish and maintain optimal water levels and minimize excessive drought and muck-consuming fires. Management measures should also include comprehensive survey and treatment of invasive plant species. Fires burning in the surrounding marsh should be allowed to extend into the lakeshore.

Swamp Lake

There are more than 97 small lakes in the preserve and appear unaffected by past human disturbance to the landscape. These swamp lakes provide important aquatic refugia for the American alligator (*Alligator mississippiensis*), river otter (*Lontra canadensis*), many native fish species, as well as various turtle and frog species. The swamp lakes are also utilized as nesting and feeding areas for black-crowned night herons (*Nycticorax nycticorax*), wood storks (*Mycteria americana)*, purple gallinules (*Porphyrula*

martinica), egrets, herons and ibis. In general, the swamp lakes are in good condition, except for a few invasive plant species that keep them from being considered pristine.

Restoring historic hydrology will also help to protect this natural community from drought conditions and muck-consuming fires. Several of the swamp lakes are impacted by the presence of invasive cichlids and invasive aquatic vegetation such as hydrilla (*Hydrilla verticillata*) and water lettuce (*Pystia stratiotes*). Efforts to remove invasive species in these areas are ongoing.

Blackwater Stream (Tidal Creek)

The three examples of this community originate south of U.S. Highway 41 where various wetlands that source these streams converge. The streams meander south through salt marsh and mangrove swamp towards the Ten Thousand Islands, where their lower segments are tidally influenced before meeting the Gulf. Salinity varies depending on time of year, with freshwater levels higher in the summer months and lower in the fall and winter, corresponding with seasonal rains. Brazilian pepper is the most prevalent invasive species along portions of the streams, although Australian pine is also abundant. Many of the invasive plants take root and survive along the banks or on higher ground during the winter and spring months when water levels are much lower or even nonexistent. As the stream progresses southward it is likely that most of the invasive species will be found above the mean high tide mark.

Notable animal species include the Florida manatee (*Trichechus manatus latirostris*), river otter, fresh and saltwater fish species, alligator, various turtle species, wading birds, fresh and mangrove water snakes (*Nerodia clarkii compressicauda*), snails, a variety of frog species, crabs and small mammals. Non-native invasive fish are common in the upper, freshwater dominant, stream segments including spotted tilapia (*Tilapia mariae*) and walking catfish (*Clarias batrachus*).

Long-term management will include continued invasive plant treatments. Overall, this community should contain less than two percent of invasive plants to be considered in maintenance. DRP should also improve preserve boundary delineation, where necessary, to aid law enforcement efforts.

Estuarine Unconsolidated Substrate

Estuarine unconsolidated substrate, also referred to as “mud flats” or “tidal flats,” consists of expansive, unvegetated, open areas of mineral based substrate composed of shell, coralgal, marl, mud and/or sand (sand beaches). Desired conditions include preventing soil compaction, dredging activities and disturbances such as the accumulation of pollutants. There are discontinuous, isolated patches south of U.S. Highway 41 that considerable numbers of wading birds, shore birds and waterfowl utilize at low tide. Although superficially appearing barren, this community is rich in invertebrates and bottom-feeding fish which support numerous wading birds. This community may also be very important to the federally threatened smalltooth sawfish (*Pristis pectinata*). This community varies from being in good to excellent condition.

The adjacent narrow blackwater stream combined with the characteristic shallow, silty bottom of the estuarine unconsolidated substrate community precludes motorized vessel navigability. Continuing to exclude public motorboats is necessary in these sensitive natural areas. Additionally, monitoring for potential invasive marine invaders, e.g., Asian green mussels (*Perna viridis*) and Indo-Pacific lionfish (*Pterois spp*.) should be prioritized.

Altered Land Cover Types

Borrow Area

Approximately 408 acres in the preserve are considered borrow areas, with most acreage constituting "borrow lakes." One of the subject areas is the large site in the northeast corner of the preserve that was used for the excavation of fill for the construction of I-75. All vegetation was removed and lime rock extracted, leaving several large borrow lakes. These areas feature a variety of opportunistic plants that have naturally recruited after disturbance. Another site includes the 200 acres formerly owned by the Harmon Brothers Rock Company near the office/shop compound at the beginning of Janes Scenic Drive. The surrounding areas are either covered in opportunistic, invasive plant species and weedy native plant species, or are devoid of vegetation. The borrow areas are located within a greater footprint of marl prairies and strand swamps. Both native and non-native fish species are found in these borrow lakes. Wading birds have been observed along the lake shoreline but foraging is limited by the steep slope. Management measures include treating invasive plants, developing a plan to reclaim the borrow areas to a more natural condition, improving habitat for wetland dependent fish and wildlife and creating a potential bird rookery site. This is described in more detail in the Resource Management Component Section and Implementation Table. Occasional mowing is often beneficial to various birds for resting and nesting such as killdeer (*Charadrius vociferous*), common nighthawk (*Chordeiles minor*) and Chuck-will's widow (*Antrostomus carolinensis*).

Canal/Ditch

The canals and ditches within the preserve are remnants of past human disturbance, which, in the case of the canal north of U.S. Highway 41, continue to alter the hydrologic function and possibly the water quality in adjacent natural communities. The canal also provides a deep-water habitat for various types of wildlife including American alligator, American crocodile, various turtle and snake species, great egret, snowy egret, tricolored heron and many freshwater fish species.

Recognizing these altered communities can be beneficial in certain scenarios, DRP should work with other resource management agencies to pursue hydrological restoration projects that recognize species use of current conditions and minimize negative impacts to adjacent natural communities. For example, shallow ditches may provide greater topographic and hydroperiod variation as opposed to marl prairies, which in turn supports a larger biomass of aquatic organisms to persist over a longer period of water level drawdown, benefiting wading birds such as wood stork. These and other species benefit from projects that consider providing foraging habitat in addition to hydrological restoration services.

Developed

Numerous roads and trams were built during periods of timber removal. Several are used as visitor access roads, such as Janes Scenic Drive, or as service roads. The upland areas adjacent to the former borrow areas described above are also included as developed.

Development should not interfere with resource management activities such as prescribed burning and hydrological restoration, or with cultural resource management. In addition, DRP should continue to treat invasive plant species to prevent spreading into adjacent natural communities.

IMPERILED SPECIES

There are 86 designated plant species and 24 designated animal species recorded within the preserve boundary. Fakahatchee Strand is one of the most diverse and species dense natural systems in all of Florida. With the convergence of two biomes, the preserve is conducive to the survival of many species of both tropical and temperate origin, yielding the high biodiversity of the region.

Fakahatchee Strand Preserve State Park boasts the largest stand of Florida royal palms in the United States. One of only four locations in southern Florida where this tree naturally occurs, the preserve also contains one of only two sites in the world where you can find bald cypress and royal palms in the same natural community. Furthermore, the preserve is home to the most dense and biologically diverse species of orchids in the United States. Moreover, the highest prevalence of bromeliad and peperomia species in the country, as well as the second highest prevalence of native fern species in Florida can be found within the preserve. Ten of the 14 species of bromeliads within the preserve are vulnerable to the Mexican bromeliad weevil, a known threat dating back to March 2002.

Fakahatchee Strand Preserve State Park is also the habitat for at least 12 species of plants historically found nowhere else in the United States, including the rat-tail orchid (*Bulbophyllum pinelianum),* narrow strap fern *(Campyloneurum angustifolium),* nodding catopsis *(Catopsis nutans)*, Acuna's star orchid (*Epidendrum blancheanum*), matted epidendrum (*Epidendrum strobiliferum*), tiny orchid (*Lepanthopsis melanantha*), purple tiger orchid (*Maxillaria parviflora*), winged peperomia (*Peperomia alata*), hanging firmoss (*Phlegmariurus dichotomus*), dwarf encyclia (*Prosthechea pygmaea*), frost-flower orchid (*Stelis gelida*) and stately maiden fern (*Thelypteris grandis*). Five additional species occur in the preserve that are currently found nowhere else in the United States but historically had populations in at least one other natural area. These species include the moss orchid (*Cranichis muscosa*), tall neottia (*Cyclopogon elatus*), hammock rein orchid (*Habenaria distans*), tall twayblade (*Liparis nervosa*), pelexia (*Pelexia adnata*), tiny orchid (*Lepanthopsis melanantha*), dwarf epidendrum (*Prosthechea pygmaea*), Acuna's star orchid, hanging club-moss (*Phlegmariurus dichotomus*) and nodding catopsis (*Catopsis nutans*). The preserve also provides habitat for six additional plant species known to survive only at a few locations in the United States: tall liparis (*Liparis nervosa*), leafless ribbon orchid (*Campylocentrum pachyrrhizum*), umbelled epidendrum (*Epidendrum floridense*), matted epidendrum (*Epidendrum strobiliferum*), guzmania (*Guzmania monostachia),* cypress peperomia (*Peperomia glabella*), round peperomia (*Peperomia rotundifolia*) and leafy vanilla (*Vanilla phaentha*). Each species is exceedingly rare and would be valued by collectors.

The cowhorn orchid is state listed as endangered, with still less than 30 wild plants documented within the preserve as of 2026. Annual surveying should be continued to locate other individuals or populations. Surveying should be focused in the strand swamps and marl prairies at the preserve. This species has served as a good candidate for population augmentation with immature plants. Research is currently being conducted on cowhorn orchid augmentation, where nursery grown young plants are being placed in suitable habitat at the preserve, with follow-up monitoring done to determine success and document mortality. The outplantings from the restoration project are just now reaching reproductive maturity. Currently, the project has had encouraging results, with over 80 percent survival to date. Seedlings from these survivors will take a couple years to be identifiable. As such, there has not been any recruitment to propagate new wild plants. Restoring the hydrology will improve the habitat and possibly increase the survival rate of these orchids. This species is showy and easily observed, so it is vulnerable to poaching by orchid collectors.

The ghost orchid (*Dendrophylax lindenii*) is state listed as endangered and is most certainly the flagship plant species of the preserve. USFWS proposed listing the ghost orchid as federally endangered in June 2025. Approximately 350 of these plants have been documented within the deep sloughs of Fakahatchee Strand. These plants are regularly monitored but despite the best efforts of preserve staff and volunteers, poaching by orchid collectors continues to be a major threat to this species.

Several overgrown trams now serve as prime habitat for rare and imperiled plant species. Therefore, overgrown trams should not be cleared if they contain imperiled plants or if they serve a well-defined need. Surveying these trams for imperiled species should be repeated at 10-year intervals to record any changes that might have occurred.

The American alligator is another charismatic component of the preserve and serves as the focal point of many visitors to South Florida. This reptile shapes the wetland landscape of the Big Cypress Swamp ecosystem through its predatory interactions in the food web as well as the wallowing activities during the dry season to maintain deeper water in "gator holes." Another reptile with a tropical affinity is the federally threatened American crocodile, found in low numbers in the southern end of the preserve within the tidal mangrove swamp south of U.S. Highway 41. There have been no specific surveys within the preserve recently, but 24 crocodiles have been reported within preserve boundaries since 2000.

Several listed wading birds are observed in the marshes, mangroves and waterways of the preserve, and a known colonial wading bird nesting colony and night roost is present at the entrance to the East River. Species include the great white heron (*Ardea herodias occidentalis*), little blue heron (*Egretta caerulea*), reddish egret (*E. rufescens*), snowy egret (*E. thula*), tricolored heron (*E. tricolor*), white ibis (*Eudocimus albus*), wood stork (*Mycteria americana*) and roseate spoonbill (*Platalea ajaja*). Monthly monitoring is being conducted for these species, and the removal of trash and fishing debris (line, lures, hooks) around the boat launch and other waterways benefits these species by reducing the risk of accidental entanglement causing injury or death. The major threat that will impact these populations in the near and foreseeable future is the invasion into the preserve by Burmese pythons (*Python bivittatus*). Currently there are passive python eradication programs in place, however, a systematic removal program conducted by professional government agencies would improve eradication efforts.

The red-cockaded woodpecker (*Leuconotopicus borealis*) is a federally threatened species recorded historically "on the edge of a very large pine island on the west side of the Fakahatchee Swamp" (The Florida Naturalist, v.20 1947). The Florida Fish and Wildlife Conservation Commission (FWC) believes there are good quality fire-maintained mesic and wet flatwoods for red-cockaded woodpecker foraging and nesting habitat. The preserve would be a good candidate for reintroduction of the species. It is also reasonable to expect natural recruitment by birds from nearby Big Cypress National Preserve and Florida Panther National Wildlife Refuge. Maintaining optimum open conditions with low groundcover, few trees or shrubs in the understory and a widely spaced mature slash pine canopy is essential for having habitat available for this species. Participating in red-cockaded woodpecker reintroduction efforts and managing the resource with frequent fire will also benefit the Big Cypress fox squirrel (*Sciurus niger avicennia*), a state threatened species rarely observed within the preserve.

Bald eagles (*Haliaeetus leucocephalus*) are no longer state or federally listed; however, there are still guidelines for the protection of nesting eagles. There is a nest near the Big Cypress Boardwalk, which is annually monitored for nesting activity. Protocol involves documenting the date adults return to the nest, weekly updates on eaglet activity and documenting the number of eaglets fledged between April and May.

The Everglades mink population at Fakahatchee Strand Preserve State Park is one of the best documented in South Florida. Canine distemper virus (CDV) wiped out much of the Everglades mink population in the early 2000s. Everglades mink observations totaled 164 individuals from October 1993 through March 2014. Their population has since recovered from the CDV outbreak and Everglades mink are now seen regularly with hundreds of sightings a year. FWC is currently conducting research that includes Fakahatchee Strand as the primary area of study for the Everglades mink.

Perhaps the best known of the endangered animals of the preserve is the Florida panther. Beginning in 1981, panthers became the focus of intensive study, and many panthers in Florida have included Fakahatchee Strand within their range at one time or another. Fakahatchee Strand is the largest hardwood forest in southern Florida, and the extensive cover provided by its dense vegetation offers an attractive environment for both panthers and their prey, including fawns. The number of fawns observed by preserve staff increased significantly between 2003 and 2014. This may be attributed to an improved prescribed fire program, which has resulted in burning an average of nearly 9,000 acres annually across more management zones for longer periods throughout the year. As such, prescribed fire helps maintain the predator-prey balance and in turn, Florida panthers as keystone species help structure and balance the ecosystem of South Florida.

Florida manatee (*Trichechus manatus latirostris*) is federally listed as endangered. Manatees are seen periodically along U.S. Highway 41, in the East River, Faka Union Canal, Fakahatchee River and Fakahatchee Bay. Manatees in the preserve would benefit by improved signage along waterways and increased enforcement of speed zones that are also designated to protect recreational users in canoes and kayaks. Boat strikes remain the biggest threat to manatees. Education and outreach are critical to their continued protection.

The table below contains a list of all known imperiled species within the preserve and identifies their status as defined by various entities. It also identifies the types of management actions that are currently being taken by DRP staff or others and identifies the current level of monitoring effort. The codes used under the column headings for management actions and monitoring level are defined following the table. Explanations for federal and state status as well as FNAI global and state rank are provided in appendix.

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
PLANTS						
Triangle cactus *Acanthocereus tetragonus*			T		2, 4	Tier 2
Everglades palm *Acoelorraphe wrightii*			T		2, 4	Tier 2
Golden leatherfern *Acrostichum aureum*			T	G5, S3	1, 2, 4	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Auricled spleenwort *Asplenium erosum*			E	G5, S2	2, 4, 10	Tier 2
Wild birdnest fern *Asplenium serratum*			E	G4, S1	2, 4, 10	Tier 2
Hammock fern *Blechnum occidentale var. minor*			E		2, 4, 10	Tier 2
Pine-pink orchid *Bletia purpurea*			T		1, 2, 4, 10	Tier 2
Everglades Key Fasle Buttonweed *Borreria terminalis*			T		2, 4	Tier 2
Rat-tail orchid *Bulbophyllum pachyrachis*			E	G3G5, SX	2, 4, 10	Tier 2
Fakahatchee burmannia *Burmannia flava*			E	G5, S1	1, 2, 4, 10	Tier 1
Ribbon orchid *Campylocentrum pachyrrhizum*			E	G4?, S1	2, 4, 10	Tier 2
Narrow strap fern *Campyloneurum angustifolium*			E	G4G5, S1	2, 4, 10	Tier 2
Tailed strap fern *Campyloneurum costatum*			E	G5, S1	2, 4, 10	Tier 2
Powder strap airplant *Catopsis berteroniana*			E	G5?, S1	2, 4, 10	Tier 2
Many-flowered airplant *Catopsis floribunda*			E	G3G5, S1	2, 4,10	Tier 2
Nodding catopsis *Catopsis nutans*			E	G5?, S1	2, 4, 10	Tier 2
Satinleaf *Chrysophyllum oliviforme*			T		2, 4, 10	Tier 2
Moss orchid *Cranichis muscosa*			E	G4G5, S1	2, 4, 10	Tier 2
Florida tree fern *Ctenitis sloanei*			E	G5, S2	2, 4, 10	Tier 2
Brown-hair comb fern *Ctenitis submarginalis*			E	G5, S1	2, 4, 10	Tier 2

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Tall neottia *Cyclopogon elatus*			E	G4G5, SH	2, 4, 10	Tier 2
Cowhorn orchid *Cyrtopodium punctatum*			E	G5?, S1	2, 4, 10, 14	Tier 5
Ghost orchid *Dendrophylax lindenii*		UR	E	G1, S1	2, 4, 10, 13	Tier 4
Threadroot orchid *Dendrophylax porrecta*			T		2, 4, 10	Tier 2
Guiana plum *Drypetes lateriflora*			T		2,4, 10	Tier 2
Longclaw orchid *Eltroplectris calcarata*			E	G4?, S1	2, 4, 10	Tier 2
Dingy-flowered epidendrum *Epidendrum anceps*			E		2, 4, 10	Tier 2
Acuna's star orchid *Epidendrum blancheanum*			E	G3G5, SX	2, 4, 10	Tier 2
Night-scented epidendrum *Epidendrum nocturnum*			E	G4G5, S2	2, 4, 10	Tier 2
Rigid epidendrum *Epidendrum rigidum*			E		2, 4, 10	Tier 2
Matted epidendrum *Epidendrum strobiliferum*		UR	E	G4, S1	2, 4, 10	Tier 2
Fakahatchee guzmania *Guzmania monostachia*			E	G4G5, S1S2	2, 4, 10	Tier 2
Hammock rein orchid *Habenaria distans*			E	G5, S1	2, 4, 10	Tier 2
Sea rosemary *Heliotropium gnaphalodes*			E		2, 4, 10	Tier 2
Chiggery grapes *Heliotropium verdcourtii*			E		2, 4, 10	Tier 2
Delicate ionopsis *Ionopsis utricularioides*			E	G4G5, S1	2, 4, 10	Tier 2
Florida lantana *Lantana depressa var. floridana*			E	G2T1, S1	2, 4, 10	Tier 2
Tiny orchid *Lepanthopsis melanantha*			E	G3G4, SX	2, 4, 10	Tier 2

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Small's flax *Linum carteri var. smallii*			E	G2, S2	1, 2, 4, 10	Tier 2
Tall twayblade *Liparis nervosa*			E		2, 4, 10	Tier 2
Southern frogfruit *Lippia stoechadifolia*			E		2, 4, 10	Tier 2
Hidden orchid *Maxillaria crassifolia*			E	G4, S1	2, 4, 10	Tier 2
Minnie-max orchid *Maxillaria parviflora*			E		2, 4, 10	Tier 2
Small-leaf squarestem *Melanthera parvifolia*			T		2, 4, 10	Tier 2
Spicewood *Myrcia neopallens*			T		2, 4, 10	Tier 2
Simpson's stopper *Myrcianthes fragrans*			T		2, 4	Tier 2
Giant sword fern *Nephrolepis biserrata*			T		2, 4	Tier 2
Florida oncidium *Oncidium ensatum*			E	G4, S1	2, 4, 10	Tier 2
Hand fern *Ophioglossum palmatum*			E	G4, S3	2, 4, 10	Tier 2
Pineland passionvine *Passiflora pallens*			E	G3G4, S2	2, 4, 10	Tier 2
Swamp plume polypody *Pecluma ptilota var. bourgeana*			E	G5?TNR, S2	2, 4, 10	Tier 2
Pelexia *Pelexia adnata*			E		2, 4, 10	Tier 2
Winged peperomia *Peperomia alata*			E	G4G5, S1	2, 4, 10	Tier 2
Cypress peperomia *Peperomia glabella*			E	G4G5, SH	2, 4, 10	Tier 2
Low peperomia *Peperomia humilis*			E	G5TNR, S2	2, 4, 10	Tier 2
Florida peperomia *Peperomia obtusifolia*			E	G5TNR, S2	2, 4, 10	Tier 2

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Round peperomia *Peperomia rotundifolia*			E		2, 4, 10	Tier 2
Hanging club-moss *Phlegmariurus dichotomus*			E	G5, S1	2, 4, 10	Tier 2
Goldenrod fern Pityrogramma trifoliata			T		2, 4, 10	Tier 2
Snowy orchid *Platanthera nive*a			T		2, 4, 10	Tier 2
Greater yellowspike orchid *Polystachya concreta*			E		2, 4, 10	Tier 2
Dollar orchid *Prosthechea boothiana var. erythronioides*			E	G4?T4?Q, S1	2, 4, 10, 14	Tier 2
Florida clamshell orchid *Prosthechea cochleata*			E	G4G5T2, S2	2, 4, 10	Tier 2
Dwarf encyclia *Prosthechea pygmaea*			E	G4G5, S1	2, 4, 10	Tier 2
Florida royal palm *Roystonea regia*			E	G2G3, S2	2, 4, 10	Tier 2
Leafless beaked ladies tresses *Sacoila lanceolata var. lanceolata*			T		2, 4, 10	Tier 2
Leafy beaked ladies tresses *Sacoila lanceolata var. paludicola*			T	G4T1, S2	2, 4, 10	Tier 2
Inkberry Scaevola plumieri			T		2, 4	Tier 2
Mullein nightshade *Solanum donianum*			T		2, 4, 10	Tier 2
Lace-lip ladies' tresses *Spiranthes laciniata*			T		1, 2, 4, 10	Tier 2
Giant spiral ladies' tresses *Spiranthes longilabris*			T		1, 2, 4, 10	Tier 2
Frost-flower orchid *Stelis gelida*			E	G5, S1	2, 4, 10	Tier 2
Broad halberd fern *Tectaria heracleifolia*			T		2, 4, 10	Tier 2

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Abrupt-tipped maiden fern *Thelypteris augescens*			T		2, 4, 10	Tier 2
Stately maiden fern *Thelypteris grandis*			E	G4G5TNR, S1	2, 4, 10	Tier 2
Lattice-vein fern *Thelypteris reticulata*			E		2, 4, 10	Tier 2
Toothed lattice-vein fern *Thelypteris serrata*			E	G5, S1	2, 4, 10	Tier 2
Reflexed wildpine *Tillandsia balbisiana*			T		2, 4, 10, 14	Tier 2
Cardinal airplant; Common wild pine *Tillandsia fasciculata*			E		2, 4, 10, 14	Tier 2
Twisted airplant; Banded wild pine *Tillandsia flexuosa*			LT	G5, S3	2, 4, 10, 14	Tier 2
Fuzzy-wuzzy airplant *Tillandsia pruinosa*			E	G4, S1	2, 4, 10, 14	Tier 2
Giant airplant; Giant wild pine *Tillandsia utriculata*			E		2, 4, 10, 14	Tier 5
Soft-leaved wildpine *Tillandsia variabilis*			T		2, 4, 10, 14	Tier 2
Leafy vanilla *Vanilla phaentha*			E	G4, S1	2, 4, 10	Tier 2
Simpson's zephyrlily *Zephyranthes simpsonii*			T	G2G3, S2S3	2, 4, 10	Tier 2
FISH						
Smalltooth sawfish *Pristis pectinata*	FE	E		G1G3, S1S2	4, 10, 13	Tier 1
REPTILES						
American alligator *Alligator mississippiensis*	FT (S/A)	SAT		G5, S4	4, 10,13	Tier 1
American crocodile *Crocodylus acutus*	FT	T		G2, S2	4, 10, 13	Tier 5
Eastern indigo snake *Drymarchon couperi*	FT	T		G3, S2?	1, 2, 6, 7, 8, 10, 13	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Gopher tortoise *Gopherus polyphemus*	ST			G3, S3	1, 2, 6, 7, 10, 13	Tier 1
BIRDS						
Great White Heron *Ardea herodias occidentalis*				G5T2, S2	13	Tier 1
Short-tailed hawk *Buteo brachyurus*				G4G5, S1	1, 2, 4, 13	Tier 1
Crested Caracara *Caracara cheriway*	FT	T		G5, S2	1, 2, 13	Tier 1
Little Blue Heron *Egretta caerulea*	ST			G5, S4	2, 4, 13	Tier 1
Reddish Egret *Egretta rufescens*	ST			G4, S2	2, 4, 13	Tier 1
Tricolored Heron *Egretta tricolor*	ST			G5, S4	2, 4, 13	Tier 1
Swallow-tailed kite *Elaniodes forficuatus*				G5, S2	1, 2, 13	Tier 1
Merlin *Falco colombarius*				G5, S2	13	Tier 1
Peregrine falcon *Falco peregrinus*				G4, S2	13	Tier 1
Florida sandhill crane *Grus canadensis pratensis*	ST			G5T2, S2	1, 2, 4, 13	Tier 1
Eastern Black Rail *Laterallus jamaicensis*	FT	T		G3, S2	1, 2, 4, 13	Tier 2
Red-cockaded woodpecker *Leuconotopicus borealis*	FT	T		G3, S2	1, 2, 3, 4, 6, 7, 13	Tier 5
Wood Stork *Mycteria americana*				G4, S2	2, 4, 13	Tier 1
White-crowned Pigeon *Patagioenas leucocephala*	ST			G3, S3	2, 13	Tier 1
Roseate Spoonbill *Platalea ajaja*	ST			G5, S2	2, 4, 13	Tier 1
Everglade Snail Kite *Rostrhamus sociabilis plumbeus*	FE	E		G4G5, S2	1, 2, 4, 13	Tier 1

Imperiled Species Inventory						
Common and Scientific Name	**Imperiled Species Status**				**Management Actions**	**Monitoring Level**
	FWC	**USFWS**	**FDACS**	**FNAI**		
Black Skimmer *Rynchops niger*	ST			G5, S3	13	Tier 1
Least Tern *Sternula antillarum*	ST			G4, S3	13	Tier 1
MAMMALS						
Sherman's short-tailed Shrew *Blarina shermani*	ST	UR		GH, SH	1, 2, 4, 10	Tier 1
Florida Bonneted Bat *Eumops floridanus*	FE	E		G1, S1	2, 4, 10	Tier 2
Everglades mink *Neovison vison* (south FL pop.)	ST			G5T2Q, S2	2, 4, 13	Tier 1
Florida Panther *Puma concolor cougar*	FE	E		G5T1, S1	1, 2, 4, 10, 13	Tier 2
Big Cypress fox squirrel *Sciurus niger avicennia*	ST			G5T2, S2	1, 2, 13	Tier 2
Florida Manatee *Trichechus manatus latirostris*	FT	T		G2G3T2, S2S3	4, 10, 13	Tier 1

Management Actions:

1. Prescribed Fire
2. Invasive Plant Removal
3. Translocation/Augmentation
4. Hydrological Maintenance/Restoration
5. Nest Boxes/Artificial Cavities
6. Hardwood Control
7. Mechanical Treatment
8. Predator Control
9. Erosion Control
10. Protection from Visitor Impacts
11. Decoys (Shorebirds)
12. Vegetation Planting
13. Outreach/Education
14. Other

Monitoring Level:

Tier 1. Non-Targeted Observation/Documentation: includes documentation of species presence through casual/passive observation during routine preserve activities (i.e., not conducting species-specific searches). Documentation may be in the form of Wildlife Observation Forms, or other district specific methods used to communicate observations.

Tier 2. Targeted Presence/Absence: includes monitoring methods/activities that are specifically intended to document presence/absence of a particular species or suite of species.

Tier 3. Population Estimate/Index: an approximation of the true population size or population index based on a widely accepted method of sampling.

Tier 4. Population Census: A complete count of an entire population with demographic analysis, including mortality, reproduction, emigration and immigration.

Tier 5. Other: may include habitat assessments for a particular species or suite of species or any other specific methods used as indicators to gather information about a particular species. [If referenced in table, provide discussion in narrative]

INVASIVE SPECIES

Invasive animal species include non-native wildlife species, free-ranging domesticated pets or livestock and feral animals. Because of the negative impacts to natural systems attributed to these animals, DRP

actively removes invasive animals from state parks, with priority being given to those species causing the most ecological damage. Preserve staff will explore the possibility of allowing a broader range of methods for trapping or removing Burmese pythons and other invasive species found in the preserve.

Of the 761 vascular plant species documented in the preserve, 146 are non-native. Of the 146 non-native plant species, 67 are on the Florida Invasive Species Council (FISC) list (43 Category I and 24 Category II). Elephant ear, umbrella tree, wild taro and orchid tree represent four of the 67 plant species on the FISC list that have been eliminated (one Category I and three Category II), leaving 63 non-native plant species on the FISC list currently present in the preserve (42 Category I and 21 Category II).

The most widespread plant pest in the preserve is Brazilian pepper. Its abundance and the difficulty of access in remote areas will make it the most troublesome of plants to eliminate. Over 100,000 Brazilian pepper trees were treated in the northwest portion of the preserve from the footprint of the plugged Prairie Canal to 0.25 miles east by a contractor funded by an FWC-Invasive Plant Management Section (IPMS) grant in 2009.

Melaleuca trees are being treated by cutting and applying herbicide and require follow-up treatment in order to prevent regrowth. Several hundred small melaleuca trees are scattered throughout sections of wet prairie and strand swamps. Since 2010, several hundred melaleuca have been eliminated, with additional treatments scheduled every year.

Fewer than 100 Australian pine trees are located on preserve land.

Air potato, another aggressive plant pest, has been eliminated from one of seven sites. The six remaining air potato sites will be treated by a combination of hand removal and herbicide and should be at a maintenance level within two to three years.

Cogon grass and climbing fern also are located within the preserve. Because of a high potential for rapid spreading, these plants must be vigorously treated wherever they are found. Cogon grass has been treated aggressively since 2000, with several sites (totaling approximately 2 acres) requiring follow-up treatment to reach maintenance conditions.

Napier grass is currently being treated along Janes Scenic Drive as of 2026. Within the 10-year planning period, preserve staff aims to reduce the cover class to a maintenance level along Janes Scenic Drive.

Torpedo grass has expanded in two regions of marl prairie. Specifically, these areas are within ORV trails used to access groundwater monitoring wells. Treatment planning is underway to reduce the percent coverage within these two trails.

Mexican petunia was vouchered with an herbarium specimen collected along Janes Scenic Drive in July 1998. It has spread to several patches along Janes Scenic Drive, and has colonized into dense, scattered patches along three trams. Preserve staff have made attempts to control this FISC Category I plant with measurable success through 2023.

Christmas senna was vouchered with an herbarium specimen in April 2000 along Jones Grade. This species expanded to include the area around the Harmon office building. Control efforts intensified during 2009, ultimately reaching a maintenance condition in 2010.

Rosary pea was identified and treated in April 2009 by a contractor working on a Brazilian pepper project funded by an IPMS grant. It was located east of the Prairie Canal in the northwest portion of the preserve. Annual follow-up inspection and treatments continue.

Old World climbing fern was first documented in the preserve during a resource management evaluation in October 1993. As of 2026, hundreds of sites have been found within Fakahatchee Strand. Preserve staff treats isolated infestations when identified, with follow-up treatment required for larger patches.

In 2007, about 20 Lygodium sites were treated with herbicide by a contractor with a grant from FWC's IPMS. All known Lygodium sites were revisited for follow-up herbicidal treatment by a contractor with an IPMS grant in 2011. Larger sites are visited and re-treated annually by preserve staff when live plants are found. Each site is monitored for several years after treatment to ensure that the fern has been fully removed.

The imported red fire ant (*Solenopsis invicta*) occurs mainly in marl prairie and wet flatwoods, where their mounds are most visible after fire. Mounds typically occur at densities ranging from 18 to 122 mounds per acre. In habitats that have been subject to hydrological disturbance, mound densities are higher, such that mounds are more prevalent in the prairies west of the strand swamp than those east of the strand swamp. The parasitic phorid "decapitating" fly (*Pseudacteon* spp.) that has been available as a biocontrol in Florida since 1999 should be considered for release in the preserve as a control method for fire ants.

The Mexican bromeliad weevil (*Metamasius callizona*) was documented within the preserve in March 2002. Harry Luther observed several giant airplants (*Tillandsia utriculata*) fallen to the ground on the East Main tram that were heavily mined by Mexican bromeliad weevil larvae on May 5, 2001. The Mexican bromeliad weevil fly (*Lixadmontia frankii*) was introduced on several occasions in 2008 and 2009 to establish a bio-control to reduce the negative impacts of the weevil on bromeliad populations in the preserve; however, this strategy was not successful due to the species affinity for cloud forests within its native range

At least 14 non-native fish species occur in the preserve, but no management actions are planned for these established species. Monitoring will continue for the occurrence of new invasive fish species. Invasive fish include oscar (*Astronotus ocellatus*), pike killifish (*Belonesox belizanus*), peacock cichlid (*Cichla ocellaris*), black acara (*Cichlasoma bimaculatum*), walking catfish (*Clarias batrachus*), African jewel cichlid (*Hemichromis bimaculatus*), brown hoplo (*Hoplosternum littorale*), Mayan cichlid (*Cichlasoma urophthalmum*), blue tilapia (*Oreochromis aureus*), Nile tilapia (*Oreochromis niloticus*), spotted tilapia (*Pelmatolapia mariae*), large South American suckermouth armored catfish "pleco" species (*Hypostomus* sp., or *Pterygoplichthys* sp.), Letourneux's jewel cichlid (*Rubricatochromis letourneuxi*) and Blackchin tilapia (*Sarotherodon melanotheron*).

Cuban tree frogs (*Osteopilus septentrionalis*) were first reported in the preserve in July 1979. Since their introduction, they have proliferated and are considered established parkwide.

Three large non-native snake species have been documented within the preserve. On December 8, 2004, a deceased 98-inch-long green anaconda (*Eunectes murinus*) was collected from U.S. Highway 41 approximately 5.8 miles west of State Road 29. A live Burmese python was captured on January 21, 2007, at the northeast borrow pits. A red-tailed boa constrictor (*Boa constrictor*) was captured alive on December 22, 2008, from Janes Scenic Drive approximately 2.2 miles north of the Copeland Fire tower.

A dead Burmese python was documented floating in the canal north of U.S. Highway 41 approximately 1.4 miles east of Faka Union Canal on January 4, 2012. Dozens of pythons have been caught since.

The Eurasian collared dove (*Streptopelia decoacto*) was first observed in the preserve near the Copeland fire tower on April 1, 1999, and also observed over the western part of Dan House Prairie in May 2008. As of 2026, they are regularly observed in ruderal and urban areas around Copeland. They have not been observed in natural areas of the park.

Feral hogs (*Sus scrofa*) were more common in the preserve in the 1990s but now are rare following acquisition of an inholding that previously supported a livestock farm. Hog populations may also be at a maintenance level due to predation by Florida panthers. Currently no management of this invasive species is required, but monitoring for its presence should continue.

Removals of invasive animals, such as large snakes, Cuban tree frogs, Mexican bromeliad weevil larvae and apple snail egg masses upstream of the preserve, have been performed in-house and as opportunity allowed.

Invasive Plant Species			
Common Name ***Scientific Name***	**FISC Category**	**Distribution**	**Zone ID**
Earleaf acacia *Acacia auriculiformis*	I	Single Plant or Clump	FS-D2
Orchid tree *Bauhinia variegata*	I	Single Plant or Clump	FS-D2
		Scattered Plants or Clumps	FS-E2
Australian pine *Casuarina equisetifolia*	I	Single Plant or Clump	FS-A4, FS-A6
		Scattered Plants or Clumps	FS-C3
Wild taro *Colocasia esculenta*	I	Single Plant or Clump	FS-A6
Durban crowfootgrass *Dactyloctenium aegyptium*	II	Linearly Scattered	FS-A7, FS-B2
Air potato *Dioscorea bulbifera*	I	Single Plant or Clump	FS-A2, FS-A3, FS-E2, FS-E3, FS-F08
		Scattered Dense Patches	FS-F10
		Linearly Scattered	FS-F10
Bowstring hemp *Dracaena hyacinthoides*	II	Single Plant or Clump	FS-C1
		Scattered Plants or Clumps	FS-D1
Surinam cherry *Eugenia uniflora*	I	Single Plant or Clump	FS-A3, FS-C2
		Scattered Plants or Clumps	FS-E2
Hydrilla *Hydrilla verticillata*	I	Scattered Plants or Clumps	FS-D2
		Scattered Dense Patches	FS-A1, FS-A2

Invasive Plant Species			
Common Name ***Scientific Name***	**FISC Category**	**Distribution**	**Zone ID**
Cogon grass *Imperata cylindrica*	I	Single Plant or Clump	FS-A6, FS-A7, FS-B2, FS-E3
		Scattered Plants or Clumps	FS-A2, FS-A4, FS-F09
		Scattered Dense Patches	FS-F07
Lantana *Lantana camara*	I	Scattered Plants or Clumps	FS-A2, FS-C1, FS-F05, FS-F08
Lead tree *Leucaena leucocephala*	II	Single Plant or Clump	FS-B4
		Scattered Plants or Clumps	FS-A2
		Linearly Scattered	FS-A4
Peruvian primrosewillow *Ludwigia peruviana*	I	Scattered Plants or Clumps	FS-A4, FS-A5, FS-B2, FS-F09, FS-F10
Old World climbing fern *Lygodium microphyllum*	I	Single Plant or Clump	FS-A1, FS-A4, FS-C2, FS-F06
		Scattered Plants or Clumps	FS-A3, FS-A5, FS-B1, FS-C1, FS-C3, FS-D1, FS-E4, FS-F04, FS-F10
Melaleuca *Melaleuca quinquenervia*	I	Single Plant or Clump	FS-A6, FS-B2, FS-C2, FS-E1
		Scattered Plants or Clumps	FS-A2, FS-A5, FS-A7, FS-B1, FS-C3, FS-D1, FS-D2, FS-D3, FS-E3, FS-F02, FS-F05, FS-F06, FS-F08, FS-F09, FS-F10
		Scattered Dense Patches	FS-B3, FS-C1
Asian sword fern *Nephrolepis brownii*	I	Scattered Plants or Clumps	FS-D2
Burma reed *Neyraudia reynaudiana*	I	Single Plant or Clump	FS-B1
		Scattered Plants or Clumps	FS-A2, FS-A3, FS-A4, FS-E1, FS-F09, FS-F10
		Linearly Scattered	FS-C1, FS-E2
Torpedo grass *Panicum repens*	I	Scattered Plants or Clumps	FS-A5, FS-A7, FS-B1, FS-C2, FS-E2
		Scattered Dense Patches	FS-B4
Napier grass *Cenchrus purpureus*	I	Single Plant or Clump	FS-E2
		Scattered Plants or Clumps	FS-B1, FS-B2, FS-F09
		Linearly Scattered	FS-C1, FS-E1
Water lettuce	I	Scattered Plants or Clumps	FS-A5, FS-F10

Invasive Plant Species			
Common Name ***Scientific Name***	**FISC Category**	**Distribution**	**Zone ID**
Pistia stratiotes			
Strawberry guava *Psidium cattleianum*	I	Scattered Plants or Clumps	FS-F05, FS-F08
Guava *Psidium guajava*	I	Single Plant or Clump	FS-F10
		Scattered Plants or Clumps	FS-B1, FS-F05, FS-F08
		Linearly Scattered	FS-C2, FS-C3, FS-E4, FS0F04, FS-F07, FS-F10
Chinese brake fern *Pteris vittata*	II	Scattered Plants or Clumps	FS-F09
Brown's blechum *Ruellia blechum*	II	Scattered Plants or Clumps	FS-F09
Mexican petunia *Ruellia simplex*	I	Scattered Plants or Clumps	FS-B1, FS-B2, FS-C1
		Scattered Dense Patches	FS-F10
		Linearly Scattered	FS-A1, FS-A3, FS-A5, FS-E4, FS-F10
Umbrella tree *Heptapleurum actinophyllum*	I	Single Plant or Clump	FS-C1, FS-E2
Brazilian pepper *Schinus terebinthifolius*	I	Scattered Plants or Clumps	FS-A2, FS-A4, FS-A5, FS-A6, FS-A7, FS-B2, FS-B3, FS-B4, FS-B5, FS-C1, FS-C2, FS-C3, FS-D1, FS-D2, FS-D3, FS-F01, FS-F02, FS-F03, FS-F04, FS-F06, FS-F07, FS-F08, FS-F09
		Scattered Dense Patches	FS-E1, FS-E2, FS-E3, FS-E4, FS-F05, FS-F10
		Dense Monoculture	FS-B1
		Linearly Scattered	FS-A1, FS-A3, FS-F10
Climbing cassia *Senna pendula*	I	Scattered Plants or Clumps	FS-A6, FS-E2
		Scattered Dense Patches	FS-A2
Wedelia *Sphagneticola trilobata*	II	Single Plant or Clump	FS-A7
		Scattered Plants or Clumps	FS-C1, FS-E1, FS-E2
Arrowhead vine *Syngonium podophyllum*	I	Single Plant or Clump	FS-A5, FS-A6, FS-C1, FS-E4
		Scattered Plants or Clumps	FS-A4

Invasive Plant Species			
Common Name ***Scientific Name***	**FISC Category**	**Distribution**	**Zone ID**
Java plum *Syzygium cumini*	I	Single Plant or Clump	FS-B1, FS-B2, FS-B4, FS-E2
		Scattered Plants or Clumps	FS-A1, FS-A2, FS-A4, FS-A5, FS-A6, FS-A7, FS-F05, FS-F08
Seaside mahoe *Thespesia populnea*	I	Dense Monoculture	FS-D2
Caesar's weed *Urena lobata*	I	Scattered Plants or Clumps	FS-A4, FS-A6, FS-E2, FS-F09
		Linearly Scattered	FS-A1, FS-A3, FS-A5, FS-B1, FS-C2, FS-C3, FS-E1, FS-E3, FS-E4, FS-F04, FS-F07, FS-F10
Para grass *Urochloa mutica*	I	Scattered Plants or Clumps	FS-A3
Elephant ear *Xanthosoma sagittifolium*	II	Scattered Plants or Clumps	FS-C1

SPECIAL MANAGEMENT CONSIDERATIONS

Arthropod Control Plan

Fakahatchee Strand Preserve State Park is located in a remote area, disconnected from significant population centers, so an arthropod control plan has not been requested or developed.

See the Florida State Park System – Statewide Philosophy and Framework for additional information.

Additional Considerations

The use of ORVs in the preserve is prohibited. Private landowners may be given written permission to access their property by ORV via authorized preserve roads or trails. Unauthorized entry by ORVs continues to be a significant management challenge at numerous points along State Road 29 where ORVs frequently access the preserve. Land acquisition and cooperation with private landowners have reduced the number of uncontrolled access points in recent years, but many points of access remain uncontrolled. Uncontrolled access can result in adverse impacts to natural communities, hydrology and wildlife populations.

FAKAHATCHEE STRAND PRESERVE STATE PARK
Existing Cultural Resources

BIG CYPRESS REGION

CULTURAL RESOURCES

All newly discovered, or previously unrecorded, sites will be entered in the Florida Master Site File (FMSF). Additional cultural inventory in this large preserve should be guided by a predictive model being developed by the University of South Florida, indicating areas of high, medium and low sensitivity for potential cultural site occurrence. A Scope of Collections Statement is also needed.

This task should be completed as soon as possible to ensure the integrity of all collected objects within the preserve. The archaeological collection should be sent to the Department of State's Division of Historical Resources (DHR) for curating and cataloging. A conservation schedule and Scope of Collections Statement should also be prepared. Training in the care of collection objects will be provided by the DRP's Bureau of Natural and Cultural Resources.

This section addresses the cultural resources present in Fakahatchee Strand Preserve State Park which may include archaeological sites, historic buildings and structures, cultural landscapes and collections. DHR maintains the master inventory of such resources through the FMSF. State law requires that all agencies locate, inventory and evaluate cultural resources which appear to be eligible for listing in the National Register of Historic Places. The appendix contains the management procedures for archaeological and historical sites and properties on state-owned or controlled properties, the criteria used for evaluating eligibility for listing in the National Register of Historic Places and the Secretary of Interior's definitions for the various preservation treatments (i.e., restoration, rehabilitation, stabilization and preservation). For the purposes of this management plan, "significant archaeological site," "significant structure" and "significant landscape" means those cultural resources listed or eligible for listing in the National Register of Historic Places. The terms "archaeological site," "historic structure" or "historic landscape" refer to all resources which will become 50 years old during the term of this plan. The following is a summary of the FMSF inventory and the related evaluation of significance.

There are 12 historic structures, one historic structures resource group and three linear resource groups recorded in the FMSF for the preserve. Five of the recorded historic structures (FK1-31 (8CR00983), FK1-18 (8CR00987), FK3-4 (8CR00988), FK1-30 (8CR00989) and FK1-16 (8CR00997)) are late 1950s hunting cabins. Four other structures in the vicinity of the preserve headquarters will become 50 years of age during the plan period. One is the former shop/office building (8CR01098) located on Janes Scenic Drive, with the other three structures being Florida Forest Service buildings which comprise the Copeland Division of Forestry Structures Resource Group (8CR01112): the Copeland Fire Tower (8CR01099), a ranger residence (8CR01100) and a pump house/storage shed (8CR01101). Two of the recorded historic structures, FK1-4 (8CR00992) and FK3-3 (8CR01013), are 20th century dump sites.

The preserve's three recorded linear resource groups are U.S. Highway 41 (8CR00927), the Tamiami Canal (8CR00928) and FK1/Lee Tidewater Fakahatchee Logging Tram System (8CR01016). The Tamiami Canal was built to provide road material for the construction of the Tamiami Trail (U.S. Highway 41). The Lee Tidewater Cypress Company constructed and used the tram system from 1944 to 1957 to facilitate logging in Fakahatchee Strand.

The condition of hunting camps and cabins varies significantly from site to site. These will be visited during the period of this plan to update the information in the Cultural Resources table.

The historic structures found within the preserve, including the shop/office building (8CR01098), Copeland Fire Tower (8CR01099), ranger residence (8CR01100) and pump house/storage shed

(8CR01101), are in varying condition. The buildings that are actively used are in good condition, but the Copeland Fire Tower and pump house/storage shed are in poor condition. As of 2026, both structures require stabilization and rehabilitation to reinforce the integrity of the structures and protect them from the elements (see objective under Preservation Measures section below).

The remnants of the FK1/Lee Tidewater Fakahatchee Logging Tram System (8CR01016) comprise the largest and one of the most culturally and environmentally significant features of Fakahatchee Strand. The tram system is considered eligible under National Register Criterion A as it reflects the intensive logging practices of the 1940s and its dramatic effect on the natural environment ("take all, leave nothing"), Criterion C as a demonstration of how human activity in wartime situations (the harvesting of cypress for use by the military) can have a profound cultural effect at the expense of the environment and Criterion D for its potential to yield information as to the changing attitudes of man towards the natural environment.

The late 1950s hunting cabins (FK1-31 (8CR00983), FK1-18 (8CR00987), FK3-4 (8CR00988), FK1-30 (8CR00989) and FK1-16 (8CR00997)) were originally determined ineligible (NS) due to their construction date; they had not reached 50 years of age at the time of the survey. However, these resources may now be considered significant in association with the Gladesmen and their traditional hunting and fishing practices as well as their use of the abandoned tram beds to access additional land and build cabins. These structures need to be re-assessed for their significance on the National Register.

The Copeland Florida Division of Forestry Resource Group (8CR1102) is comprised of the following structures: the Copeland Fire Tower (8CR01099), ranger residence (8CR01100) and pump house/storage shed (8CR01101). While each of the three structures lack the architectural context to be considered individually eligible for the National Register, as a group, they are potentially significant as an assemblage of remaining Florida forestry structures. The shop/office building (8CR01098) is a standard metal building with no historic context or associated structures and therefore is not significant.

During the span of this planning period, the hunting camps and cabins will be evaluated for their condition and for the measures needed where preservation is the goal. The historic tram will be protected from ground disturbing activities and from activities that may cause unnatural erosion. Buildings associated with preserve operations will be maintained as needed. The table below indicates which treatments (i.e., restoration, rehabilitation, stabilization, or preservation) will be applied in general to significant historic buildings, structures and landscapes. Most buildings and structures in parks which are being used for everyday park functions such as shops, offices and picnic areas would be designated for rehabilitation treatments which are much less rigid or formal. A recommended treatment will be indicated in the table for each site listed.

An informal natural history collection is stored in the ranger station on shelves occupying about 40 cubic feet. This collection includes various animal bones, snake skins, turtle shells and specimens stored in alcohol.

An herbarium collection was started at Fakahatchee Strand Preserve State Park in 1997 and specimens are still being added and catalogued, with the ultimate goal to maintain an inventory of specimens accessible to researchers. Being the range limit for many species to both the north and south lends itself to unique adaptive pressures. As such, it is vital to preserve specimens for genetic and morphological research. The herbarium cabinet is stored in an air-conditioned ranger station. Currently 397 vascular plant species are represented by a voucher specimen at the preserve and at DRP's District

4 Herbarium. These specimens are in various stages of the voucher process from pressed to mounted and labeled.

Archaeological artifacts include railroad spikes collected from Janes Scenic Drive after road work and are stored in plastic bags to reduce exposure to moisture. The railroad spikes were used during the logging of bald cypress in Fakahatchee Strand during the 1940s until 1954.

Over 600 slides are stored in a cabinet in the ranger station. Some of the slides date back to the early 1980s. Many of the slides have been scanned to digital images for archival storage.

A collection of aerial photographs from 1940, 1953, 1963, 1973 and 1984 are stored in a cabinet at the ranger station. The 1940 and 1953 black and white aerial photographs have been scanned and digitized for archival storage.

The natural history collection, herbarium collection, archaeological artifacts, slides and aerial photographs are currently stored in the air-conditioned ranger station. These collections are in good condition.

Criteria do not exist, which helps with the evaluation of the significance of collections or archival material. Usually, significance of a collection is based on what or who it may represent. For instance, a collection of furniture from a single family and a particular era in connection with a significant historic site would be considered highly significant. Likewise, a high-quality collection of artifacts from a significant archaeological site would be of important significance. A large herbarium collected from a specific preserve over many decades could be valuable to resource management efforts. Archival records are most significant as a research source. Any records depicting critical events in the preserve's history, including construction and resource management efforts, would all be significant.

The herbarium collection and the informal natural history collection provide a representation of the flora and fauna found in the preserve. These collections are important for research purposes, as well as for interpretation of the rich biodiversity that distinguishes this unit. The herbarium is particularly valuable as a comprehensive record of plant species that occur, or have occurred, in the preserve. The archaeological collection is more general in scope and consists of randomly collected artifacts representing aspects of the history of land use in the area encompassed by the preserve. Finally, the collections of slides and aerial photographs are important as records of the past appearance of the preserve's resources. Slides can provide a photographic record of the preserve's natural and altered groundcover and landscape aspect, providing insight into cultural history. Likewise, aerial photographs provide a record of historic landscape features, particularly about past natural resource characteristics. These photographic collections are often valuable in guiding present-day management of resources and are also valuable for both research and interpretation.

With assistance from DRP's Bureau of Natural and Cultural Resources, a plan will be prepared to transfer the collection of Archaeological artifacts to DHR's Bureau of Archaeological Research, where they will be curated and cataloged. The preserve will also prepare a Scope of Collections Statement to determine whether some artifacts should be returned to the preserve on loan for display or interpretation.

Other collections will continue to be maintained in the air-conditioned ranger station. Control of insect pests and climate are the main management measures undertaken. Periodic collection management assessments are needed to evaluate the success of management measures and changing inventory.

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
Daniels Point (Downs Place) 8CR00019	Pre-Columbian, 19th century American, 1821–1899, 20th century American, 1900–present, Glades I, 1000 B.C.E.–750 C.E., Glades II, 750–1200 C.E., Prehistoric, Spanish–1st Period, 1513–1763	Archaeological Site	NR	F	P
Fakahatchee River 8CR00020	Pre-Columbian, Prehistoric	Archaeological Site	NE	P	P
Youman's Place Shell Camp 8CR00068	Pre-Columbian, Glades, 1000 B.C.E.–1700 C.E., Glades II, A.D. 750–1200, Glades III, 1000–1700 C.E.	Archaeological Site	NE	P	P
Big Cypress 2 8CR00069	Pre-Columbian, Prehistoric	Archaeological Site	NE	?	P
Big Cypress 11 8CR00071	Pre-Columbian, Glades, 1000 B.C.E.– 1700 C.E., Prehistoric	Archaeological Site	NS	P	P
Big Cypress 10 8CR00075	Pre-Columbian, Indeterminate	Archaeological Site	NE	?	P
Big Cypress 3 8CR00084	Pre-Columbian, Prehistoric	Archaeological Site	NE	?	P
Oak Ring 8CR00186	Pre-Columbian, Glades II, 750–1200 C.E., Glades III, A.D. 1000–1700	Archaeological Site	NE	?	P
Remuda Ranch South 2 8CR00192	Prehistoric with pottery	Archaeological Site	NE	?	P
Royal Palm Lake 8CR00544	Formative, Indeterminate, Prehistoric	Archaeological Site	NR	F	P
Miles City Prairie 8CR00732	Prehistoric, Glades Unspecified	Archaeological Site	NE	G	P
West Main Tram 8CR00733	Prehistoric, Glades Unspecified	Archaeological Site	NS	P	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
South Twelve Mile Prairie 8CR00734	Prehistoric, Glades Unspecified	Archaeological Site	NE	F	P
East Lake 8CR00735	Prehistoric, Glades Unspecified	Archaeological Site	NE	G	P
Justin-Toby Mound 8CR00743	Glades II, 750–1200 C.E.	Archaeological Site	NE	G	P
Simarouba 8CR00744	Prehistoric, Unspecified	Archaeological Site	NS	?	P
Five Oaks 8CR00745	Prehistoric, Unspecified	Archaeological Site	NE	?	P
Dutoit 8CR00746	Prehistoric, Unspecified	Archaeological Site	NE	?	P
POTI #1 8CR00852	Glades, 1000 B.C.E.–1700 C.E., Glades I, 1000 B.C.E.–750 C.E., Prehistoric	Archaeological Site	NR	?	P
No Name 8CR00924	Prehistoric	Archaeological Site	NS	?	P
US-41 8CR00927	20th century American, 1900–present	Resource Group – Linear Resource	NR	G	P
Tamiami Canal 8CR00928	20th century American, 1900–present	Resource Group – Linear Resource	NR	G	P
Picayune Strand Tram Lines 8CR00977	20th century American, 1900–present	Historic Landscape	NE	G	P
FK1-31 8CR00983	20th century American, 1900–present	Historic Structure	NS	?	P
FK1-18 8CR00987	20th century American, 1900–present	Historic Structure	NS	P	P
FK3-4 8CR00988	20th century American, 1900–present	Historic Structure	NS	P	R
FK1-30 8CR00989	20th century American, 1900–present	Historic Structure	NS	?	P
FK3-1 8CR00990	Prehistoric, Unspecified	Archaeological Site	NE	?	P
FK1-4 8CR00992	20th century American, 1900- present	Historic Structure	NS	?	P
FK1-8 8CR00994	20th century American, 1900–present	Historic Structure	NS	P	P
FK1-15 8CR00996	20th century American, 1900–present	Archaeological Site	NS	P	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
FK1-16 8CR00997	20th century American, 1900–present	Historic Structure	NS	P	P
FK1-29 8CR00999	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-1 8CR01000	20th century American, 1900–present	Archaeological Site	NS	?	P
FK2-2 8CR01001	20th century American, 1900–present	Archaeological Site	NS	?	P
FK2-3 8CR01002	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-8 8CR01004	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-9 8CR01005	20th century American, 1900-present	Archaeological Site	NS	?	P
FK2-10 8CR01006	20th century American, 1900–present	Archaeological Site	NS	?	P
FK2-11 8CR01007	20th century American, 1900–Present	Archaeological Site	NS	P	P
FK2-12 8CR01008	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-18 8CR01010	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-19 8CR01011	20th century American, 1900–present	Archaeological Site	NS	?	P
FK3-2 8CR01012	20th century American, 1900–present	Archaeological Site	NS	?	P
FK3-3 8CR01013	20th century American, 1900–present	Historic Structure	NS	P	R
FK3-5 8CR01014	20th century American, 1900–present	Archaeological Site	NS	?	P
FK3-8 8CR01015	20th century American, 1900–present	Archaeological Site	NS	?	P
FK1-33 /Lee Tidewater Fakahatchee Logging Tram System 8CR01016	20th century American, 1900–present	Resource Group – Linear Resource	NR	F	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
FK3-7 8CR01017	20th century American, 1900–present	Archaeological Site	NS	P	P
FK1-6 8CR01018	Prehistoric	Archaeological Site	NE	?	P
FK1-9 8CR01019	Prehistoric	Archaeological Site	NE	?	P
FK1-10 8CR01020	Prehistoric	Archaeological Site	NE	?	P
FK1-13 8CR01021	Prehistoric	Archaeological Site	NE	?	P
FK1-14 8CR01022	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NE	?	P
FK1-19 8CR01023	Prehistoric	Archaeological Site	NE	?	P
FK1-20 8CR01024	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NE	?	P
FK1-22 8CR01025	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NR	F	P
FK1-23 8CR01026	Prehistoric	Archaeological Site	NE	?	P
FK1-26 8CR01027	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NR	F	P
FK1-27 8CR01028	Prehistoric	Archaeological Site	NE	?	P
FK1-28 8CR01029	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NE	?	P
FK1-32 8CR01030	Prehistoric	Archaeological Site	NE	?	P
FK2-7 8CR01031	Prehistoric	Archaeological Site	NE	?	P
FK2-13 8CR01032	Prehistoric	Archaeological Site	NE	?	P
FK2-15 8CR01033	Prehistoric	Archaeological Site	NE	?	P
FK2-16 8CR01034	Prehistoric	Archaeological Site	NE	?	P
FK2-17 8CR01035	Prehistoric	Archaeological Site	NE	?	P
FK1-17 8CR01036	Glades, 1000 B.C.E.–1700 C.E.	Archaeological Site	NE	?	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
FK2-21 8CR01037	20th century American, 1900–present	Archaeological Site	NS	P	P
FK2-22 8CR01038	20th century American, 1900–present	Archaeological Site	NS	?	P
FK3-6 8CR01039	20th century American, 1900–present	Archaeological Site	NS	?	P
FK2-20 8CR01040	Prehistoric	Archaeological Site	NE	?	P
FSP18 8CR01041	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP17 8CR01042	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP1 8CR01043	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP2 8CR01044	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP3 8CR01045	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP4 8CR01046	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP5 8CR01047	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP6 8CR01048	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP7 8CR01049	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP8 8CR01050	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP9 8CR01051	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP10 8CR01052	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP11 8CR01053	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP12 8CR01054	20th century American, 1900–present	Archaeological Site	NE	?	P

Cultural Sites Listed in the Florida Master Site File					
Site Name and FMSF #	**Culture/Period**	**Description**	**Significance**	**Condition**	**Treatment**
FSP13 8CR01055	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP14 8CR01056	20th century American, 1900–present	Archaeological Site	NE	?	P
FSP15 8CR01057	20th century American, 1900–Present	Archaeological Site	NE	?	P
FSP16 8CR01058	20th century American, 1900–Present	Archaeological Site	NE	?	P
Shop/Office Building 8CR01098	20th century American, 1900–present	Historic Structure	NS	G	RH
Copeland Fire Tower 8CR01099	20th century American, 1900–present	Historic Structure	NR	P	RH
Ranger Residence 1 8CR01100	20th century American, 1900–present	Historic Structure	NR	G	RH
Pump House/Storage Shed 8CR01101	20th century American, 1900–present	Historic Structure	NR	P	RH
Copeland Florida Division of Forestry Structures 8CR01102	20th century American, 1900–present	Resource Group – Historic Structures	NR	F	RH

Significance:
NRL - National Register Listed
NRE - National Register Eligible
LS - Locally Significant
NE - Not Evaluated
NS - Not Significant

Conditions:
G - Good
F - Fair
P – Poor

Recommended Treatment:
RS - Restoration
RH - Rehabilitation
ST - Stabilization
P - Preservation
R – Removal

FAKAHATCHEE STRAND PRESERVE STATE PARK

Existing Land Use and Infrastructural Conditions

BIG CYPRESS REGION

LAND USE COMPONENT

VISITATION

Located within the greater Everglades ecosystem, Fakahatchee Strand Preserve State Park is the largest of Florida's 176 units and contains the largest strand swamp in the world. This 80,179-acre gem has been referred to as the "Amazon of North America," largely for its incredible biodiversity. The preserve is home to over 44 species of orchids, more than any other place in the United States. Visitors come from near and far to attempt to put eyes on the rare ghost orchid. There are approximately 500 ghost orchids in Southwest Florida, 350 of which are located within the strand. The strand swamp is home to rare wildlife as well, including the elusive Florida panther and Everglades mink.

Focus is on nature appreciation enjoyed through hiking, cross country cycling, paddling and wildlife observation. The newly constructed facility that extends across an area of glades marsh to the longstanding Big Cypress Bend Boardwalk was opened in early 2024 and offers the most complete interpretive introduction to the landscape of the preserve and its iconic natural communities. Janes Scenic Drive, which extends north of the community of Copeland, remains the main point of arrival within the interior, offering visitors a window tour of expansive marl prairies and the watery landscape of the strand swamp before arriving at the main hiking trailhead.

Florida Circumnavigational Saltwater Paddling Trail (CT)

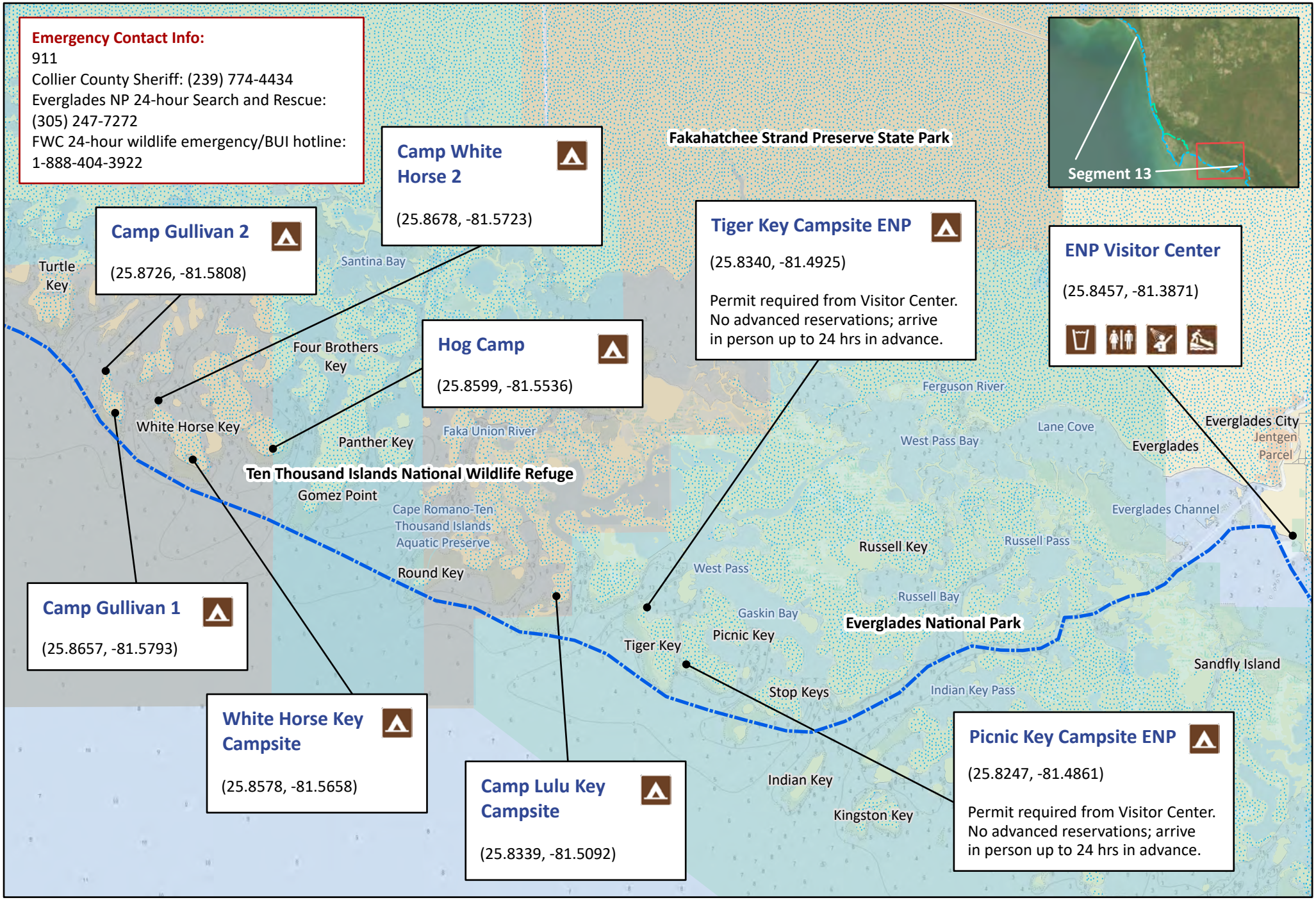
Segment 13, an approximately 68-mile portion of the CT from Lovers Key/Bowtie Island to Everglades City, immerses paddlers in the vast water wilderness of islands, sawgrass, mangroves and forests associated with Everglades National Park. Paddlers desiring to visit Fakahatchee Strand Preserve State Park can choose to navigate off-trail via the Faka Union River and West Pass Bay to access this interiorly situated preserve.

Trends

Visitation at Fakahatchee Strand Preserve State Park is higher during the months of April through November with a noticeable uptick during the cooler months of December through March. The heat, humidity and voracious insects of the southwest Florida summer months correlate to an annual period of lower visitation. Between 2015–2025 the preserve received an average of 78,542 visitors annually.

Economic Impact

Attendance over the 10-year period from FY 2015–16 through FY 2024–25 totaled 785,421 visitors. By DRP estimates, the visitors contributed $87,577,013 in direct economic impact. Visitor spending supported a cumulative total of approximately 1,262 one-year job equivalents over the 10-year period. (DEP 2015-2025).



Florida Circumnavigational Saltwater Paddling Trail

Segment 13: Rookery Bay/Ten Thousand Islands (Map 5 of 5)

Begin: Lovers Key/Bowtie Island
End: Everglades City

Distance: 68 miles (depending on route)
Duration: 4 days

0 0.75 1.5 3 Miles

Disclaimer: This guide is intended as an aid to navigation only. A Global Positioning System (GPS) unit is required and persons are encouraged to supplement these maps with NOAA charts or other maps.
Updated: 12/2022

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EXISTING FACILITIES AND INFRASTRUCTURE

Fakahatchee Strand Preserve is currently accessed from four use areas located along the perimeter of its extensive acreage.

At the southern end of the preserve, on the north side of Tamiami Trail, the earliest and most iconic point of access to the preserve is the Big Cypress Bend Boardwalk. Purchased by Lester Norris in 1957 to spare 640 acres of strand swamp from area loggers, the Big Cypress Bend Boardwalk provides foot access through towering old-growth cypress. For decades, access to the boardwalk was located at a Miccosukee village site with constrained and informal parking with many visitors parking along the Tamiami roadside. In 2022, Hurricane Ian substantially damaged the boardwalk, resulting in a multi-year closure. While repairs were underway, pursuant to previous planning concepts, the access point to the Big Cypress Bend Boardwalk was repositioned approximately one half mile to the east, interfacing with an open glades marsh landscape that affords an expansive viewshed. Until 2026, this new section of boardwalk did not connect to the original strand swamp section. Parking for the boardwalk consists of a semi-pervious concrete grid and architecturally distinctive elevated open-air interpretive pavilion that includes restrooms. The Big Cypress Bend Boardwalk now serves as the preserve visitor center.

The East River Access Area is located on the south side of Tamiami Trail, 5 miles west of State Road 29. The primary function of this site is its paddlecraft launch, which is accompanied by an interpretive kiosk. No other facilities are located at this remote site as it is seasonally inundated.

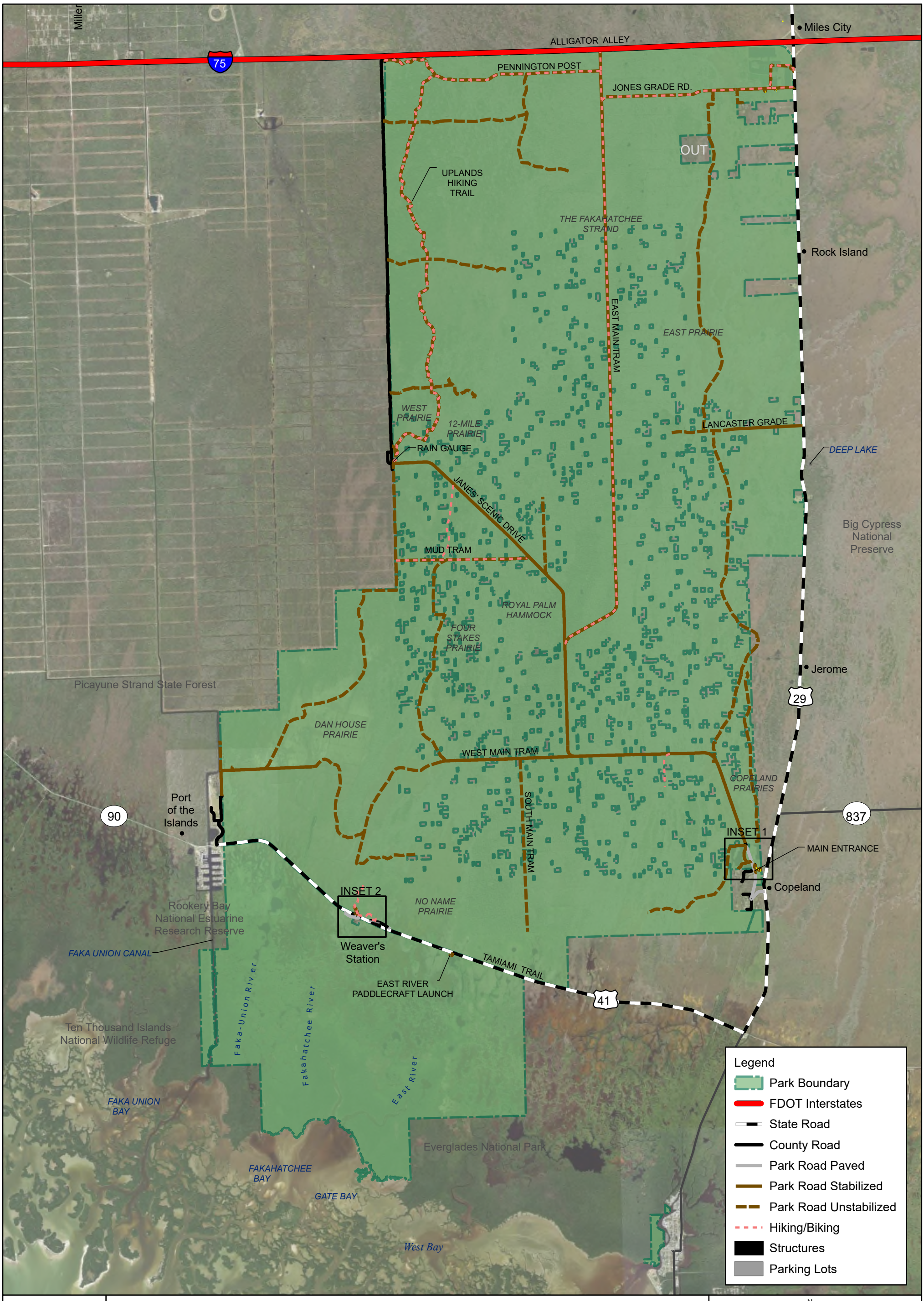
The interior of the preserve is accessed from State Road 29 along the southeast boundary, near the small residential community of Copeland. While this entrance offers restrooms and a small interpretive building, this former limestone quarry site is ruderal in character. For the intended experience, visitors proceed along Janes Scenic Drive, the primary north-south arterial road of the preserve, which traverses extensive natural areas and leads to multiple trailheads for extensive hiking opportunities. Although Janes Scenic Drive extends between the southeastern and northwestern boundaries, a gate at 4.75 miles demarcates the limit of visitor driving and the main preserve trailhead for hiking. The network of trails is associated with former logging trams. East Main Tram, West Main Tram, Uplands Trail and Jones Grade are the primary trails and are designated for shared use among hikers, cyclists and equestrians. As the primary trailhead of the preserve, at the end of Janes Scenic is a trailhead kiosk. Wayfinding directs visitors to this main trailhead within the heart of the preserve.

In the remote northeastern corner of the preserve, a former quarry site, identified as the Jones Grade Use Area, provides basic access for fishing. The borrow lakes are located at the beginning of Jones Grade Road and receive only low use. Hikers, cyclists and equestrians can proceed west along Jones Grade Road then south along the East Main Tram to reach the main trailhead located at the end of Janes Scenic Drive in the central interior, a distance totaling approximately 13 miles.

Facilities Inventory

Big Cypress Bend Boardwalk	
Restroom Facility	1
Boardwalk (length in feet)	2,500
Boardwalk Interpretive Panel	11
Interpretive Pavilion	1
Pavilion and Parking Area Interpretive Panels	14
Pavilion Mobile Kiosks	4

Parking Area (approx. 60 spaces/additional 2–3 spaces for bus/RV parking)	1
East River Paddlecraft Launch	
Paddlecraft Launch	1
Interpretive Kiosk	1
Portable Restroom	1
Copeland Entrance and Day Use Area	
Staff Residence	3
Pole Barn	1
Fire Tower	1
Restrooms	1
Park Office	1
Storage Structures	9
Shop Building	1
Volunteer Campsites	3
Interpretive Kiosks	4
Jones Grade Trailhead and Lakes Use Area	
Interpretive Kiosk	1
Unimproved Parking Area	1
Shared Use Trails	
East Main Tram (approximate mileage)	10.6
West Main Tram (approximate mileage)	2.2
South Main Tram (approximate mileage)	2.9
Uplands Trails (approximate mileage)	8.2
Mud Tram (approximate mileage)	2.3
Jones Grade Trail (approximate mileage)	2.0
East Prairie Trail (approximate mileage)	12.9
Pennington Post Trail (approximate mileage)	4.4
West Prairie Trails (approximate mileage)	7.8



FAKAHATCHEE STRAND PRESERVE STATE PARK

Existing Facilities - Page 1 of 2

N

0 1.5 3 Miles

This graphical representation is provided for informational purposes and should not be considered authoritative for navigational, engineering, legal, and other uses.

HARMON BUILDING
RANGER RESIDENCE
STORAGE SHED
VISITOR CENTER
RESTROOM
FLAMMABLE STORAGE
EQUIPMENT STORAGE
SHOP
EQUIPMENT STORAGE
PARK OFFICE
RANGER RESIDENCE
FIRE TOWER
STORAGE
PUMPHOUSE
RANGER RESIDENCE
STORAGE

Feet
0 500 1,000

INSET 2

BENCH
OBSERVATION
BIG CYPRESS BEND BOARDWALK
SPECIAL USE PERMIT MICCOSUKEE TRIBE
KIOSK
PAVILION
RESTROOMS
VOLUNTEER SITES
FISHING AREA

Legend
- Park Boundary
- State Road
- County Road
- Park Road Paved
- Park Road Stabilized
- Park Road Unstabilized
- Walkways
- Parking Lots
- Structures

Feet
0 500 1,000

FAKAHATCHEE STRAND PRESERVE STATE PARK
Existing Facilities - Page 2 of 2

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FAKAHATCHEE STRAND PRESERVE STATE PARK
Planned Natural Resource Conditions

BIG CYPRESS REGION

HYDROLOGY

Monitoring and Assessment

Objective: Monitor water quantity and quality.

Action:

- Collect baseline data that characterizes the Class III Outstanding Florida Waters of the preserve for future reference.

Baseline water quality data supporting the classification of waters in the preserve as Class III Outstanding Florida Waters should be collected to understand the impact of future changes that may occur in the watershed. Water quality samples have been collected in a swamp lake in the northern portion of Fakahatchee Strand since 1994. The Collier County Pollution Control Department monitors this site four times per year with staff assistance. Collier County's guidance will be requested to expand the water quality monitoring program to ensure protection of the preserve's water quality under the Class III Outstanding Florida Waters designation.

Objective: Assess the preserve's hydrological restoration needs.

Action:

- Continue to monitor surface and ground water levels via staff gauges at culvert crossings and well points at established locations throughout the preserve.

Conduct/obtain an assessment of the preserve's hydrological restoration needs. Monitoring of the preserve's hydrological characteristics began in 1989 with the installation of groundwater level monitoring well points and should continue as impediments to hydrology are rectified in the preserve and on adjacent lands. During the period of record, groundwater level, surface water level, rainfall, pan evaporation, daily weather and flow rates have been measured. These monitoring efforts will continue.

Restoration

Objective: Restore natural hydrological conditions and functions to approximately 3,000 combined acres of marl prairie and strand swamp natural community(s).

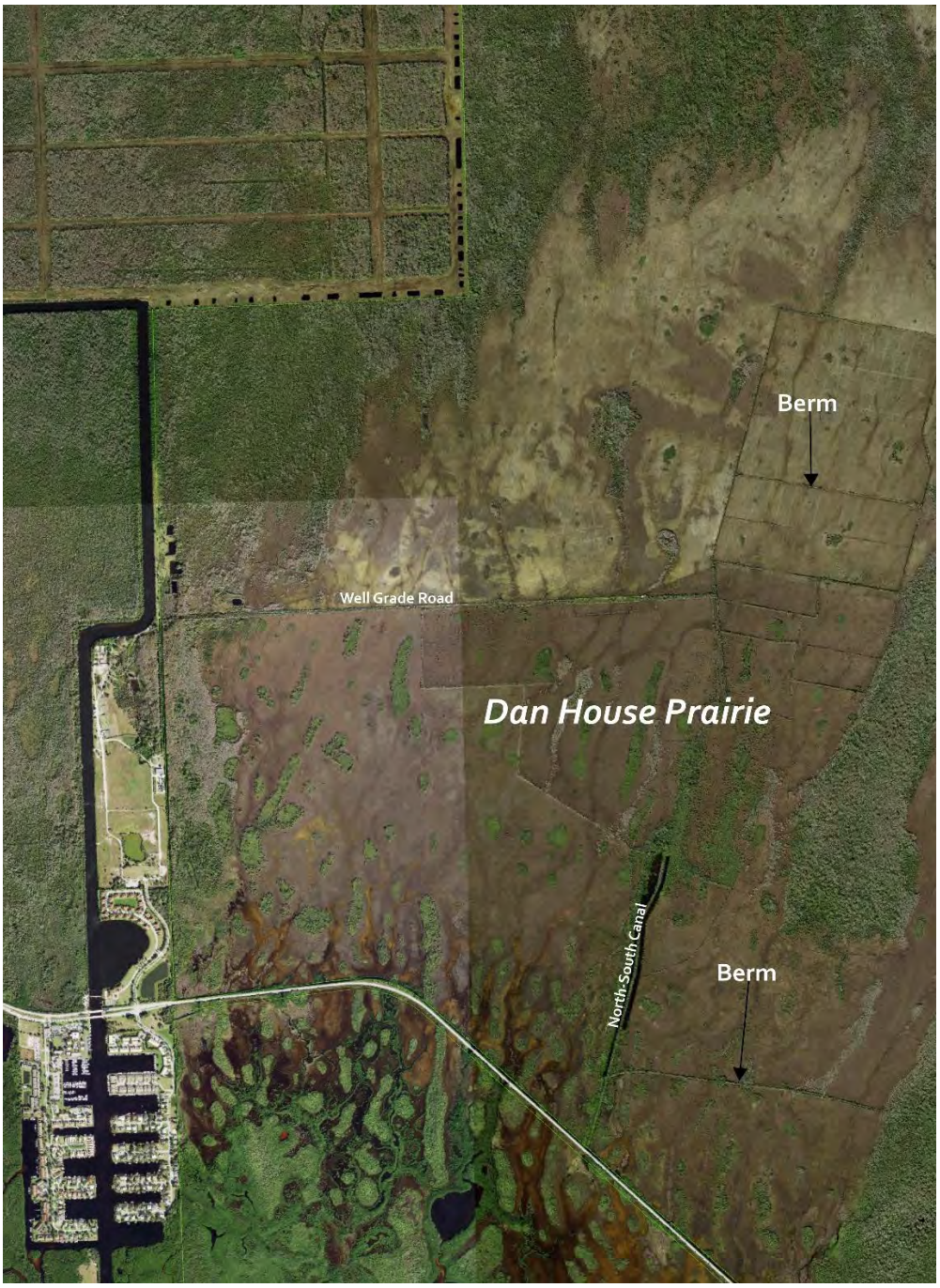
Action:

- Remove former agricultural berms that impede sheet flow within Dan House Prairie.

Phase two of the PSRP began in spring 2010 and plugged the stair step canal that intercepted and diverted sheet flow away from Dan House Prairie resulting in a reduced hydroperiod for the marl prairie. Plugging of the Stair Step Canal began in the north at the previously plugged Prairie Canal southern terminus in 2018 was finished in 2021 at the Faka Union Canal to the south and west. Within Dan House Prairie, berms and ditches were constructed to exclude seasonal floodwaters from the tomato fields originally planted in the 1930s to 1950s that are located in the vicinity of Well Grade Road and have disrupted sheet flow and reduced the hydroperiod to approximately 1,000 acres on the east side of Dan House Prairie. In the previous management plan, a project was identified to level a total of 52,500 feet of berm by returning the soil to the adjacent drainage ditches. Leveling of the

berms will restore historic sheet flow and hydroperiod within the marl prairie community. Removal of the Dan House berms was pursued through a feasibility study, design and permitting in a couple of phases. In the spring of 2025, construction Phase one was conducted through a U.S. Fish and Wildlife Service (USFWS) North American Wetlands Conservation Act grant obtained and managed by Ducks Unlimited. The first phase was the removal of 38,438 feet of berm and ditch filling east of Well Grade Road. The next construction phase has permitting underway with a goal of smoothing an additional 14,045 feet of berms south of Well Grade Road and adding conveyance through Well Grade Road by adding or replacing undersize culverts.

Another planned phase would include the berm, nearly 1-mile-long extending east from the roughly one-mile-long north-south-trending canal in southern Dan House Prairie, to intercept sheet flow heading into the southeastern portion of the prairie. To restore approximately 400 acres within this section of marl prairie and strand swamp communities to near historic hydroperiods, the entire length of the berm should be pushed into the adjacent ditch. At the same time, up to three plugs should be installed in the north-south trending canal. Elements of these restoration concepts are depicted in the image below.



A third area of berms is located in the southeastern portion of the preserve near the community of Copeland. Leveling of approximately 5,000 feet of berms should be considered to restore near historic water flow and hydroperiod and reduce conduits for saltwater intrusion. The subject area for this restoration concept is depicted in the image below.

A 1.7-mile-long road running west-to-east from the Faka Union Canal into the center of Dan House Prairie provides maintenance access to three pumps that provide drinking water for the Port of the Islands development adjacent to the west side of the preserve. Known as Well Grade Road, it intercepts sheet flow going southward into marl prairie, strand swamp, dome swamp and wet flatwoods communities. As part of the Dan House Prairie restoration project, 18 culverts need to be added under this road to convey the increased sheet flow anticipated with the completion of Phase two of the PSRP. This will enhance the hydrologic benefits of this project while preserving Well Grade Road which is needed for both well maintenance and resource management access. The hydrological conditions of 1,200 acres of natural communities south of this road will be restored to a condition that approaches historic hydroperiods when combined with berm removal and ditch filling.

NATURAL COMMUNITIES

Prescribed Fire

Objective: Within 10 years, have 23,000 acres maintained within the optimum fire return interval.

Actions:

- Develop/update annual prescribed fire plan.
- Conduct prescribed fire on 6,800–18,300 acres annually.

The prescribed fire management table below lists all fire-dependent natural communities found within the preserve, their associated acreage and optimal fire return interval and the annual average target for acres to be burned.

Prescribed Fire Management		
Natural Community	**Approximate Acres**	**Optimal Fire Return Interval (Years)**
Mesic Flatwoods	166	1–3
Marl Prairie	13,738	1–3
Wet Flatwoods	5,251	2–4
Strand Swamp	600	1–3
Estuarine Salt Marsh	2,988	3–5
Dome Swamp	163	1–3
Annual Target Acreage	6,800–18,300	

The goal of prescribed burning is to maintain fire-adapted ecosystems by burning at the correct burn interval. For instance, marl prairies require frequent fires to prevent the encroachment of pine and cypress seedlings, while edge effect fires along the perimeter of strand swamps help control understory shrubs like wax myrtle. After each prescribed burn, resource management objectives are assessed immediately, followed by a post-growing season review to ensure that objectives are achieved.

Apart from hydrological restoration, the most important management need at Fakahatchee Strand Preserve State Park is prescribed burning. It is the cumulative influence of fire, water and topography that shapes natural communities and determines ecosystem function in this region. The extensive marl prairies are, paradoxically, both flooded wetlands and pyric communities depending on the time of the year. The cured grasses and forbs that cover them burn readily during the dry season and regenerate quickly. The roads and canals installed in the 20th century impede the movement of fires that once traveled long distances. On wet prairies where fires have been excluded, young pine and cypress trees can be observed in the early stages of transforming open terrain into a forested landscape.

There are six types of fire-adapted natural communities in the preserve, and they are, in decreasing acreage, marl prairie, wet flatwoods, estuarine salt marsh, strand swamp, mesic flatwoods and dome swamp. The elongated juxtaposition of strand swamps within marl prairie classifies them as a fire dependent community because the natural process of fire functions similar to that of fire in a dome swamp.

Twenty-nine of the 30 management zones include some fire-type acres. Fire breaks are located predominately along roads, canals or rivers. The interior fire breaks consist of mowed or lightly tilled lines, which have much less impact on the hydrological sheet flow and are less likely to facilitate invasive plant recruitment than plowed lines. Fire preparation work includes maintaining mowed lines during drier conditions to allow tractor access as well as vegetation clearing along the boundary of the burn zones.

Grasses and sedges constitute the principal groundcover in these six communities, providing fine fuel that burns easily when ignited. However, since the preserve consists largely of wetlands, fire is not feasible when surface water is present. November through June is the most conducive time to burn, except when conditions become so dry that authorizations to burn cannot be secured from the Florida Forest Service. Furthermore, burnable tracts are so large that helicopter assistance or assistance from outside agencies is essential to success. Having these assets available at the preferred time makes prescribed burning a challenge.

The burn program at Fakahatchee Strand Preserve State Park benefits greatly from the collaboration with burn crews at nearby Big Cypress National Preserve, Florida Panther National Wildlife Refuge,

SFWMD, Conservation Collier, Naples Botanical Garden and other state parks including DRP's District 4 burn team. Additionally, the Ochopee Fire Control District is available for structure protection and has a large vehicle for a water source during fires.

Challenges associated with burning at Fakahatchee Strand Preserve State Park include smoke management due to the proximity of three highways along the preserve boundaries, shifting winds with afternoon sea breezes, the presence of private inholdings and water levels that make vehicular travel around the burn zones difficult. Specifically related to smoke management, gaining understanding and acceptance from adjacent landowners in the nearby communities of Copeland, Lee Cypress, Jerome, Rock Island, Port of the Islands and Orchid Cove has proven to be challenging.

Several species of imperiled animals found in the preserve require natural communities maintained by frequent fire. These fire-dependent animals include Florida panther, Florida black bear, Big Cypress fox squirrel, Everglades snail kite and Florida sandhill crane. Also, many wading birds designated as species of special concern or endangered are frequently observed in recently burned areas of marl prairie and estuarine tidal marsh, including white ibis and wood stork. Imperiled plants, such as Small's flax (*Linum carteri* var. *smallii*) endemic to pinelands of south Florida, as well as Fakahatchee burmannia (*Burmannia flava*) and snowy orchid (*Platanthera nivea*), both found on marl prairie, also require fire at frequent intervals.

Restoration

Objective: Develop a plan for borrow lakes restoration that identifies priorities, feasibility and partnership/funding opportunities, to enhance fish and wildlife habitat.

Actions:

- Improve aquatic habitats within the borrow lakes.
- Create wading bird rookery sites within the borrow lakes.

The two borrow areas in the preserve are of lower habitat quality than adjacent natural communities. To improve the lakes and adjacent uplands for fish, wildlife and passive recreation, a restoration plan needs to be developed outlining the desired outcome; documenting the existing conditions; identifying potential restoration projects; evaluating the feasibility of different projects; outlining a budget for each project and phase; prioritizing the project schedule; and establishing a list of potential partnership and funding opportunities. In general, habitat improvements associated with the borrow lakes (former lime rock quarries) should include the establishment of a littoral shelf with bathymetry that supports emergent aquatic vegetation. The most feasible means may entail perimeter excavation, with spoil material then used to create wading bird rookery islands discussed below. A starting point for researching habitat improvements should be communication with DEP's Division of Water Resource Management.

The first area is referred to as "Jones Grade," a 400-acre site formerly used as borrow for the construction of I-75 during the late 1980s. Thereafter, it was transferred to DEP for management. Prior to the transfer, construction debris and invasive plants such as melaleuca were removed by scraping the area clean. Since then, the 100 acres that is not open water has remained relatively barren with a few invasives reappearing, requiring periodic survey and treatment. Water fills the 15- to 20-foot-deep pits which support both native and invasive fish species.

The second is the 200 acres formerly owned by the Harmon Brothers Rock Company that was acquired in 2004 near the main entrance at the beginning of Janes Scenic Drive. Some contouring of the shoreline was completed as a permit requirement for the mining operations; however, additional improvements are necessary to fully convert these former lime rock quarries to functional lacustrine habitat.

During the development of the restoration plan, the construction of one or more potential wading bird rookery islands should be considered. Such habitat would involve creating an island with fill material, grading the island shoreline to an appropriate bathymetry and vegetating the island area with appropriate plant species. By following island creation research developed by White et al (2012), DRP can choose a design that will benefit the nesting wading bird populations within the preserve. Based on previous research, it has been determined that a productive rookery island attractive to wading birds would need to be designed according to the following guidelines:

- At least 2 hectares in size.
- Include a shallow water littoral shelf.
- Minimum of 50 meters from shore.
- Depth of surrounding waters should be 0.5 meters or more during the breeding season.
- Include large cypress and maple, as well as smaller willow or holly to encourage nesting sites.

Improvement

Objective: Conduct natural community/habitat improvement activities on approximately 500 acres of wet flatwoods, marl prairie and small strand swamps.

Action:

- Reduce cabbage palm density.

This site is adjacent to the former Prairie Canal that previously drained the area but was plugged in 2006. The hydroperiods of the associated wet flatwoods, marl prairie and strand swamps were greatly reduced during the approximately 36 years that the canal was operational. This resulted in increased fire intensity and consumption of the upper muck layer in the region. Consequently, conditions favoring the recruitment and survival of cabbage palms allowed this species to become dominant in some of the nearby marl prairies and more commonly in the wet flatwoods communities, especially within 0.5 miles east of the Prairie Canal. Cabbage palms tolerate fire very well and are responsible for carrying fire into the pine canopy where it causes higher pine mortality. The burning fronds also produce firebrands, which are airborne burning materials that drift outside of the intended burn zone, thereby presenting containment challenges. The increased density of cabbage palms also creates more shade in the marl prairie and wet flatwoods communities, causing a decrease in the herbaceous layer.

The desired herbaceous component of the marl prairie at the restoration site should ideally support herbivores and the wet flatwoods community should support a high level of plant species diversity. These natural communities are home to white-tailed deer, wild turkey, Big Cypress fox squirrel, Florida panther, Florida black bear and eastern diamondback rattlesnake.

Selective removal of cabbage palms can be accomplished by the application of herbicide directly to the terminal bud. Trees should be left standing to provide habitat for cavity nesters and to prevent hot spots during fires. This also prevents the need for heavy equipment, which can cause ground disturbance and introduce invasive species such as cogon grass.

IMPERILED SPECIES

Inventory

Objective: Update baseline imperiled species occurrence inventory lists for plants and animals.

Action:

- Continue to inventory the preserve to update imperiled species inventory lists.

Ongoing surveying of imperiled plant and animal species is needed at Fakahatchee Strand Preserve State Park to ensure that all imperiled species are documented. DRP will enlist the assistance of academic researchers and staff from other agencies during development of species occurrence inventory lists, especially where necessary for certain taxonomic groups.

Fauna

Objective: Continue existing monitoring protocols for 12 selected imperiled animal species.

Action:

- Follow established protocols for monitoring 12 selected imperiled animal species.

Since 1996, monthly data has been collected at a night roost on the East River for four imperiled species of wading birds. Monitoring protocol developed by National Audubon Society staff for other colonial wading bird sites in Collier County is used, which involves the enumeration of wading birds by species as they descend to the night roost beginning from one hour before sunset to a few minutes afterwards. Imperiled species utilizing the roost include little blue heron, snowy egret, great egret, tricolored heron, glossy ibis and white ibis. This same site serves as a nesting rookery for up to 250 pairs of tricolored herons as well as a few nesting pairs of snowy egrets and white ibis.

Besides wading birds, eight other imperiled vertebrates are monitored in the preserve.

Weekly American alligator counts along Janes Scenic Drive are conducted in conjunction with hydrological data collection. Protocol includes recording date, time, location and estimated size from a vehicle on the roadway. Data will be analyzed for trends in alligator abundance within size classes. Monitoring is typically performed by the same volunteer or a staff member throughout the year.

Big Cypress fox squirrels have been studied since 2007 via radio telemetry by National Park Service (NPS) biologists on adjacent Big Cypress National Preserve. DRP staff at Fakahatchee Strand Preserve State Park propose to adopt NPS protocols to inventory and monitor for fox squirrels. Staff would initially partner with NPS to conduct an annual two-to-three-day survey for the presence of fox squirrels. This will be important baseline data to measure the response of the population to hydrological restoration efforts and natural community improvement and maintenance.

The Everglades mink was studied during 2010 by biologists with the Conservancy of Southwest Florida. Video surveillance and limited radio telemetry are being employed to monitor the mink population within the preserve. Opportunistic radio telemetry of an injured Everglades mink taken to the Conservancy of Southwest Florida and returned to the preserve on March 31, 2010, yielded new data on movements in the wild. Preserve staff will continue to contribute opportunistic observations. As aforementioned, FWC is currently conducting a research project on the Everglades mink using Fakahatchee as their primary study area.

Studies of the Florida panther have been conducted in South Florida since the 1970s. FWC is the lead agency in management of the Florida panther population. Panthers have been captured and fitted with radio collars within and adjacent to Fakahatchee Strand Preserve State Park. Preserve staff have assisted with this project and will continue to assist as appropriate.

The Florida black bear is no longer listed as state threatened, however bears are an important component of the Fakahatchee Strand ecosystem. FWC conducted a three-year statewide assessment of road impacts on Florida black bears from 2001 through 2003. This study included Fakahatchee Strand Preserve State Park, resulting in a population estimate of 500 to 700 bears in Southwest Florida during that time. Preserve staff continue to document black bear observations in an effort to ensure inventory is up to date.

The American crocodile has been documented in waterways south of U.S. Highway 41 which are most often traveled by preserve staff. Being that it has been more than 12 years since the last formal survey was done, and to understand more about their distribution and abundance within the preserve, reinstating surveys of American crocodile is proposed. The East River and the mouth of the Fakahatchee River will be surveyed annually for crocodiles during January to March. A monitoring protocol may be adopted from one currently in use by DEP's Rookery Bay National Estuarine Research Reserve, involving night surveying that uses a spotlight to detect eye shine. However, if this procedure proves ineffective, an early morning survey after cool nights in January and February may be attempted.

The eastern black rail is listed as federally threatened. Breeding bird surveys and passive acoustic surveys will be conducted annually in marl prairies to monitor eastern black rail populations.

The final species recommended for detailed survey and monitoring is the red-cockaded woodpecker. This species historically occurred in the preserve but has not been observed in the preserve for decades. Preserve staff will collaborate with FWC and NPS biological staff to determine the appropriate monitoring protocol for the preserve. Monitoring will likely involve an annual survey to determine the presence of the species and whether additional management actions are necessary.

Objective: Evaluate the impacts of recreational use on the East River wading bird roost/nesting rookery and take corrective measures for any negative impacts.

Action:

- Determine impacts on recreational use on the East River wading bird roost/nesting rookery.
- Implement corrective measures as necessary to protect imperiled species.

Monitoring is essential to measure deleterious effects of recreational use on imperiled species utilizing the East River roost and rookery. Negative effects will require modification of recreational use such as exclusion zones and designation of canoe routes past the roost/rookery. Signs designating protected areas and reduced carrying capacities may also be required. Seasonal constraints on recreational use may be necessary.

Objective: Continue to improve habitat for red-cockaded woodpecker.

Actions:

- Continue resource management measures such as prescribed burning and selective removal of cabbage palms to improve habitat conditions within mesic and wet flatwoods pinelands.
- Investigate opportunities for the reintroduction of red-cockaded woodpeckers to the preserve.

Collier County has proposed translocation of red-cockaded woodpeckers to the preserve from nearby county lands. Potential opportunity sites within the preserve will be improved and best management practices will be considered prior to reintroduction by FWC and USFWS.

Flora

Objective: Monitor and document 86 selected imperiled plant species in the preserve.

Action:

- Continue systematic annual surveys of imperiled plant species.

Eighty-six plant species are included the Imperiled Species Inventory table. For those ranked as tier 2, the protocol for monitoring has involved a systematic annual survey that, over the years, has sampled the strand swamp and slough communities along a transect from north to south. In addition, these species are monitored along the route of weekly swamp walks conducted from October through March. Survey parties gather on eight to 10 additional occasions annually to inventory new locations and monitor a few known sites. These efforts involve the work of knowledgeable volunteers under the direct supervision of the preserve biologist. The protocol typically involves an intensive search along transects defined by the course of the slough being surveyed. The size of the survey party typically allows a transect 50 feet wide for the length of the slough. Observations for a suite of species are recorded, including bromeliads, ferns, peperomias and orchids. Most records include abundance, plant height, host tree species, water depth, reproductive status and robustness.

Of the 86 plant species, one is ranked as tier 4 – the ghost orchid. Monitoring of the ghost orchid involves collecting data on host tree species, including diameter at breast height of the host tree, height above ground, current water depth, estimate of mean annual high water, number of alive and dead roots, length of the longest root, number of active growing tips, side of tree to nearest cardinal direction, number of new and old spikes, buds and flowers, number of seed pods and overall health. When a ghost orchid is located, the entire population within a 100-foot radius is surveyed. These populations are monitored at least annually and demographic characteristics are recorded.

Two of the 86 plant species, giant airplant and cowhorn orchid, are tier 5. In March 2008, giant airplants in the northern portion of the preserve were found to be infested with Mexican bromeliad weevils. An inventory of giant airplants along 7 miles of Janes Scenic Drive was completed in January 2009. More than 500 plants were located and continue to be monitored annually during the winter months for damage caused by the Mexican bromeliad weevil. Data collected on each plant includes GPS location, height, tree species, side of tree, general size, color, condition, bloom spike and size. This dataset is gathered largely by volunteer help and should provide an early warning of areas with weevil damage. This quantitative data can also be used as a baseline for comparison with future conditions if the weevil continues to spread and reduce bromeliad populations within the preserve. It has become clear from this data that the giant airplant is undergoing a catastrophic decline from 870 to 140 plants in the 84 acres surveyed along Janes Scenic Drive. A collaborative project with the Naples Botanical Garden and Marie Selby Botanical Garden to rescue some of the remaining genetic diversity within the giant airplant population at the preserve was initiated in March 2014. Permits were acquired to temporarily remove about 150 giant airplants from the preserve and safeguard plants from the Mexican bromeliad weevil. Each year, any giant airplant that produces a bloom spike will be returned to the same tree to allow the seeds to spread back into the strand. This project should allow the giant airplant to persist another five to 10 years at Fakahatchee Strand Preserve State Park, although in considerably lower numbers than

recent data would suggest. It may be necessary to propagate giant airplants from seeds to ensure genetic diversity of this species does not decline.

The cowhorn orchid is also tier 5 and the subject of a population augmentation project in collaboration with the Atlanta Botanical Garden, with a DRP research/collecting Permit. Only 25 cowhorn orchids are known to occur in Fakahatchee Strand. Attempts to cross pollinate several cowhorn orchids within Fakahatchee Strand were made in 2007 and 2008, resulting in the production of one seed pod in April 2009. The seed pod was sent to Atlanta Botanical Garden for in vitro seed germination, which resulted in thousands of seedlings germinated in June 2009. On June 9, 2009, the seed pod was returned above the parent plant to allow the remaining seeds to disperse by the wind into the surrounding strand swamp and slough communities. Additional crosspollination attempts were conducted in April 2009 producing 14 seed pods. During two days in April 2010, six of these pods were removed for in vitro seed germination at Atlanta Botanical Garden's tissue culture lab. These six seed pods were returned above the parent plants to allow potential recruitment of seedlings into Fakahatchee Strand.

This project has returned hundreds of cowhorn orchid seedlings of known genetic origin to Fakahatchee Strand. In addition, the project documents survival rates and has improved knowledge of the role of mychorrizal fungi in facilitating recruitment of seedlings. In May 2013, over 600 young cowhorn orchids were placed on trees in several sites within Fakahatchee Strand. Every April, a significant sample of these plants is monitored for survival rates. More than 80 percent demonstrated survival during the April 2013 sampling period. Two hundred additional young cowhorn orchids were planted in May 2014 and 2015. This will hopefully allow the establishment of over 1,000 young cowhorn orchids back into Fakahatchee Strand. Understanding orchid propagation is slow, taking almost a decade for many of them to reach reproductive size, and additional years for seedlings to develop, continuing to monitor for survival and eventual blooming of this species is ongoing and will provide necessary information to help inform future wild orchid restoration attempts.

Objective: Monitor the status of imperiled plant species that occur along the overgrown trams.

Action:

- Survey overgrown trams in 10-year intervals to record changes in imperiled plant abundance and distribution.

Overgrown trams were surveyed for 81 imperiled plant species from September 1996 through March 2004. Of the 81 imperiled plant species then found in the preserve, 43 were documented along the 140 overgrown trams. Many of these plants are tropical and are therefore vulnerable to frost or drought events. Continued surveying of these 43 imperiled plant species known to occur on the overgrown trams will provide the data necessary to determine any population changes as well as changes in species composition.

INVASIVE SPECIES

Invasive Plant Treatment

Objective: Create a long-term invasive plant management plan for the preserve.

Actions:

- Identify the major vectors and pathways for invasive plants at the preserve and reduce incoming propagules where possible.

- Regularly update surveys to reflect accurate infestation levels of each management zone.
- Develop an early detection rapid response protocol for new infestations.
- Develop a species-specific action plan for each management zone with a prioritization framework.
- Evaluate and update plan on an annual basis and adapt to changing conditions.

Objective: Monitor and maintain 1,989 acres of habitat already in maintenance condition as needed.

Actions:
- Survey all maintenance areas yearly for new infestations.
- Treat areas where invasive plant spread is imminent (e.g., after prescribed fire, mechanical or other disturbance).
- Document treatments and update surveys in DRP's Natural Resource Tracking System (NRTS).

Objective: Reduce or maintain cover class on 77,670 acres not in maintenance.

Actions:
- Survey and treat following prescribed fire to prevent rapid spread of invasive species.
- Treat medium infestations with staff and volunteers where available.
- Reduce high infestations with additional labor sources (e.g., contract funding, strike teams) and plan for passive or active restoration.
- Document treatments and update surveys in NRTS.

Approximately 15 acres of Brazilian pepper, along with approximately 4 acres of melaleuca, 0.2 acres of climbing fern, 0.8 acres of cogon grass and 0.5 acres of air potato, are targeted annually for treatment at Fakahatchee Strand Preserve State Park. However, these acres likely will be adjusted following invasive surveys by setting treatment priorities and goals in the annual work plan and as additional funding becomes available. Aerial survey, especially drone use, is a high priority for the park and will allow staff to determine more precise acreage targets. Treated sites should be inspected annually for follow-up treatment. At a minimum, the preserve should have an invasive plant survey updated to ensure information on coverage and species is accurate. To augment invasive species control activities, preserve staff will continue to pursue diverse opportunities, such as improving education and involvement with Southwest Florida Cooperative Invasive Species Management Area regarding invasive species and interpretive outreach for staff, visitors and volunteers.

Invasive and Nuisance Animal Control

Objective: Implement control measures on one non-native/nuisance animal to protect native species and habitats.

Action:
- Remove Burmese pythons utilizing road cruising surveys and opportunistic observations.

During hatchling season, which occurs in late July through early September, preserve staff conduct road cruising surveys throughout the preserve twice a week and remove any pythons encountered. Staff also remove any pythons that are opportunistically encountered.

FAKAHATCHEE STRAND PRESERVE STATE PARK
Planned Cultural Resource Conditions

BIG CYPRESS REGION

CULTURAL RESOURCES

Condition Assessment

Objective: Monitor and assess 78 of 95 recorded cultural resources.

Action:

- Assess/evaluate 78 recorded cultural resources.

There are 78 documented archaeological sites at Fakahatchee Strand Preserve State Park, as listed on the FMSF. These 78 sites will be evaluated within four years of the unit management plan's completion, with 20 sites assessed annually. Each assessment will include an evaluation of the site's current condition, identification of any threats to its preservation, photo documentation for comparison with prior evaluations and GPS coordinates. The findings from these evaluations will help establish a prioritized list for preservation and stabilization efforts. Nine of the sites are challenging to reach due to the navigability of strand swamp, while eight others can only be accessed by boat or through moderate hiking.

Documentation of Recorded Sites

Objective: Compile reliable documentation for all recorded historic and archaeological resources.

Actions:

- Update all FMSF forms.
- Prepare a Scope of Collections Statement.

All newly discovered or previously unrecorded sites will be added to the FMSF. Further cultural inventory within this expansive preserve should be guided by a predictive model being developed by the University of South Florida, which will identify areas of high, medium and low sensitivity for potential cultural site locations. Additionally, a Scope of Collections Statement is needed.

Preservation Measures

Objective: Bring three of 95 cultural sites into good condition.

Actions:

- Restore the Copeland Fire Tower, Pump House/Storage Shed and Copeland Division of Forestry Structures.
- Develop a regular maintenance schedule.
- Design and implement a monitoring program.

The Copeland Fire Tower (8CR01099) and its two associated structures (8CR01101 and 8CR01102) should be restored to good condition during the duration of this unit plan. Specifically, both buildings need new windows, and the fire tower needs several stair steps to be replaced. A cyclical maintenance program for these structures should be established. Additionally, the design and implementation of a monitoring program should be initiated once the assessment of these resources has progressed sufficiently.

FAKAHATCHEE STRAND PRESERVE STATE PARK

Planned Land Use and Infrastructural Conditions

BIG CYPRESS REGION

CONCEPTUAL LAND USE PLAN

Big Cypress Bend Boardwalk

Objective: Replace the strand swamp boardwalk and provide connection to new trailhead.

Actions:

- Replace the existing strand swamp boardwalk within its historic alignment footprint.
- Connect segments of the Big Cypress Bend Boardwalk.
- Develop and implement an interpretive plan for the boardwalk connection.
- Coordinate with tribal representatives to explore interest in a connection to the Miccosukee village.

As of 2026, the strand swamp section of the boardwalk was reconstructed within its historic footprint and now connects to the glades marsh section. A historic lack of parking for this focal point visitor use area has been problematic, often impeding access for residents of the adjacent Miccosukee village. Moving forward, all trail users will access the Big Cypress Bend Boardwalk Trail via the newer Glades Marsh trailhead (with amenities) to the east. This will require careful design and construction to provide a sensitive connection between the two separated sections of the Big Cypress Bend Boardwalk Trail (i.e., the new segment that features the interpretive pavilion and traverses the glades marsh).

Interpretive planning is recommended to determine the most effective way to connect visitors to the preserve's significance and relevant themes along the boardwalk connector to include Miccosukee heritage and the distinction between the glades marsh and the "old growth" strand swamp. The type, design, quantity and placement of interpretive elements to deepen understanding and improve orientation will be specified during this planning process.

In September 2022, Hurricane Ian effectively destroyed the original stretch of strand swamp boardwalk. Reconstruction of this key interpretive asset should fall within the former linear footprint and include connection to the newer glades marsh segment of boardwalk referenced above. While relocating the trailhead and parking for this popular trail relieves congestion near the Miccosukee village, tribal representatives must be consulted to determine the desire for a spur trail leading to the associated Native American gift shop. Whether or not such a side spur trail is created, there is a mutually agreed need to interpret the Miccosukee Tribe's historic presence in this portion of Fakahatchee Strand in terms of refuge, environmental stewardship and their significant role in building advocacy for the expanded preservation of these unique southwest Florida natural areas.

East River Paddling Launch

Objective: Provide paddling access in balance with sensitive resources.

Actions:

- Continue routine monitoring and evaluation of visitor use impacts and implement adaptive visitor management.
- Maintain gate, access road, parking and interpretive infrastructure.
- Coordinate with the Florida Department of Transportation (FDOT) for potential utilization of the wayside rest area to the west of East River Paddling Launch.

Use of the East River Paddling Launch varies throughout the year, with peak demand occurring during the cooler months of winter and early spring. During this time of year, there is a need for more formalized visitor management to avoid deterioration of natural resources from over-parking, unauthorized launching points and related impacts to sensitive wildlife habitats, such as the nearby wading bird rookery. DRP staff will continue to evaluate usage throughout the year and implement effective measures to balance quality of experience with the protection of infrastructure and natural resources.

Recognizing limited parking at the East River Paddling Launch, additional parking must be considered. To avoid expansion of the existing disturbance footprint, a partnership with FDOT may be leveraged for use of the wayside rest area along U.S. 41. Parking at this wayside location would necessitate safe pedestrian access to the launch site, potentially entailing a 1,000-foot boardwalk connecting the two sites. Further impact analysis and planning would be required.

Southeast Entrance Area

Objective: Improve entranceway aesthetics and sense of arrival.

Alternative A – Improve organization, functionality and reception at the current preserve entrance.

- Improve directional signage along the current entrance road.
- Provide wayfinding and interpretive elements at the entrance that clearly identifies the end of Janes Scenic Drive as the primary long-distance trailhead.
- Install a centralized entry fee station.
- Repurpose the small visitor center building for operations.
- Add five volunteer sites.

Directional signage with intuitive messaging and sense of arrival is needed, including a new preserve entrance sign at the turnoff from State Road 29. Such signage, along with preceding highway signage, imparts a critical first impression on visitors, helping to create a positive arrival, sense of place and a smooth segue into the preserve's unique natural landscape. Wayfinding signage located after the entry fee station should clearly identify and direct visitors to the main trailhead of the preserve located at the gate at the northern end of the drivable portion of Janes Scenic Drive. As mentioned under the main trailhead section below, this focal use area (located in the heart of the preserve) will include an expanded kiosk to provide an interpretive overview of the preserve. At the end of Janes Scenic Drive there is a recently installed four-panel trailhead kiosk.

With no staffed entrance station, day use fees are collected via automated fee collection stations. The current station is easily overlooked and often bypassed by visitors who proceed directly into the preserve toward trailhead or use area destinations. A well-designed entry fee station, strategically placed to intercept all visitors who enter the preserve through the Copeland Use Area, is needed.

In addition, five volunteer sites are proposed within this use area. Any intensification of operational support must be sensitive to ongoing viewshed and visitor experience protection, as this area continues to serve as the primary point of entry to the preserve. With the planned realignment of the entrance, opportunities for increased facilities and operational infrastructure become more feasible.

Alternative B – Develop an alternative access to the interior of the preserve.

- Delineate the route of a new entrance road from State Road 29.
- Coordinate potential access with SFWMD.

Relocation of the preserve entrance to the north is recommended, extending east-west between State Road 29 and Janes Scenic Drive. This new entrance will bypass the residential community of Copeland, the park maintenance complex and staff residence areas. The selected westward point of entry from State Road 29 will be contingent upon multiple factors. Near the existing preserve entrance, in the southeasternmost portion of the preserve, Janes Scenic Drive and State Road 29 extend north-south in parallel alignment, approximately 1,100 feet apart. Farther north, Janes Scenic Drive and State Road 29 diverge, increasing the length, cost and impact of a potential east-west entrance road. Situated between State Road 29 and the eastern preserve boundary is a portion of the SFWMD's Green Heart of the Everglades, which would need to be traversed by the proposed road. Acquisition or interagency coordination would be required (see Optimum Boundary section). Maintaining the natural and recently restored hydrology (i.e., PSRP) of this area is essential. To avoid bisection of the north-south hydrological regime through this area, the proposed entrance road must be elevated as a bridge or by a series of large culverts. The northernmost alignment that should be considered is at the junction of State Road 29 and Wagon Wheel Road, which extends through Big Cypress National Preserve. This alignment would maximize visitation between the state and national preserves but requires the longest traverse across intact natural communities (0.75 miles). Incrementally to the south, near the preserve cistern, the remains of a former road provide a potentially viable bed for a segment of the proposed entrance road, requiring a shorter traverse (0.50 miles).

An entry fee station should be located in the vicinity of where the new entrance road intersects Janes Scenic Drive. A modest number of parking spaces would provide access to well-crafted and strategically placed introductory interpretive panels with a focus on the same park-defining themes identified in Alternative A above. Additional signage in this location would inform visitors of recreational opportunities in the southeastern portion of the preserve, such as shoreline fishing and wildlife viewing. A brief history of the human utilization of the site and succession of the former limestone mines to naturalized wetlands should be interpreted in addition to an overview of the diversity of aquatic life and wading birds that commonly inhabit and forage the lakes. To achieve effective visibility, the proposed interpretive materials of the use area should be grouped in vicinity of the small parking area and entry fee station.

While any new linear corridor will serve to intersect and alter the sheet flow or drainageway movement of water, evaluation of this new entrance road alternative should consider that the staff support area and greater community of Copeland, located south of the proposed route, have already highly impacted the down drainage hydrology. This rationale becomes increasingly unviable, however, as the proposed route for a new entrance road moves farther north. It is therefore recommended that the proposed route be located just far enough north of the shop compound as necessary to provide a natural veneer for aesthetic buffering.

Jones Grade Trailhead and Lakes Use Area

Provision of visitor access to the altered roadside landscape of the Jones Grade Use Area is inconsistent with the philosophy and purpose of the preserve. As the largest unit of the Florida State Park System and occupying a substantial fraction of the Big Cypress region, Fakahatchee Strand Preserve State Park is intended to protect and interpret remoteness and expansive natural features. The corresponding management approach should align with and accentuate these qualities. Limiting the number and scale

of multiple entrances and/or peripheral use areas is consistent with such an approach, particularly in highly altered/ruderal areas such as the former lime rock quarries of Jones Grade, which are not representative of the prairie and strand swamp mosaic ecosystem of this showcase unit of the state park system. Distance from support facilities imposes an operational burden on preserve staff. Accordingly, visitation should be focused within the high-value use areas where well-preserved natural communities that define the preserve can be experienced and appreciated.

Objective: Transition the former Jones Grade quarry site from use area to restoration area.

Actions:

- Discontinue public access at Jones Grade in favor of enhanced sense of arrival and introductory interpretation at the main trailhead located within the heart of the preserve.
- Improve habitat conditions within the former quarry lakes.
- Restore upland natural communities surrounding the former quarry lakes.

As one of the most ecologically significant preserves in the state park system, the sense of arrival should be focused within the highest quality areas that define the unit. The main trailhead within the heart of the preserve (accessed via Janes Scenic Drive) provides the proper location to intuitively appreciate and embark into the rare wilderness experience of Fakahatchee Strand. To successfully instill this sense of arrival, introductory interpretive enhancements are introduced under the conceptual proposals for Janes Scenic Drive and main trailhead below.

Conversely, initial impression and recreation potential at the Jones Grade former quarry sites does not meet state preserve standards. Both the visitor and the resource would benefit from transitioning this highly altered northeastern corner of the preserve from a recreational use area to a site of focused habitat improvement and natural community restoration. Both aquatic habitat improvement and upland restoration are discussed in the Resource Management Component.

Janes Scenic Drive and Main Trailhead

Objective: Improve the viewshed along appropriate segments of Janes Scenic Drive.

Actions:

- Manage vegetation along select segments of Janes Scenic Drive.
- Maintain and, where appropriate, improve the system of culverts.

While the northern two-thirds of Janes Scenic Drive traverse various stages of strand swamp, the initial segment north from Copeland traverses marl prairie with potential for remarkably picturesque views across this herbaceous natural community. Reflective of the name of the road (Janes Scenic Drive), this corridor is intended to contribute to the visitors' sense of arrival and immersion into the preserve prior to venturing into the trail system on foot. While some segments currently offer the intended viewshed, others are occluded by a dense growth of early successional hardwoods or phragmites. Managing this roadside vegetation would be consistent with improving the overall visitor experience.

Additionally contributing to vegetation management, hydrological connectivity across the parkwide landscape to the side of Janes Scenic Drive, as discussed in the Resource Management Component, will increase water depths and rate of flow such that walls of tall, woody vegetation will be reduced, in turn expanding the iconic viewsheds of the preserve.

Objective: Emphasize the main trailhead as the premier point for embarkment into the heart of the preserve.

Action:

- Update interpretation and wayfinding.

For many visitors, the main trailhead at the end of Janes Scenic Drive is the first point where they leave their vehicle and begin their true outdoor experience. For a sense of arrival, updated interpretive kiosks and wayfinding should be installed to enhance visitor connection to the strand swamp and sloughs into which they are about to embark, including aspects such as natural history, signature species and management strategies DRP employs to preserve this vast natural landscape. More specifically, natural history elements could include the biogeology of strand swamp formation, the endemism and species richness and a broad interpretation of the seasonal hydrological regimes that so heavily shape the preserve's vast mosaic of wetlands.

Trail System

Objective: Improve the preserve's trail system to ensure sensitivity to natural resources and appropriate visitor access.

Actions:

- Conduct a comprehensive evaluation of all existing preserve trails.
- Identify and modify trail alignments that pose significant impacts to sensitive natural areas.
- Improve trail conditions and wayfinding for all vetted trails.

By necessity, the trail system at this wetland preserve aligns with former tram roads that provide elevated corridors through the seasonally flooded strand swamps and prairies. Past attempts to delineate secondary trails without utilizing elevated trams have come with impacts to the natural resource. These trail segments should be re-evaluated.

The objective of this comprehensive trail system evaluation is to provide preserve visitors with high quality access to representative natural portions of the preserve. Likewise, avoiding or acceptably minimizing impacts to the sensitive wetland natural communities is prioritized in this exemplary unit. While single track trails should remain a viable option in appropriate areas, other segments of trail should share space with established resource management roads to avoid further disturbance.

The comprehensive parkwide trail concept at Fakahatchee Strand Preserve State Park should continue to adhere to tram beds. Extending narrow-gauge trails through certain areas of the preserve where the immersive visual and interpretive experience is otherwise lacking, may be considered. Secondary trails would be seasonally accessible, dependent upon water levels and density of vegetation encroaching on the trail. All such trails would originate from only one or two formal trailheads: the main preserve headquarters in the southwestern portion of the preserve and/or the northern driving terminus of Janes Scenic Drive (i.e., not providing trailheads at peripheral entry points from along the preserve boundary such as Jones Grade).

Parkwide Infrastructure and Hydrological Compatibility

Objective: Improve and maintain the system of culverts to sustain the natural movement of water across the preserve.

Actions:

- Monitor hydrology.
- Maintain existing culverts.
- Install additional culverts or other related water-handling measures as needed.

The Gulf American Land Corporation constructed hundreds of miles of flood control canals in the roughly 55,000 acres just west of Fakahatchee Strand Preserve State Park in preparation for what was planned to be the South Golden Gate Estates. By the time this development was discontinued, the canals were draining well over 200 billion gallons of fresh water a year directly into the Gulf, disrupting estuarine ecosystems and drastically impacting the hydrology of the western Everglades drainage basin. Today, this area is managed by the Florida Forest Service as Picayune Strand State Forest, where one of the largest landscape level hydrological restoration projects in the Southeast United States is well underway.

The PSRP, coordinated by the U.S. Army Corps of Engineers and SFWMD, aims to fill nearly 60 miles of canals and remove over 200 miles of fill roads. Initial phases of the project have already been completed, resulting in a significant degree of restored sheet flow into and through the preserve. While the improved hydrology benefits the preserve's strand swamps and other natural communities, it is necessary to monitor the corresponding water levels and increase the number of water-handling structures, particularly along Janes Scenic Drive and other essential resource management access roads. Consistent collection of water quantity data, largely taken via staff gauge at culvert crossings or at groundwater monitoring standpipes, helps correlate water levels with restoration efforts and refine future efforts.

OPTIMUM BOUNDARY

Within Fakahatchee Strand Preserve State Park, approximately 900 private inholdings remain, totaling approximately 3,183 acres. Management around this parkwide distribution of inholdings complicates operations for conducting prescribed fire, treating invasive plants, monitoring imperiled species and conducting law enforcement activities vital to the purposes, goals and objectives of the preserve. Providing statutorily required access to private inholdings requires strategic planning and includes estimating the most efficient, reliable and low-impact paths to subject parcels. Closure of Janes Scenic Drive to recreational vehicular access further complicates access to private parcels such that gate codes must be provided. Accordingly, ongoing acquisition of the inholdings is a high priority for the preserve.

Strand swamp, wet pinelands and wet prairies are the principal natural communities on the properties proposed for acquisition. These areas are vital for buffering the core of the preserve, expanding managed habitat areas for the Florida panther and other wildlife, protecting the quality of water that flows to the Ten Thousand Islands and providing additional public lands for recreation in this flagship and globally significant region of Florida.

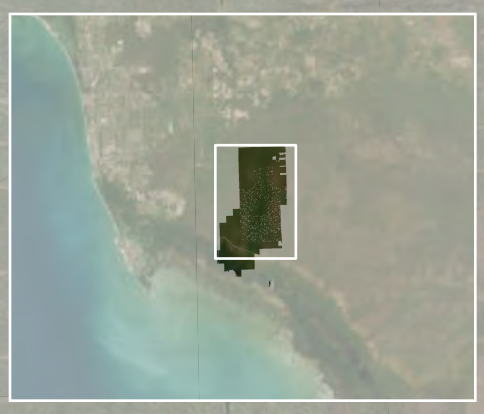
1. Big Cypress Bend Boardwalk - Replace the existing strand swamp boardwalk and connect to the new Glades Marsh Boardwalk Trail. Implement interpretive plan.

2. East River Paddle Launch - Monitor visitor use impacts.

3. Southeast Entrance Area - Improve entranceway aesthetics and sense of arrival.

4. Trail System - Develop and improve the park trail system to preserve natural resources and provide appropriate visitor access.

5. Jones Grade Trailhead and Lakes Use Area - Transition this use area from a quarry site to upland restoration and aquatic improvement.



INSET

FAKAHATCHEE STRAND PRESERVE STATE PARK
Conceptual Land Use Plan

N

0 1 2 Miles

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3

Southeast Entrance Area -
Alternative A - Improve entranceway aesthetics and sense of arrival.

Alternative B - Develop an alternative access.

B

3

A

FAKAHATCHEE STRAND PRESERVE STATE PARK
Conceptual Land Use Plan - Proposed Park Drive

N

0 200 400 Feet

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A portion of the SFWMD's Green Heart of the Everglades is located along the eastern boundary of the preserve and the western side of State Road 29, north of Copeland. DRP maintains interest in the southern portion of this tract for development of a new preserve entrance directly west of State Road 29 that would bypass Copeland and the operational facilities of the preserve. If not acquired by lease, the entrance concept would require interagency coordination and consideration of an access easement traversing east-west across the SFWMD tract.

Other Existing Conservation Lands
Existing Park Boundary

Optimum Boundary
ARC-Approved Additions

FAKAHATCHEE STRAND PRESERVE STATE PARK
Optimum Boundary

N

0 1.5 3 Miles

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