Caloosahatchee Regional Park Land Management Plan

2021 – 2031

Lee County Department of Parks and Recreation

Approved by the Lee County Board of County Commissioners on June 21, 2011.

Approved by the Division of State Lands, Office of Environmental Services on October 14, 2011.

I. EXECUTIVE SUMMARY

Lead Managing Agency: Board of County Commissioners of Lee County, Florida (Department of Parks and Recreation)

Common Name of the Property: Caloosahatchee Regional Park (CRP)

Location: Alva, Lee County, Florida

Acreage Total: 768 acres (718 acres under lease from the Board of Trustees of the Internal Improvement Trust Fund; 50 acres under lease from the South Florida Water Management District)

Acreage Breakdown:

FLUCCS Classification	Class	Land Cover Classification	Acres*	% of CRP
1180	Urban and Built-Up	Rural Residential	61	8.04
3200	Rangeland	Shrub and Brushland	225	29.64
3300		Mixed Rangeland	179	23.58
4110	Upland Forests	Pine Flatwoods	93	12.25
4220		Brazilian Pepper	14	1.84
5110	Water	Natural River, Stream, Waterway	1	0.13
6170	Wetlands	Mixed Wetland Hardwoods	124	16.34
6210		Cypress	18	2.37
6250		Hydric Pine Flatwoods	11	1.45
6300		Wetland Forested Mixed	32	4.22
6410		Freshwater Marshes	1	0.13

**Due to rounding values, total acreages (and therefore percentages) may not equal the true acreage of CRP. These numbers are approximations.*

Lease: No. 3698 (Lands released from Lease No. 2460)
Use: Single use for conservation and preservation (and management as a resource-based public outdoor recreational area).
Management Responsibilities: Lee County Department of Parks and Recreation, Lead Management Agency
Designated Land Use: Single Use Management
Sublease(s): None
Contract(s): None
Encumbrances: Perpetual Pipeline and Spoil Easements (USACOE), Ingress/ Egress, Electrical, Drainage Easements
Type Acquisition: Land Acquisition Trust Fund (LATF): Fee Simple
Unique Features: 1.3 miles of undeveloped frontage along the Caloosahatchee River
Archaeological/Historical: One known archaeological site/ one known historical site
Management Needs: Significant restoration needed to restore/ create natural communities, exotic plant and animal control, shoreline maintenance
Acquisition Needs/Acreage: None
Surplus Lands/Acreage: None
Public Involvement: Public Hearing, Meeting of the Lee County Board of County Commissioners.

Notable Projects and Completed Activities (2010-2021):

Large Scale Restoration Projects

- Fitcher's Creek Restoration project planning was completed. Construction of Fitcher's Creek Restoration was completed in 2017.
- Shoreline Restoration Phases 1, 2 were permitted and completed. Phase 1 was completed in July 2015; Phase 2 was completed in February 2017. Phase 3 began permitting in 2020, to be completed 2022.

Natural Resource Management

- FWC funded exotic treatment for management units E and F, completed 2016-1017.
- South Side of CRP treated with herbicide 2019.
- On going yearly treatment of Fitcher's Creek Restoration project by Lee County Natural Resources Deprtmant.

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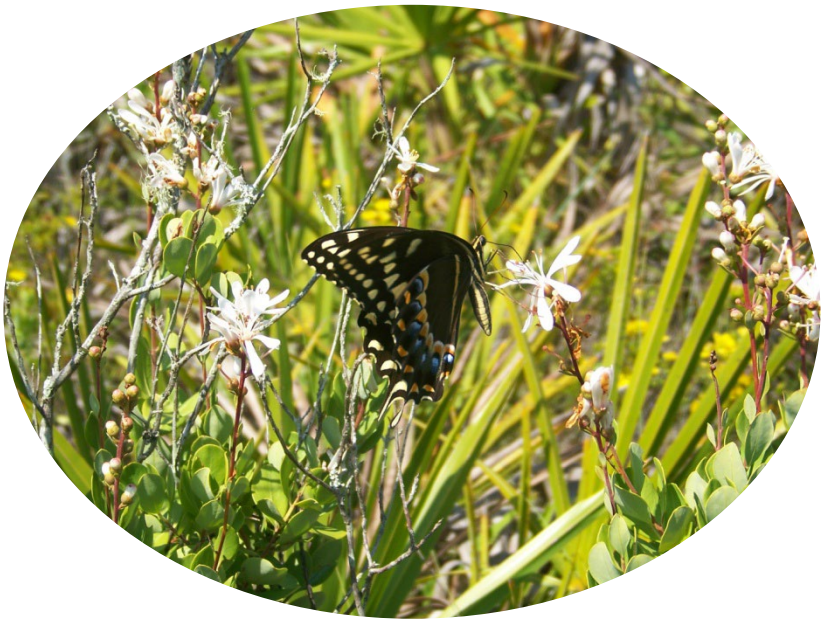

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CALOOSAHATCHEE REGIONAL PARK

Approval by the Lee County Board of County Commissioners

This management (stewardship) plan was presented to the Lee County Board of County Commissioners (BoCC) during a Regular Board Meeting on Tuesday, June 21, 2011 (Administrative Agenda Item 9A) and approved by a 3-2 vote. The following County Commissioners were present for and voted on this item: Frank B. Mann, Chairman; John E. Manning, Vice Chairman; A. Brian Bigelow; Ray Judah and Tammy Hall. Alva resident, Keith Dean, spoke in favor of the Zip Line at the park during the allotted public comment period.

The following are the approved minutes from this portion of the meeting (BOOK - 2011R - B.O.C.C. pages 311 – 312). These minutes were obtained from the office of the Lee County Clerk of Courts. Please note: link to item #20110475 is a link to the actual stewardship plan presented to the BoCC.

9. **PARKS AND RECREATION**

A) **ACTION REQUESTED/PURPOSE:**
Determine whether to include the Zip Line within the Caloosahatchee Regional Park (CRP) Management (Stewardship) Plan 2011 - 2021, and then approve and forward the CRP Stewardship Plan to the State's Board of Trustees of the Internal Improvement Trust Fund (TIITF) via the Division of State Lands (Acquisition and Restoration Council) for final approval. (#20110475-PARKS AND RECREATION)
FUNDING SOURCE:
N/A
WHAT ACTION ACCOMPLISHES:
Approval of the CRP Management Plan establishes guidelines for the stewardship activities, restoration, and public use of the park for the next ten years and puts Lee County

----------APPROVED MINUTES OF 062111R----------

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in compliance with State requirements.
MANAGEMENT RECOMMENDATION:
To approve the new 10 year CRP Management Plan as written.

Public Parks and Recreation Director Barbara Manzo provided a summary overview of the Caloosahatchee Regional Park Management Plan and responded to specific questions on the proposed zip line. Following discussion, Commissioner Judah moved approval of the Plan as written, seconded by Commissioner Hall. Following a suggestion by Commissioners Mann and Bigelow to look at alternative sites for a zip line, the motion was called and carried with Commissioners Mann and Bigelow voting nay.

Approval by the FDEP, Division of State Lands

Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

October 14, 2011

Ms. Annisa Karim
Land Stewardship Coordinator
Lee County Department of Parks & Recreation
17980 State Road 80
Alva, FL 33920

RE: Caloosahatchee Regional Park – Lease # 3698

Dear Ms. Karim:

The Division of State Lands, Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the Caloosahatchee Regional Park land management plan. The next management plan update is due October 14, 2021.

Approval of this land management plan does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Marianne S. Gengenbach
Office of Environmental Services
Division of State Lands

Letter of Compliance with Local Government Comprehensive Plan

Lee County
Southwest Florida

Board of County Commissioners

September 14, 2022

Ms. Emily Gear
Lee County Parks and Recreation
3410 Palm Beach Boulevard
Fort Myers, FL 33916

Re: **Letter of Comprehensive Plan Consistency**
Caloosahatchee Regional Park

Dear Emily,

Department of Community Development staff have reviewed the use of Caloosahatchee Regional Park for consistency with the Lee County Comprehensive Plan, the Lee Plan. Caloosahatchee Regional Park is designated as Conservation, Uplands and Conservation, Wetlands on the Future Land Use Map. These categories are intended to recognize land held for recreation and conservation purposes. As such, the intended use of the Regional Park as a passive recreation area is consistent with the Lee Plan.

Sincerely,

Department of Community Development

Mikki Rozdolski

Mikki Rozdolski
Planning Manager

P.O. Box 398, Fort Myers, Florida 33902-0398 | (239) 533-2111 | leegov.com

Land Management Plan Compliance Checklist

Required for State-owned conservation lands over 160 acres

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	i
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	i
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	i
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	3, i
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	5
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	i, 37-38
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	37-38
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	4
9	A statement of the purpose for which the lands were acquired, the projected use or uses as defined in 253.034 and the statutory authority for such use or uses.	259.032	i
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	4

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	i
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	i, 32-35
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	52
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	i
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	29-30
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	N/A
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	45

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	45
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	ix
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	54
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
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	N/A
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	54

*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	
25	The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.	259.032	
26	LMPs and LMP updates for parcels over 160 acres shall be developed with input from an advisory group who must conduct at least one public hearing within the county in which the parcel or project is located. *Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.*	259.032	

27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	
28	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. *Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.*	253.034 & 259.032	
29	The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. *Include manager's replies to the team's findings and recommendations.*	259.036	
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	
31	If manager is not in agreement with the management review team's findings and recommendations in finalizing the required 10-year update of its management plan, the managing agency should explain why they disagree with the findings or recommendations.	259.036	

Section D: Natural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
32	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding soil types. *Use brief descriptions and include USDA maps when available.*	18-2.021	10
33	Insert FNAI based natural community maps when available.	ARC consensus	16-17
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	17
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	12-13
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	N/A
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	7-8
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	25
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	25-27
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	App F

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	29, 30, 73, 74
42	Habitat Restoration and Improvement	259.032 & 253.034	69
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.	↓	69
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.		69
42-C.	The associated measurable objectives to achieve the goals.		69
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.*		69
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.		69
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. *See footnote.*	253.034	16-24
44	Sustainable Forest Management, including implementation of prescribed fire management		67-69
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		67
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		67-68
44-C.	Measurable objectives (see requirement for #42-C).		67-68
44-D.	Related activities (see requirement for #42-D).		67-68
44-E.	Budgets (see requirement for #42-E).	18-2.021, 253.034 & 259.032 ↓	68-69
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034	73-74
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	73-74
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		74
45-C.	Measurable objectives (see requirement for #42-C).		74
45-D.	Related activities (see requirement for #42-D).		73-74
45-E.	Budgets (see requirement for #42-E).		74
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. *See footnote.*	253.034	73
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	App G
48	Exotic and invasive species maintenance and control	259.032 & 253.034	70-73

48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	70-73
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		71
48-C.	Measurable objectives (see requirement for #42-C).		71
48-D.	Related activities (see requirement for #42-D).		70-73
48-E.	Budgets (see requirement for #42-E).		72-73

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	12
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	13
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	14
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. *See footnote.*	253.034	12-14
53	Hydrological Preservation and Restoration	259.032 & 253.034	70
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	70
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		70
53-C.	Measurable objectives (see requirement for #42-C).		70
53-D.	Related activities (see requirement for #42-D).		70
53-E.	Budgets (see requirement for #42-E).		70

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	30
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	16-28, 58-66
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	29
57	Cultural and Historical Resources	259.032 & 253.034	29-30
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	29-30

57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		30
57-C.	Measurable objectives (see requirement for #42-C).		30
57-D.	Related activities (see requirement for #42-D).		29-30
57-E.	Budgets (see requirement for #42-E).		30

**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	16-24
59	Capital Facilities and Infrastructure	259.032 & 253.034	73
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	73
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		73
59-C.	Measurable objectives (see requirement for #42-C).		73
59-D.	Related activities (see requirement for #42-D).		73
59-E.	Budgets (see requirement for #42-E).		73
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	73
61	Public Access and Recreational Opportunities	259.032 & 253.034	45-52
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	47-50
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		49-50
61-C.	Measurable objectives (see requirement for #42-C).		49-50
61-D.	Related activities (see requirement for #42-D).		47-50
61-E.	Budgets (see requirement for #42-E).		46

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	xi-xviii
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	i
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	ii
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	i

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	77-78
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	77-78
68	A statement of gross income generated, net income and expenses.	18-2.018	77-78

*** = 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.

Vision Statement

The vision for Caloosahatchee Regional Park is to offer and promote appropriate, state-approved, resource-based, recreational activities while maintaining the over-arching goal of natural and cultural resource protection. Safeguarding and enhancing the environmental integrity and biological diversity of the site will be the guiding principle for the stewardship and operation of this park.

Continuing stewardship activities aim to restore disturbed portions of the park, including the shoreline and spoil deposit area, to stable and productive systems that contribute to the biological diversity of the entire site. Interpretive programs and materials will strive to allow the visitor to develop a "sense of place" and to understand the basic concepts that can be applied to their everyday life. ***"For in the end, we will conserve only what we love. We will love only what we understand. We will understand only what we are taught." -Baba Dioum***

The Caloosahatchee Regional Park will be managed to the standards of Lee County Department of Parks and Recreation, Lee County Ordinance No. 18-12, and will maintain compliance with Chapters 253 and 259, Florida Statutes, and Chapters 18-2, Florida Administrative Code.

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II. INTRODUCTION

The following management plan for the ***Caloosahatchee Regional Park*** was submitted for review to the Lee County Board of County Commissioners (BoCC) on Month Day, 2021 and approved by a vote of 3-2 (Agenda Item A9A). This plan was then submitted to the State of Florida Board of Trustees of the Internal Improvement Trust Fund (TIITF) for final approval through the Florida Department of Environmental Protection's (FDEP), Division of State Lands pursuant to Chapters 253 and 259, Florida Statutes (FS), and Chapters 18-2 and 18-4, Florida Administrative Code (FAC). Acting as representatives of the TIITF and the Division of State Lands - Office of Environmental Services, the Acquisition and Restoration Council (ARC) made the final decision on the approval of this plan. Format and content were drafted (1) to meet statutory [Sections 253.034(5) and 259.032(10), F.S.] and rule requirements, and (2) in accordance with Lee County Department of Parks and Recreation (LCPR) requirements of management plans outlined in the Land Stewardship Operations Manual (LSOM). The ARC unanimously approved this plan on Month Day, Year. ***This document serves as the required, ten-year update of management plans to the FDEP's Division of State Lands.***

According to Farr and Brock (2006), "In 1963, the Florida Legislature began the first of a series of land acquisition programs for conservation and recreation purposes, all with dedicated funding sources. The Land Acquisition Trust Fund (LATF) was created to fund a newly-created Outdoor Recreation and Conservation Program, designed primarily to purchase land for parks and recreation areas." The purchase of the lands currently known as the Caloosahatchee Regional Park (CRP) began in 1969 with LATF monies. In 1970, TIITF entered into an agreement with the Florida Department of Natural Resources (now known as the FDEP), to establish the Caloosahatchee River State Park "for the use and benefit of the Division of Recreation and Parks" under lease number 2460. This entity had no immediate plans for the development of facilities and programs and consequently lands under lease 2460 were released and ***Lee County obtained a 50-year lease (Lease No. 3698) to the property for the establishment of public, outdoor recreational facilities as a unit of the county's Regional Park System on June 14, 1989 (Appendix A).***

Located in southwest Florida in northeastern Lee County, CRP encompasses approximately seven hundred sixty-eight (768) acres and is located on the north side of the Caloosahatchee River. Seven hundred eighteen (718) acres of the site are leased from the TIITF. Lee County obtained a lease from the South Florida Water Management District (SFWMD) for fifty (50) acres on April 20, 2004 (Figure 1) and is currently operating under lease 3410E-009 effective Feburary 3, 2021. The Lease Term is for one (1) year with an expiration date of February 3, 2022, however the lease will automatically renew for another year unless either party elects to terminate the lease.

The 50-year TIITF lease agreement (Lease No. 3698) with the BoCC directs the BoCC (via LCPR) to "manage the leased premises only for the conservation and protection of natural and historical resources and resource-based, public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 253.023(11), FS". The lease agreement further directs the BoCC (via LCPR) to "implement applicable Best Management Practices for all activities under this lease in compliance with paragraph 18-2.018(2)(h), FAC, which have been selected, developed, or approved by lessor, lessee, or other land managing agencies for the protection and enhancement of the leased premises."

Per county standards the required level of service for Regional Parks is (6) acres per 1,000 total, seasonal population per Lee Plan Policy 95.1.3. This a nonregulatory standard. The estabilishment of CRP fulfilled the need for a regional park in northeastern Lee County.

The mission of the LCPR is to (1) provide safe, clean, and functional Parks & Recreation facilities, (2) provide programs and services that add to the quality of life for all Lee County residents and visitors, and (3) enhance tourism through special events and attractions. CRP has been developed in a manner to ensure the conservation and protection of natural and historical resources while providing resource-based, public, outdoor recreational opportunities that have been approved for state lands and that are compatible with the conservation and protection of these public lands. The site's diverse vegetation and extensive frontage on the river, coupled with interpretive programs and amenities, provide various opportunities for the public to enjoy and continue to be educated about the importance of the site.

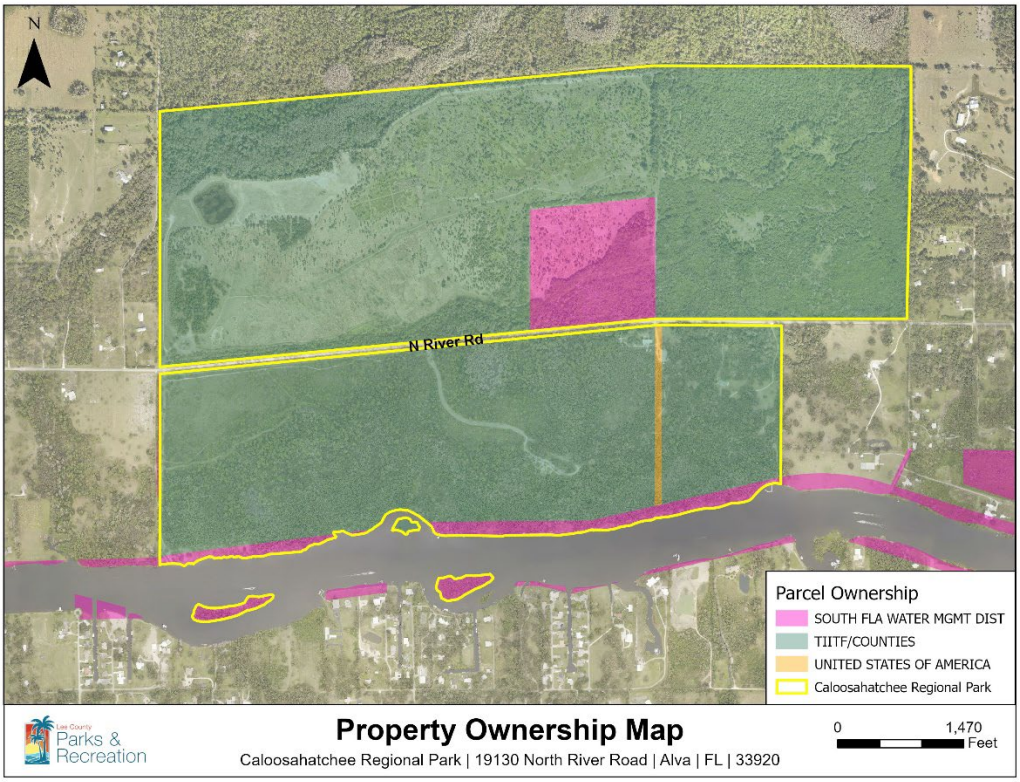


Figure 1: Ownership Map of CRP.

III. LOCATION AND SITE DESCRIPTION

The CRP is located in southwest Florida within Sections 17, 18, 19 and 20 of Township 43 South, Range 27 East and is entirely within the northeastern portion of Lee County. It is divided by County Road 78 (North River Road) and is approximately two miles west of the town of Alva. CRP is bordered by private residences to the east and west, the Bob Janes Preserve (Lee County portion of the Babcock Ranch Preserve) to the north and Caloosahatchee River to the south (Figure 2).

Providing scenic vistas, the approximately 6,700 linear feet (1.3 miles) of undeveloped frontage on the Caloosahatchee River is a unique feature of the park. Approximately 52% of CRP consists of areas disturbed by deposit of dredge spoil in the 1960s, while 24% is in upland, and 24% is in wetland communities. The diverse plant communities of the site include pine flatwoods, palmetto scrub, cypress, hardwood bottomland, and oak hammock. Wildlife observed include bobcat (*Lynx rufus*), white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), river otter (*Lontra canadensis*), eastern indigo snake (*Drymarchon couperi*), eastern diamondback rattlesnake (*Crotalus adamanteus*), gopher tortoise (*Gopherus polyphemus*), red-shouldered hawk (*Buteo lineatus*), barred owl (*Strix varia*), swallow-tailed kite (*Elanoides forficatus*), wild turkey (*Meleagris gallopavo*), and Audubon's crested caracara (*Caracara cheriway*).

CRP was opened to the public in March 1999. The "south side" (portion of CRP south of County Road 78) includes picnic shelters, restrooms, hiking trails totaling 5.25 miles, a campground, a lodge, an overlook, fishing pier, a canoe/ kayak launch, parking, and offices. The campground area of the park features 28 primitive tent camping sites. Group and equestrian camping options are available, as well as special use areas for large events. The "north side" (portion of CRP north of County Road 78) has 11.30 miles of mountain bike trails and 6.25 miles of equestrian trails as well as a picnic shelter, parking, and restroom facilities (Figure 3).

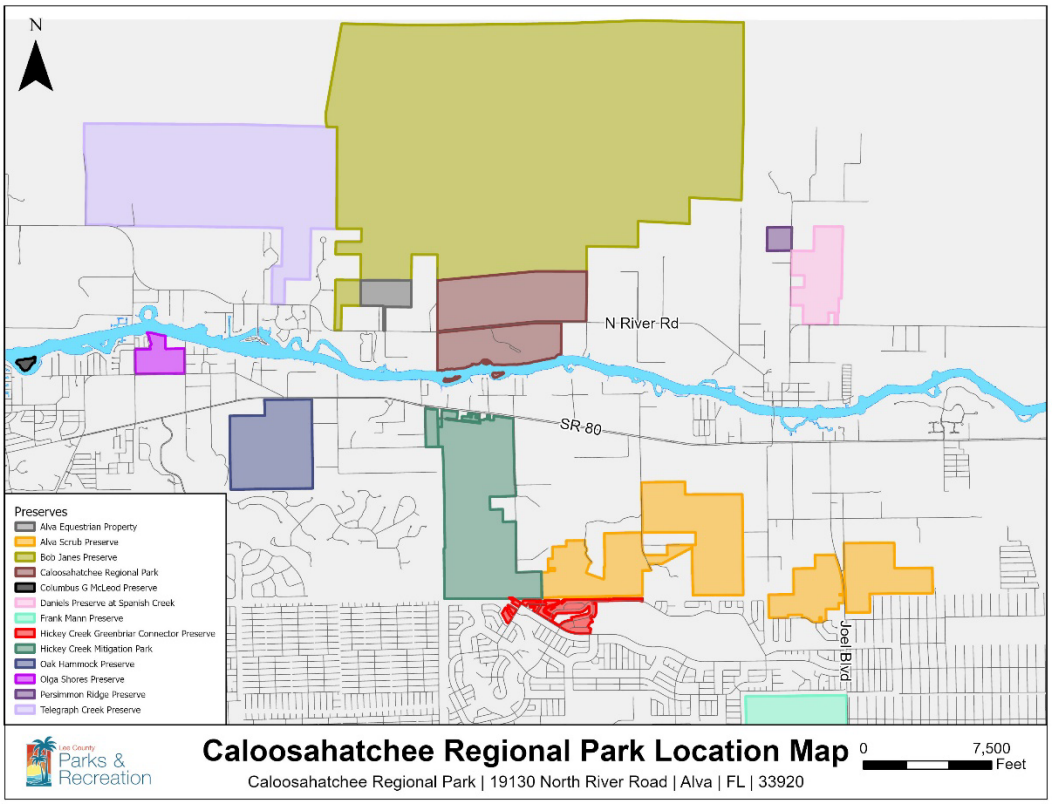


Figure 2: CRP and Other Conservation Lands in Northeastern Lee County, FL.

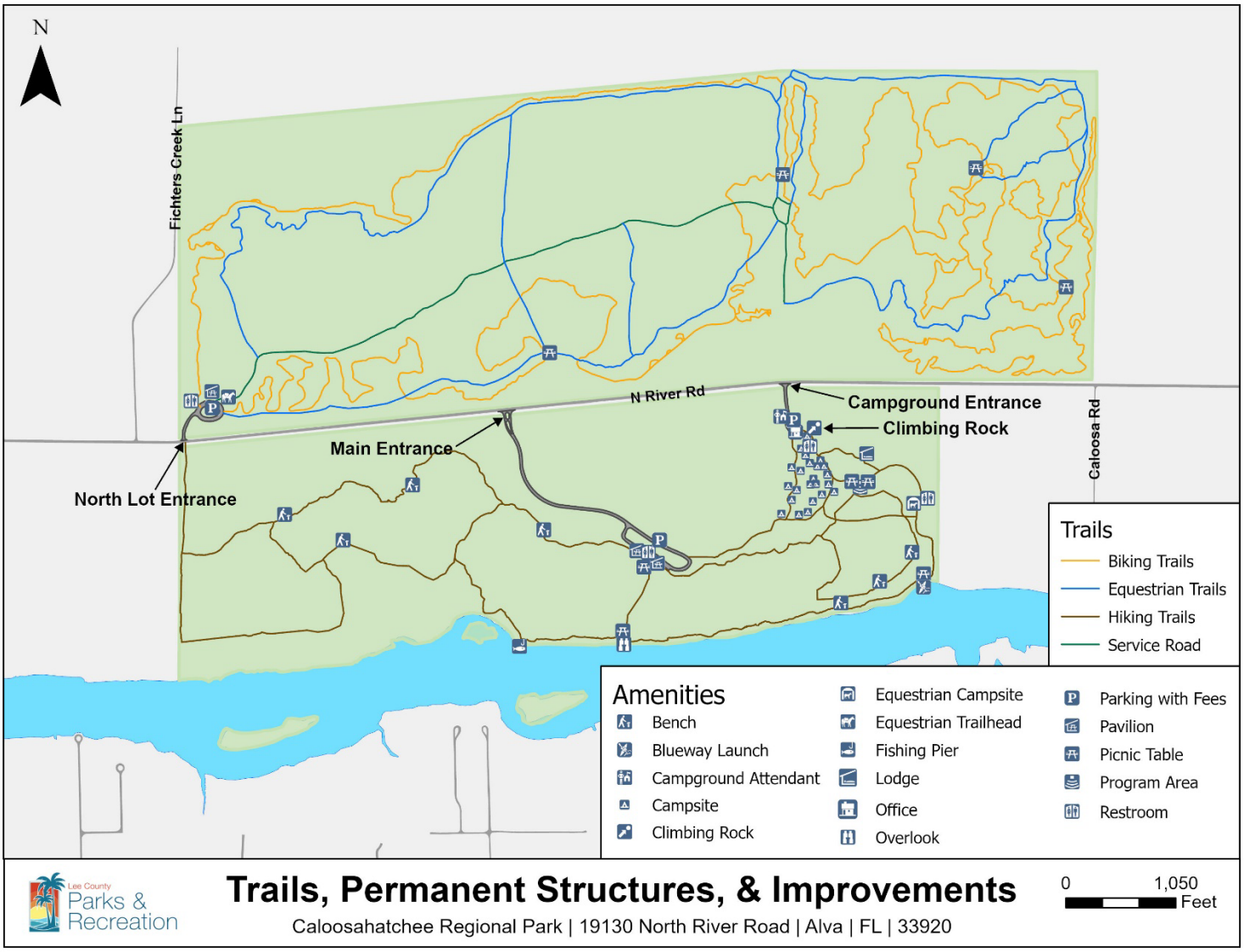


Figure 3: Map of Trails, Permanent Structures and Improvements.

IV. NATURAL RESOURCES DESCRIPTION

A. Physical Resources

i. Climate

Southwest Florida has a humid, sub-tropical climate due to its maritime influence from the Caribbean Sea and the Gulf of Mexico. The mild temperatures encourage winter residents and tourists to visit the area. Temperate climate influences are exerted as well, with infrequent but significant freezes occurring in December and January (FCC 2005). These freezes prevent some tropical plants from becoming established and occasionally damage the subtropical vegetation. Cold fronts regularly push cool, sometimes moist weather from the southeastern U.S. to southwest Florida during the winter. These cold fronts also encourage migratory birds to utilize CRP either as a stopover point on a longer voyage, or as a winter roosting and feeding area. Table 1 shows the mean high and low temperatures for Fort Myers, Florida compiled by the National Weather Service Forecast Office from Tampa Bay, Florida from 1/ 1/1902 to 12/31/2020.

Table 1: Mean Maximum/ Minimum Temperatures (°F) for Ft. Myers, FL (1892 - 2020).

	Jan.	Feb.	Mar	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Mean Max. Temp.	74.6	76.3	80.0	84.3	88.4	90.2	90.7	90.9	89.4	85.4	79.9	75.9
Mean Min. Temp.	53.8	55.0	58.8	62.7	67.6	72.3	73.9	74.3	73.6	68.4	60.7	55.8

Figure 4 depicts the rainfall data collected by the Lee County Department of Natural Resources. Data is collected daily. Mean rainfall from 1998 – 2020 was 61.31 inches. The Alva rain gauge is located at the Alva Fire Department, approximately 2.2 miles southeast of CRP.

Occasionally, major hurricanes pass through southwest Florida impacting natural ecosystems and man-made infrastructure. Although these effects are believed by many to be short-term, long-term consequences may result in plant canopy restructuring, invasive plant introduction and/or further dispersal, and increased wildfire severity to communities from increased fuel loads (dead vegetation). The effect of hurricanes on natural systems are compounded by the already present anthropogenic impacts. During 2004, tropical systems (Charley, Frances, and Jeanne) passed over Lee County. These systems did extensive damage to the campground area of CRP, as well as along some north side trails, requiring removal of large live oak (*Quercus virginiana)* limbs and many trees. In October 2005, Hurricane Wilma also passed through the area with hurricane force winds and caused more tree damage at the park. Hurricane Irma struck Lee County in September 2017 and caused widespread damage across the county. There was a significant number of tree limbs down across the park and the trails at the park needed to be closed for several weeks to clear all the debris.

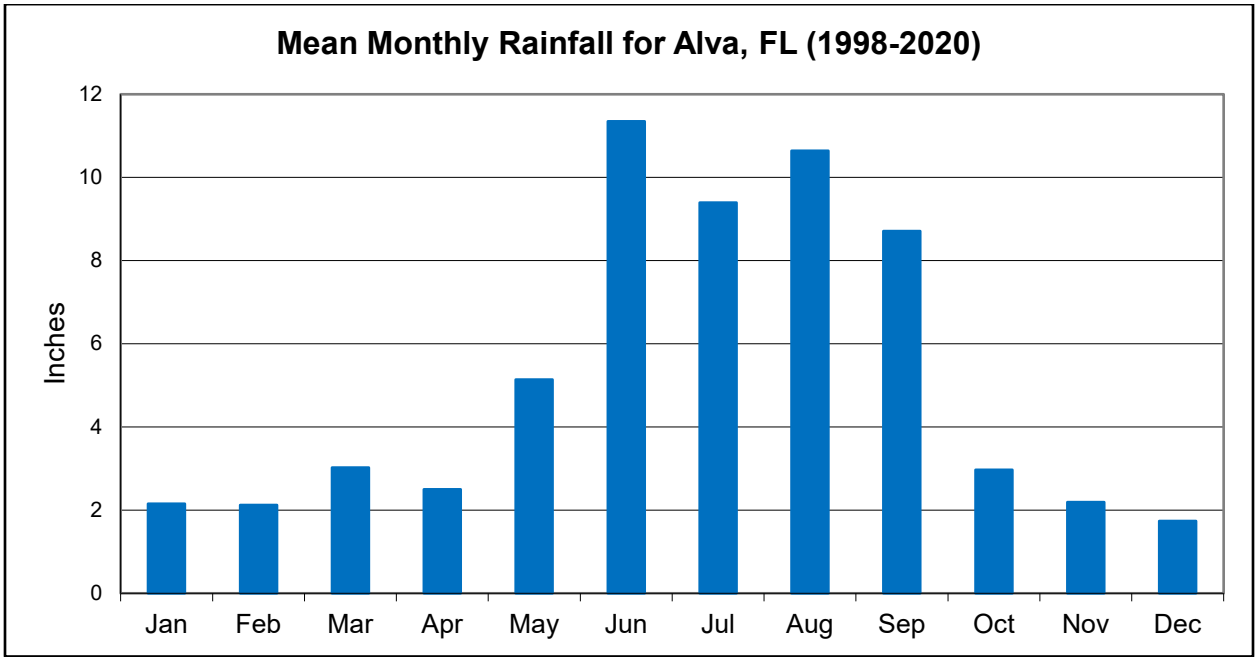


Figure 4: Mean Monthly Rainfall Data for Alva, FL. from 1998 – 2020.

ii. Geology (Mineral Resources)

For millions of years, the Florida Platform was submerged in the ocean. Sediments accumulated upon it and hardened into sedimentary rock. Thirty-five (35) million years ago, portions of Florida rose above the ocean's surface and for the next 12 million years, it alternated between emersion and submergence. From 23 million years ago to the present, at least a small portion of the Florida Platform has always been above the ocean surface.

CRP lies in the Tamiami Formation lithostratigraphic unit. The CRP site rests on a foundation of limestone. The upper layer of the limestone belongs to a Pleistocene series of sedimentary deposits called the Anastasia formation (coquinoid limestone and clay). Soil overlaying the limestone base has an average thickness of 3 feet and tends to be sandy, mixed with marl.

Lithostratigraphic units are differentiated by the conditions under which they were formed and the specific interval of geologic time. The Tamiami Formation was created during the Pliocene Epoch between 5.3 million and 1.8 million years ago. The Tamiami Formation contains a mix of fine to coarse-grained sand, sandy clay, fossiliferous sand, and fossiliferous limestone. Phosphate is present throughout as are fossils, particularly barnacles, mollusks, corals, sea urchins, and smaller marine life.

Southwest Florida can be divided into 10 major physiographic provinces as described in the Southwest Florida Ecological Characterization Atlas (1984). These are broad-scale subdivisions based on physical geography features such as terrain texture, rock type and geologic structure and history. CRP lies within the Caloosahatchee Valley physiographic region, which is classified

as an ancient river valley filled with sands and shells from the Plio-Pleistocene age and is comprised of flatwoods and wet prairie with terraced landforms.

"Florida ranks second nationally in production and fourth in consumption of crushed stone (limestone and dolostone). Most of the stone that is mined in Florida is used for road construction. Florida ranks approximately 15th in the country in sand and gravel used or produced. Sand and gravel are subdivided into construction and industrial sand, the bulk of which is, in Florida, construction grade" (FDEP 2010). Sand and limestone mines are located within Lee County, Florida. Mining has not been conducted at CRP nor have any entities expressed an interest in mining the site.

iii. Topography

Lee County is located within the Coastal Lowlands of Florida that extend around the coastal periphery of the state where elevations are generally below 100 feet (Stubbs 1940; Cooke 1945).

The topography at CRP is best described as "low relief", ranging from a low of approximately 2' MSL (mean sea level) at the north bank of the Caloosahatchee River to approximately 32' MSL on the north side of the park (Figure 5). CRP occurs on the coastal lowlands topographic division and is a part of the DeSoto Plain physiographic zone.

The Caloosahatchee River has been dredged three times; the original dredging was sponsored by the state and funded by Hamilton Disston in the 1880s. The United States Army Corps of Engineers (USACOE) subsequently dredged the Caloosahatchee River from 1930-1937 and from 1960-1964. Spoil from the most recent dredging event was pumped to the north side of CRP and, as a result, the elevation on approximately 392 acres north of County Road 78 was artificially raised within a range of approximately 4 to 20+ feet above natural grade. This spoil area occupies more than half the entire site and constitutes a substantial alteration in topography. Other anthropogenic alterations include ditches and berms related to dredging and past agricultural uses of the land.

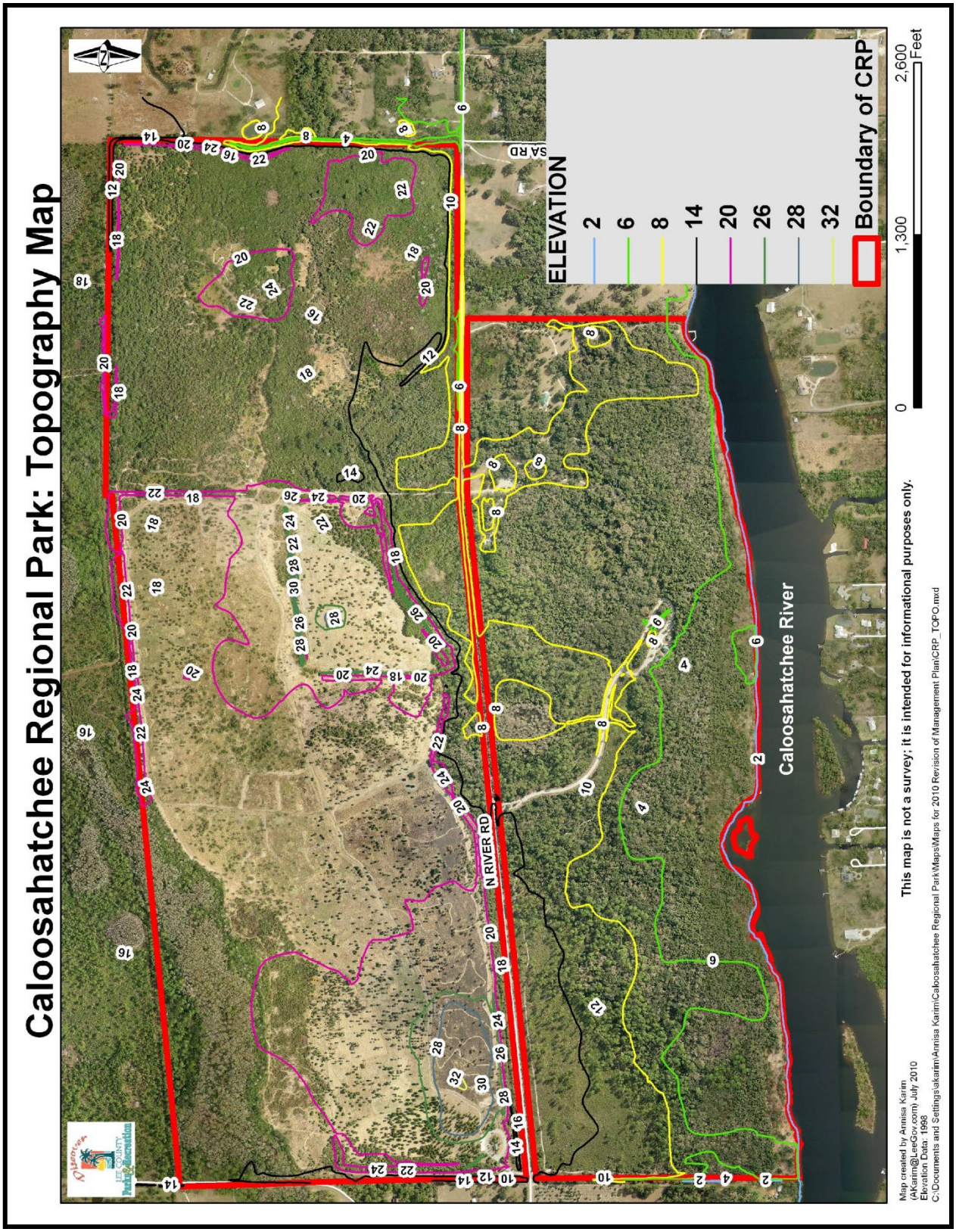


Figure 5: Topography Map for Caloosahatchee Regional Park (Data: 1998).

iv. Soils

The objective of soil mapping is to separate the landscape into landforms or landform segments that have similar use and management requirements (not to delineate pure map unit components). The U.S. Department of Agriculture (via the Natural Resources Conservation Service) and the SFWMD report nine different soil types at CRP (Table 2, Figure 6). In decreasing order of abundance, these soils are: Caloosa Fine Sand (dredge spoil); Bradenton Fine Sand; Copeland Sandy Loam, Depressional; Immokalee Sand; Wabasso Sand; Limestone Substratum; Wabasso Sand; Oldsmar Sand; Pineda Fine Sand, Depressional; and Boca Fine Sand. Table 2 provides the approximate acreages and percentages of CRP that each of these soils cover, whether each soil is considered hydric or not and each soil's general drainage class. Because of slight errors associated with the mapping of soils and interpretations within the ArcGIS program, the acreages and percentages provided are close approximations and communicate valuable information for stewardship and operations personnel. Soils data indicate that six of the nine soils found within CRP are non-hydric and make-up approximately 72% of the site. However, five of these non-hydric soils are designated as poorly drained. Caloosa Fine Sand, one of the non-hydric soils, is categorized as moderately well drained. Three of the nine soils found within CRP are categorized as hydric and are either poorly drained or very poorly drained.

In addition to the types of soil found in an area, environmental variables such as climate, topography, and hydrology influence the types of plant communities found there. It is not possible to correlate all the soil types on CRP with specific biological communities, but general correlations are given in the Natural Plant Communities section of this document.

Table 2: Coverage, Hydric Designation and Drainage Class of Soils within CRP.

Soil Type	Acres*	% of CRP	Hydric	Drainage Class
Caloosa Fine Sand (dredge spoil)	392	51.92	No	Moderately Well Drained
Bradenton Fine Sand	110	14.57	Yes	Poorly Drained
Copeland Sandy Loam, Depressional	86	11.39	Yes	Very Poorly Drained
Immokalee Sand	44	5.83	No	Poorly Drained
Wabasso Sand, Limestone Substratum	41	5.43	No	Poorly Drained
Wabasso Sand	36	4.77	No	Poorly Drained
Oldsmar Sand	25	3.31	No	Poorly Drained
Pineda Fine Sand, Depressional	17	2.25	Yes	Very Poorly Drained
Boca Fine Sand	4	0.53	No	Poorly Drained

**Due to rounding values, total acreages (and therefore percentages) may not equal the true acreage of CRP. These numbers are approximations.*

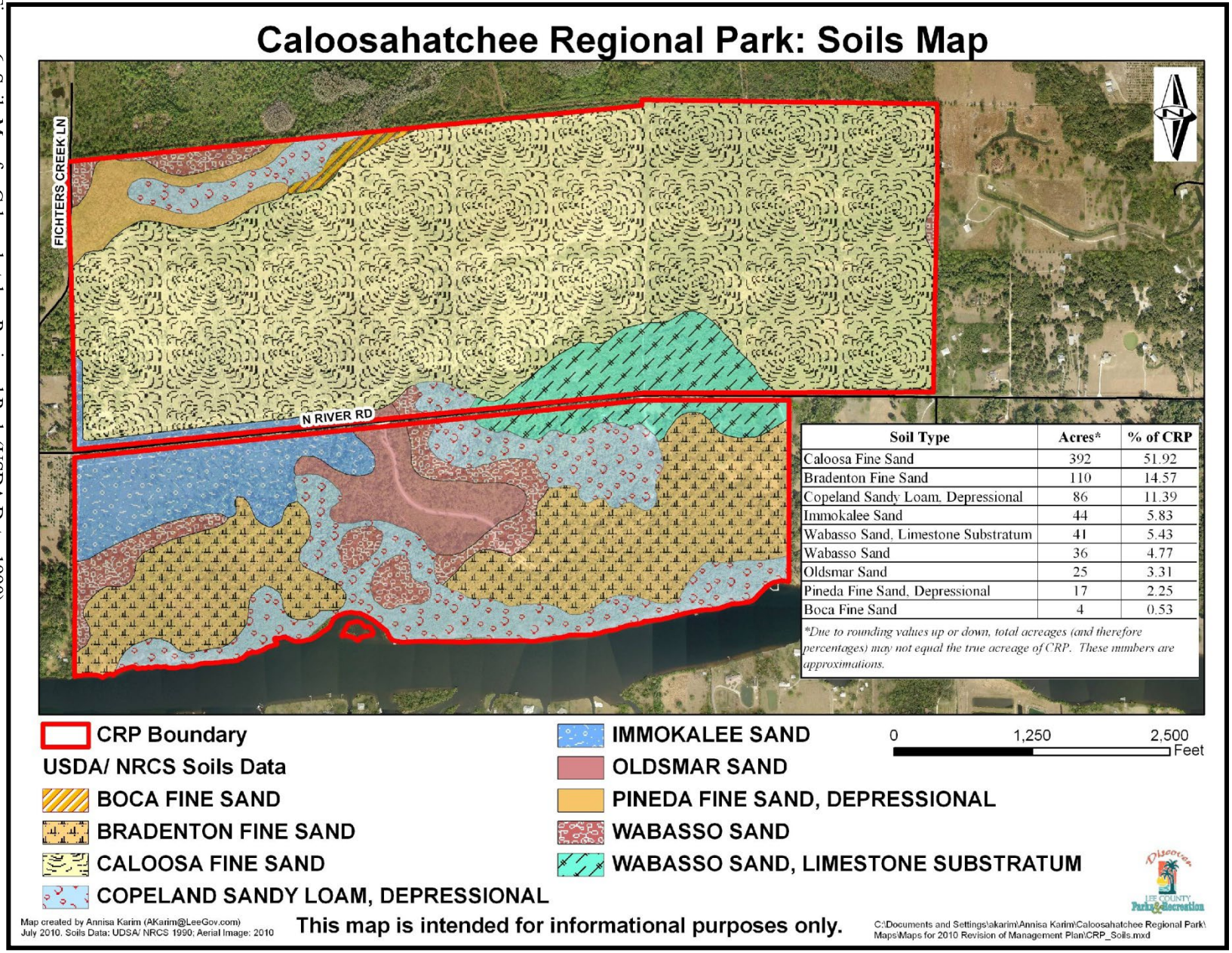


Figure 6: Soils Map for Caloosahatchee Regional Park (USDA Data: 1990).

v. Hydrology and Watershed

A watershed is a region draining into a specific body of water. Topography, geology, soils, biological communities, and anthropogenic alterations to a landscape influence the rate and way in which water drains. The SFWMD delineates watersheds within their boundaries. The SFWMD further delineates basins within each of these watersheds. The Caloosahatchee River watershed contains six (6) drainage basins. CRP lies within the West Caloosahatchee Basin of the Caloosahatchee River Watershed.

The Lee County Division of Natural Resources (LCDNR) divides Lee County into 48 different watersheds. These watersheds are based on a more refined scale compared to SFWMD's designations because LCDNR's area of monitoring and restoration is much smaller. According to LCDNR data, CRP lies within the Fichter's Creek Watershed and the Park Branch Watershed (Figure 7). The Fichter's Creek Watershed has a drainage area of 7.3 square miles. Fichter's Creek passes through the northwest corner of CRP and flows southwest into the Caloosahatchee River. The Park Branch Watershed has a drainage area of approximately 1.5 square miles. The drainage of the site has been altered by its use as a spoil deposit site, which resulted in altered topography and in a number of drainages, ditches, some of which flow directly into the river.

A "total maximum daily load" represents the maximum amount of a given pollutant that a waterbody can assimilate and still meet the waterbody's designated uses. A waterbody that does not meet its designated uses is defined as impaired". The Caloosahatchee River has been designated as an impaired waterbody by the FDEP (FDEP 2005). Hydrological considerations are a significant factor in land stewardship efforts at CRP relative to maintenance of the vegetation communities dependent on a wetland hydroperiod. Drainage of the park is mostly internal except for Fichter's Creek, located in the northwest corner of the park. The most conspicuous drainage feature is the Caloosahatchee River that forms the park's southern boundary. The SFWMD refers to the Caloosahatchee River as C43-Canal 43. The river presently functions and is managed more as a canal than a river. The original purpose of the dredging was to provide drainage and navigation. Since then, the river has become an important source for drinking water and irrigation for agriculture. The effects of the Caloosahatchee River channelization have been decreased flooding of the floodplain and increased use by large pleasure boats. Locks occur both upstream and downstream of the park. Located approximately 26 miles upstream of CRP, the Ortona Lock and Spillway (S-78) in Moore Haven, Florida helps to control water levels on adjacent lands upstream and separates the Caloosahatchee River (C-43 canal) into eastern and western basins. Approximately two miles downstream of the park is the Franklin Lock and Dam (S-79) which artificially separates the fresh water of the Caloosahatchee River from the salt water of the estuary and marks the beginning of the 30-mile tidal basin of the Caloosahatchee River. The portion of the river along CRP is primarily freshwater and water levels are influenced by discharges from Lake Okeechobee and the operation of the locks.

In 1974, the United States Fish and Wildlife Service (USFWS) directed its office of Biological Services to conduct an inventory of the nation's wetlands. This National Wetlands Inventory (NWI) became operational in 1977. Wetlands were identified on the photography by vegetation, visible hydrology, and geography, and subsequently classified in general accordance with the Classification of Wetlands and Deep-Water Habitats of the United States (Cowardin et al. 1979). Federal agencies, state agencies, local agencies, academic institutions, and private industry use this information for management, research, policy development, education, and planning activities.

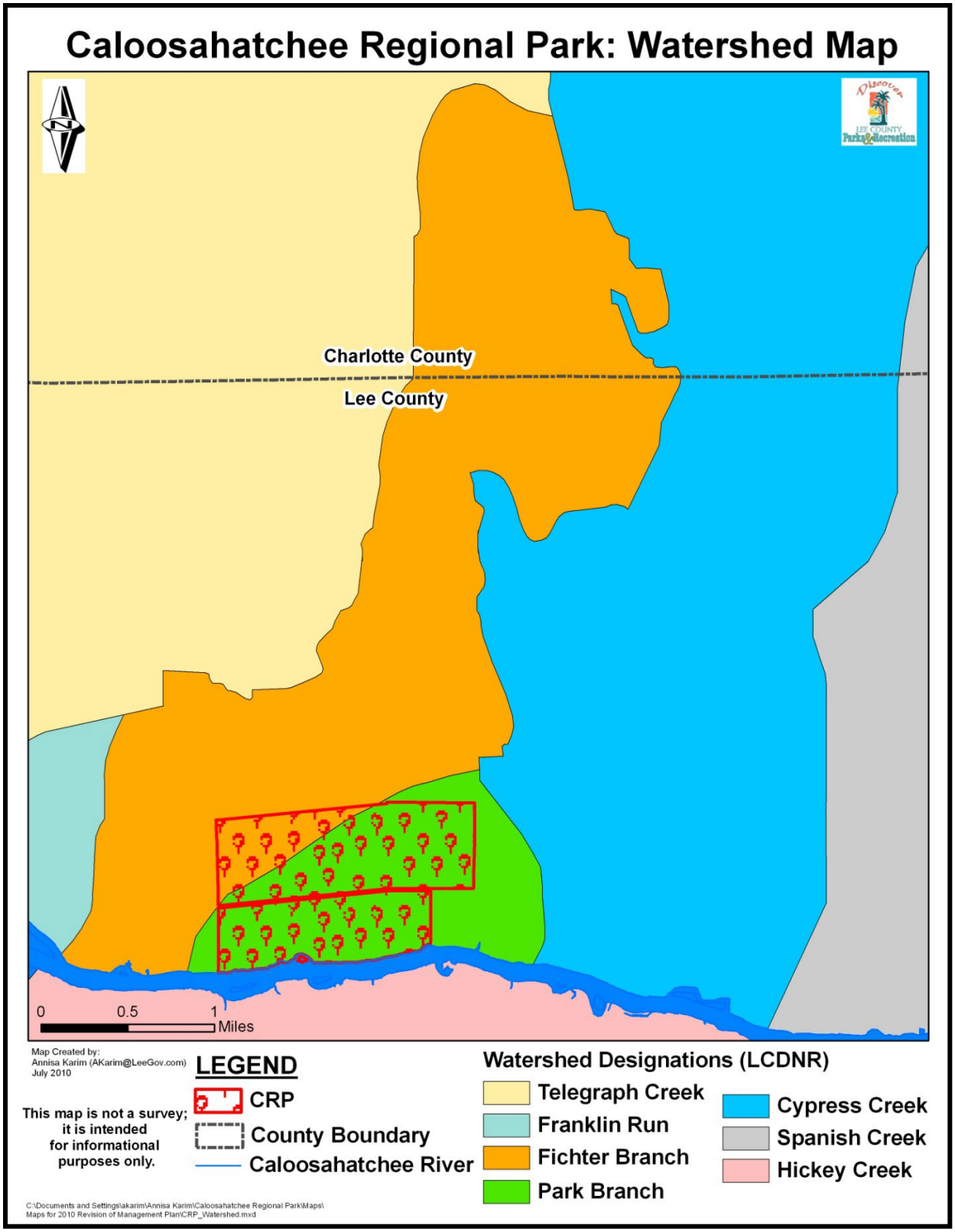


Figure 7: LCDNR Watershed Map.

Figure 8 identifies the variety of palustrine wetlands as identified by NWI in 1999. Palustrine wetlands are often called swamps, marshes, potholes, bogs, or fens. These systems are all non-tidal wetlands dominated by trees, shrubs, persistent emergent aquatic plants, emergent mosses, or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%. The majority of palustrine wetlands on CRP are forested. Forested wetlands are characterized by woody vegetation that is 6 meters (19.6 feet) tall or taller. These areas typically have an overstory of trees, an understory of young trees or shrubs and an herbaceous layer.

In addition to the wetlands identified by the NWI data, hydric pine flatwoods are identified in the northwest corner of CRP by the SFWMD land use data from 2004 (Figure 9). This designation and other land use designations made by the SFWMD dataset are discussed in the Natural Plant Communities section of this document.

There are no Florida Special or Outstanding Waters within the boundary of CRP. Additionally, CRP is not included as an Area of Critical State Concern or Aquatic Preserve nor is it under study for such a designation.

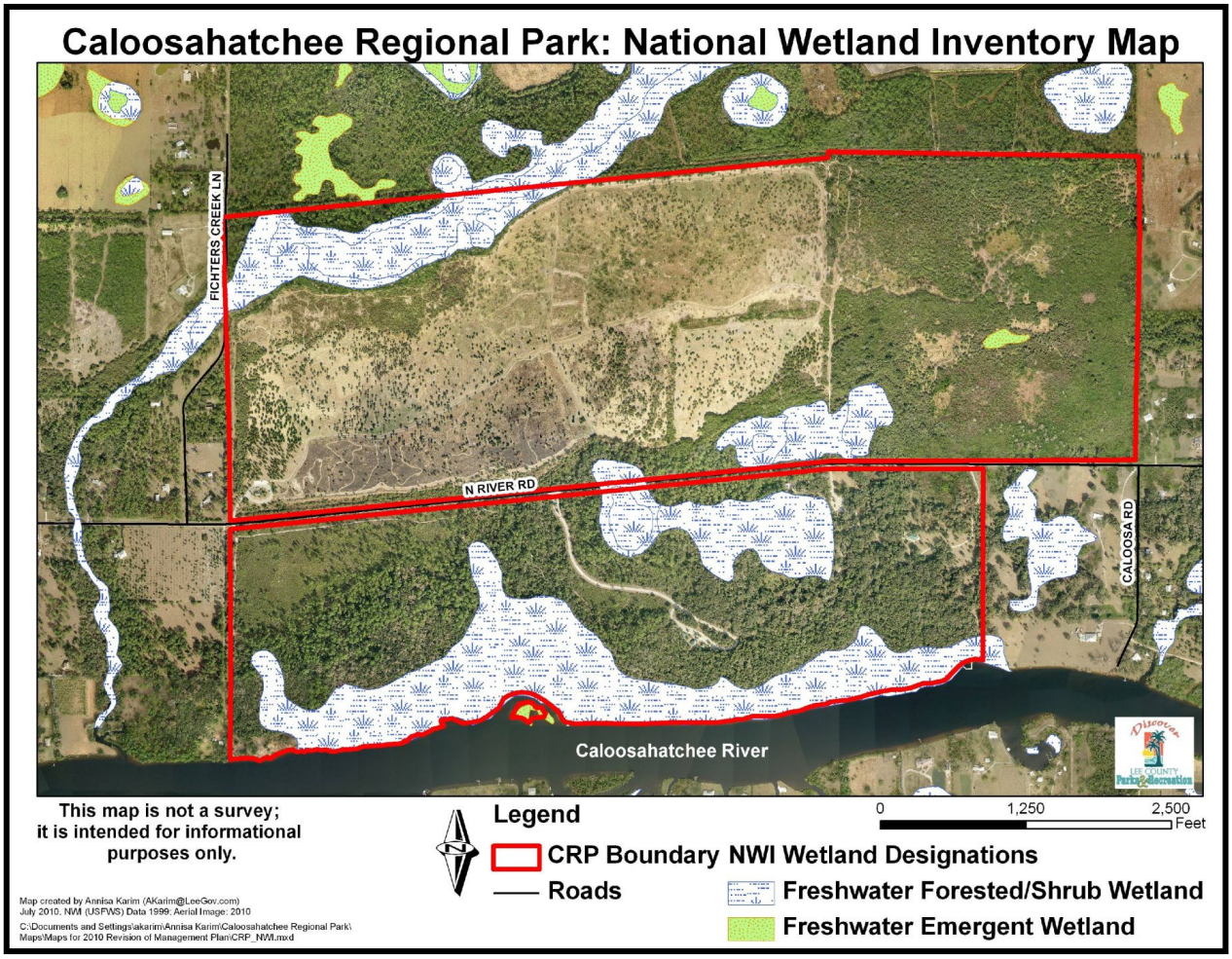


Figure 8: National Wetland Inventory Map of CRP.

B. Biological Resources

i. Ecosystem Function

Ecosystem services such as the protection of water resources, flood control, maintenance of nutrient cycles, preservation of biological diversity, carbon sequestration, and the availability of recreational lands are imperative for the well-being of the citizens of Lee County and may be achieved through the preservation and appropriate stewardship of natural areas.

Lee County's approach to resource management can be described as "natural systems management". This approach is aimed at managing the natural communities of each unit as parts of an interrelated system, rather than managing for the benefit of individual species. The general composition of each community, as it may have appeared at the beginning of Florida's historical period, is determined by considering factors such as climate, geology, soil, hydrology, and fire frequency. Measures are then implemented to recreate, to the highest extent possible, the natural processes and conditions that prevailed at that time, with the goal of restoring each community to its "original" condition. At CRP, portions of the biological communities within the park were harshly impacted in the recent past. These natural systems will require both time and effort for restoration to succeed. However, burning fire-adapted communities, controlling exotic species, preventing anthropogenic erosion, restoring surface water regimes, and other such measures will assist in their eventual recovery to a level closer to original natural conditions than presently occur. The acquisition and preservation of the 5,620-acre Bob Janes Preserve (Lee County's portion of the Babcock Ranch Preserve) in July 2006 by Lee County at a cost of $41.5 million dollars provides an additional buffer to CRP and greatly increases available habitat for wildlife. In April of 2021, two additional parcels were added to Bob Janes Preseve, bringing the total for Bob Janes Preserve to 5,895.

The most significant natural and cultural feature of the park is the Caloosahatchee River. Local and intracoastal boat traffic use the Caloosahatchee heavily, along with tour boats from Fort Myers.

CRP contains a diversity of plant communities. The "north side" is heavily impacted due to the deposition of dredge spoils onto the land. Because of the increased elevation and the atypical soils (for a terrestrial area), this portion of CRP has proven to be a serious management problem since the park came under the jurisdiction of Lee County Parks and Recreation in May 1989. Exotic vegetation has dominated the site in the past and exotic grasses currently are the most egregious problem creating a consistent monoculture over much of the site. Wildlife documented on the north side include the federally threatened Audubon's crested caracara (*Caracara cheriway*) and eastern indigo snake (*Drymarchon couperi*), white-tailed deer (*Odocoileus virginianus*), wild turkey (*Meleagris gallopavo*), and bobcat (*Lynx rufus*). The "south side" remains an intact system, but continues to be impacted by invasive, exotic vegetation including Brazilian pepper (*Schinus terebinthifolia*), shoebutton ardisia (*Ardisia elliptica*), rosary pea (*Abrus precatorius*), Caesar's weed (*Urena lobata*), old world climbing fern (*Lygodium microphyllum*), Japanese climbing fern (*Lygodium japanicum*), and Guineagrass (*Urochloa maximum*). This portion of the park is home to a variety of bird species including barred owls (*Strix varia*), northern bobwhite (*Colinus virginianus*), and red-shouldered hawk (*Buteo lineatus*).

ii. Natural Plant Communities

The term "plant community" refers to the suite of floristic species that form the natural (i.e., native) vegetation of any place. In addition to anthropogenic influences, the combination of factors such as geology, topography, hydrology, underlying soils, and climate determine the types of plants found in an area. These plants, in turn determine the animal species that may be found there.

The Florida Natural Areas Inventory (FNAI) first published a "Guide to the Natural Communities in Florida" in 1990, alongside the Florida Department of Natural Resources (now known as the Florida Departmnet of Environmnetal Protection). The most recently updated of the FNAI guide includes 45 land-based communities, eight of which are found at CRP. (Table 3, Figure 9).

The park contains of a wide variety of plant communities ranging from scrubby flatwoods to dome swamps (Figure 9). The following descriptions of the plant communities from FNAI list the dominant plants and characteristic animals found within each plant community community. Table 3 lists these communities in order of decreasing abundance within CRP. A list of plant species documented to date may be found in Appendix D.

Table 3: FNAI Communities Sorted by Decreasing Coverage

Category	Natural Community	Acres*	% of CRP
Altered Landcover	Invasive Exotic Monoculture	435	57.22%
Freshwater Forested Wetlands	Hydric Hammock	132	17.29%
Pine Flatwoods	Mesic Flatwoods	81	10.60%
Hardwood Forested Uplands	Mesic Hammock	62	8.09%
Altered Landcover	Impoundment/Artificial Pond	18	2.32%
Pine Flatwoods	Scrubby Flatwoods	16	2.06%
Freshwater Forested Wetlands	Strand Swamp – Disturbed	15	1.99%
Freshwater Forested Wetlands	Dome Swamp	3	0.43%

**Due to rounding values, total acreages (and therefore percentages) may not equal the true acreage of CRP. These numbers are approximations.*

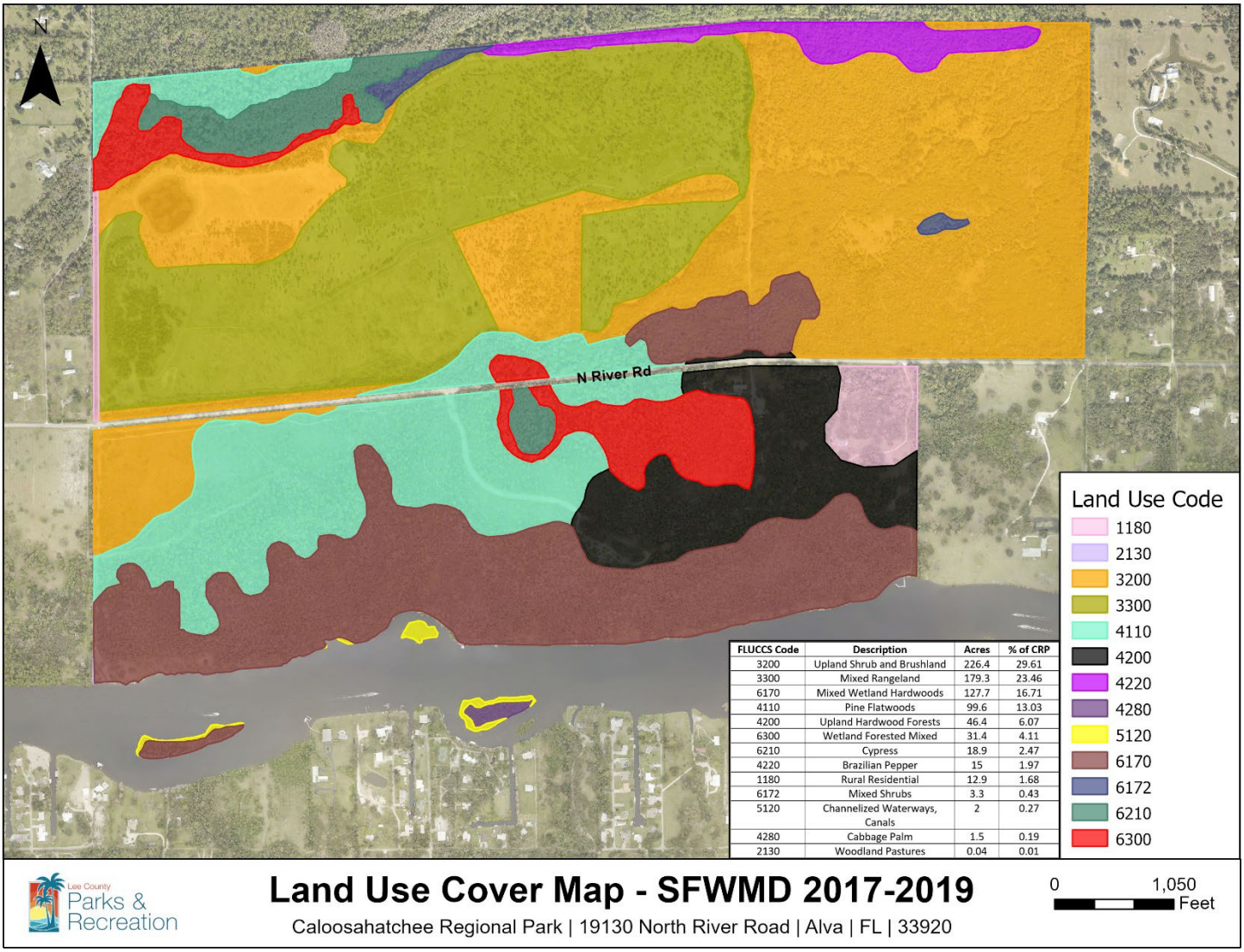


Figure 9: Plant Communities Map for CRP.

Freshwater Forested Wetlands; 150 acres; 19.71% coverage of CRP

Hydric Hammock (132 acres; 17.29% coverage of CRP):

Strand Swamp – Disturbed (15 acres; 1.99% coverage of CRP):

Dome Swamp (3 acres; 0.43% coverage of CRP):

Pine Flatwoods; 97 acres; 12.66% coverage of CRP

Mesic Flatwoods (81 acres; 10.60% coverage of CRP):

Scrubby Flatwoods (16 acres; 2.06% coverage of CRP):

Hardwood Forested Wetlands; 62 acres; 8.09% coverage of CRP)

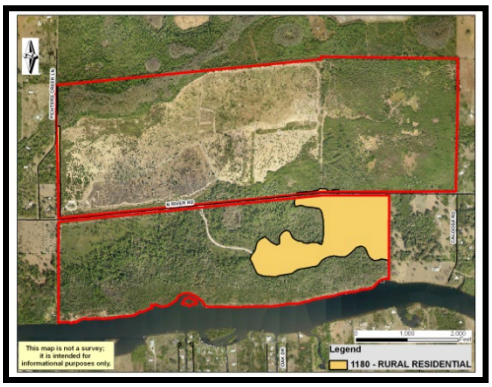
Mesic Hammock (62 acres, 8.09% coverage of CRP):

Altered Landcover; 453 acres; 59.54% coverage of CRP

Invasive Exotic Monoculture (435 acres; 57.22% coverage of CRP):

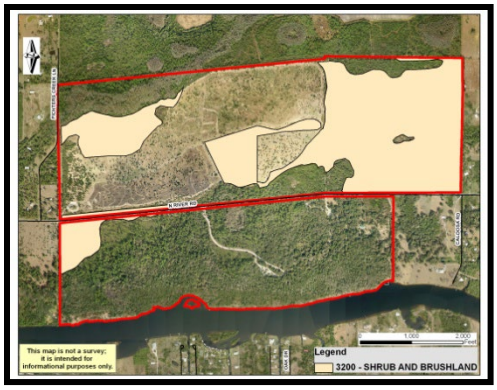
Impoundment/Artificial Pond (18 acres; 2.32% coverage of CRP):

Urban and Built-Up: FLUCCS 1180; 61-acres; 8.04% coverage of CRP



Rural Residential (FLUCCS 1180; No FNAI Classification; 61-acres; 8.04% coverage of CRP): The area classified as Rural Residential is located south of C.R. 78 within the eastern portion of the site (see image to the right). It curves around mixed forested wetlands and meanders west, encompassing the parking area of the main entrance. Bradenton Fine Sand, Wabasso Sand (Limestone Substratum), Copeland Sandy Loam (Depressional), Wabasso Sand and Oldsmar Sand form the substrate of this community. Previously classified as woodland pasture, the community is in various stages of ecological succession with dominant vegetation varying from bahiagrass *(Paspalum notatum*) to live oak. Other species occurring in this community are cabbage palm (*Sabal palmetto*), slash pine (*Pinus elliottii* var. *densa*), saw palmetto (*Serenoa repens*), groundsel (*Baccharis halimifolia*), Brazilian pepper, rosary pea, greenbriar (*Smilax* sp.) wild coffee (*Psychotria nervosa*) and wax myrtle (*Myrica cerifera*). Many of the park's heavily used facilities are located within this community including all the campsites, the lodge, three of the restrooms, showers, the maintenance compound, both office areas, picnic pavilions and water supply areas. Additionally, some hiking trails are also located on this portion of CRP. Due to the heavy public use of this area, the main stewardship goal is the control of exotic, invasive plants.

Rangeland: FLUCCS 3200 and 3300; 404-acres; 53.23% coverage of CRP



Shrub and Brushland (FLUCCS 3200; FNAI Classification – Dry Prairie; 225-acres; 29.64% coverage of CRP): The image to the right highlights the three areas within CRP designated with FLUCCS code 3200. Also called palmetto prairies, dry prairies are nearly treeless areas characterized by a dense groundcover of saw palmetto, grasses, herbs, and low shrubs. Native plants include love grass (*Eragrostis elliottii*), blazing star (*Liatris* spp.), pawpaw (*Asimina reticulata*), tarflower (*Bejaria racemosa*), shiny blueberry (*Vaccinium myrsinites*), American beautyberry (*Callicarpa americana*) gallberry *(Ilex glabra*) and fetterbush (*Lyonia lucida*). The natural fire frequency of dry prairies appears to be every 1-2 years (FNAI 2010) which is the interval recommended for these areas within CRP. However, it will not be possible to burn areas heavily infested with Brazilian pepper until this invasive species is further controlled.

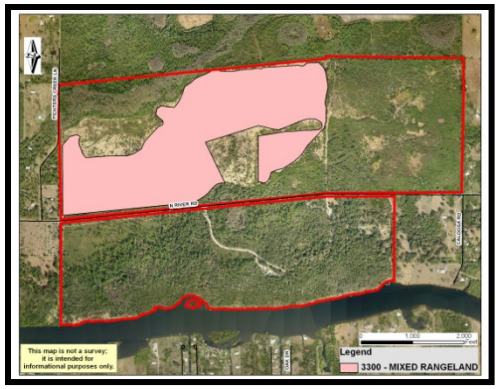
The shrub and brushland area on the south side of C.R. 78 near the western boundary encompasses 16.5-acres. Saw palmetto is dominant throughout the area with a scattered overstory of slash pine on the eastern portion. Immokalee Sand underlies this portion of CRP. Other plant species associated with this area are consistent with those listed in the previous paragraph. Animals detected in this community within CRP include the Florida box turtle (*Terrapene carolina bauri*), bobcat, loggerhead shrike (*Lanius ludovicianus*) and gopher tortoise. Invasive, exotic flora present in this community include Caesarweed (*Urena lobata*), Brazilian pepper and Guineagrass.

The remaining 205-acres of shrub and brushland (dry prairie) are found on the north side of CRP. Approximately 3.5-acres of this community exists along the southern boundary of the north side just east of the parking lot and west of the mesic flatwood. Approximately 31-acres of dry prairie lies on the western portion of the north side of CRP approximately 0.2 miles north of C. R. 78. Caloosa Fine Sand (dredge spoil) underlies this area and subsequently has altered the expected floral species composition of this area. Saw palmetto is sporadic in this area. Dominant vegetation includes Brazilian pepper, groundsel, wax myrtle, live oak, slash pine and cabbage palm. Trails run throughout the spoil area on the north side of C.R. 78. Guineagrass, cogongrass (*Imperata cylindrica*) and napiergrass (*Pennisetum purpureum*), all invasive exotic species, have invaded some of the area from which Brazilian pepper was removed by heavy equipment in 1995-1996. Crested caracaras have been detected in this portion of CRP. The eastern 160-acres of the north side of the park is heavily infested with Brazilian pepper; it will not be possible to burn this area until the Brazilian pepper is further controlled.

The LCDNR and Community Engineering Services, Inc are undertaking the Fichter's Creek Restoration Project. A goal of this project is to restore the appropriate hydroperiod and water quality within Fichter's Creek to maintain a functioning ecosystem. Additional benefits include alleviating risks of the flooding of neighboring properties in the vicinity of Fichter's Creek. This 31-acre dry prairie is targeted to hold an approximately 3.2-acre lake and three dry detention areas totaling approximately 7.1-acres associated with this project.

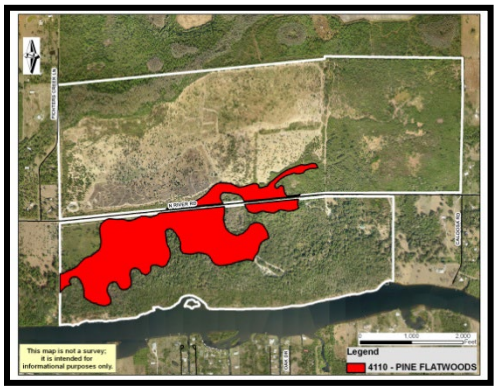
Another 174-acres with the FLUCCS designation of 3200 constitutes much of the eastern portion of the park (north of C. R. 78). Caloosa Fine Sand (dredge spoil) underlies much of this area. Wabasso Sand, Limestone Substrate underlies a small portion in the southwest corner of the 174-acre segment designated as shrub and brushland. Dominant vegetation on the entire 174-acre portion includes Brazilian pepper (heavy infestation), red maple (*Acer rubrum*), hackberry (*Celtis laevigata*) wax myrtle, live oak, slash pine and cabbage palm. Guineagrass, cogongrass and napiergrass, all invasive exotic grasses, also exist here. Brazilian pepper is the most problematic exotic species in this area. The small area that contains Wabasso Sand, Limestone Substrate tends to hold water for longer periods of time and contains wetland plants. In effect, it functions like a wetland. Animal species detected on this portion of CRP include gopher tortoises, Audubon's crested caracaras, white-tailed deer, a variety of warblers and vireos and red-shouldered hawks. All the intermediate and advanced level mountain bike trails are found in this area as are some of the equestrian trails.

Mixed Rangeland (FLUCCS 3300; FNAI Classification – Dry Prairie; 179-acres; 23.58% coverage of CRP): The image to the right highlights the area within CRP designated with FLUCCS code 3300. Like shrub and brushlands, FNAI classifies mixed rangelands as dry prairie systems. Caloosa Fine Sand (dredge spoil) underlies this portion of CRP and subsequently has altered the expected floral species composition of this area. Dominant vegetation includes wax myrtle, red cedar (*Juniperus virginiana*), live oak, slash pine, cabbage palm and Brazilian pepper. Guineagrass, cogongrass and napiergrass are also problem species in this area. The red cedar was planted on approximately 6-acres of the southwest portion of this community on CRP. As with the community described above, the natural fire frequency of dry prairies appears to be every 1-2 years (FNAI 2010) which is the interval recommended for these areas within CRP. However, it will not be possible to burn areas heavily infested with Brazilian pepper until this invasive species is further controlled. Animal species detected on this portion of CRP include gopher tortoises, Audubon's crested caracaras (foraging and nesting), white-tailed deer, a variety of warblers and vireos and red-shouldered hawks. All of the beginner (easy) level mountain bike trails are found in this area as are some of the equestrian trails. Additionally, the entrance gate and parking area for the north side are located in the southwest portion of this community on CRP.



Upland Forests: FLUCCS 4110 and 4220; 107-acres; 14.10% coverage of CRP

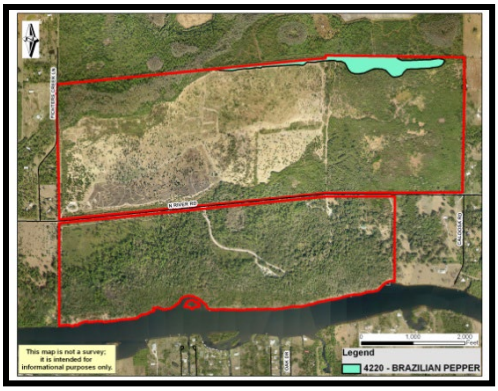
Pine Flatwoods (FLUCCS 4110; FNAI Classification – Mesic Flatwoods; 93-acres; 12.25% coverage of CRP): The mesic flatwood within CRP is divided by C. R. 78; most of this community is located on the south side of the park. Synonyms for this plant community include pine flatwoods and pine savannahs. Mesic flatwoods occur on relatively flat, moderately to poorly drained soils. Standing water is common for brief periods during the rainy season. Mesic flatwoods are characterized by an open canopy of tall pines and a dense, low ground cover of herbs and shrubs (FNAI 2010). Typical plants growing in these communities at CRP include south Florida slash pine, live oak, laurel oak, cabbage palm, saw palmetto, gallberry, wax myrtle, and muhly grass (*Muhlenbergia capillaris*). Exotics present include Brazilian pepper, rosary pea, natalgrass (*Melinis repens,* synonym *Rhynchelytrum repens*) and Guineagrass. Animals that have been documented in the mesic flatwoods at CRP include the gopher tortoise, pileated woodpecker (*Dryocopus pileatus*), eastern cottontail rabbit (*Sylvilagus floridanus*), bobcat, raccoon, Florida black bear (*Ursus americanus floridanus*) and the northern bobwhite quail.



South Florida slash pine provides a unifying character to a number of sub-communities at CRP with varying soils, elevation and understory. Bradenton Fine Sand, Immokalee Sand, Wabasso Sand (Limestone Substratum), Wabasso Sand and Oldsmar Sand underlie the mesic flatwood community within CRP. Caloosa Fine Sand is a minimal component of this community. Mesic flatwoods probably experienced fire every 1-8 years during pre-Columbian times (FNAI 1990). Without frequent fires, mesic flatwoods will succeed into hardwood dominated forests whose closed canopy will gradually eliminate the groundcover of herbs and shrubs. On the other hand, high frequency or intensity fires would eliminate pine recruitment and eventually transform the mesic flatwoods into palmetto prairie. A fire interval of 1-8 years will be the recommended stewardship goal for this community within CRP.

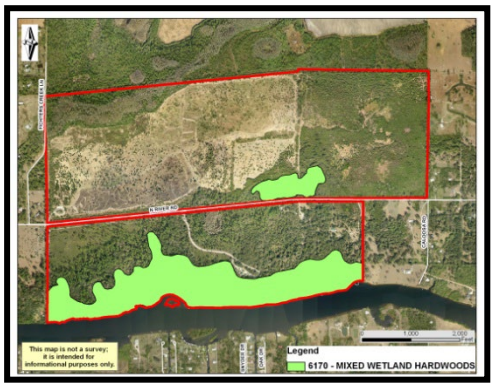
A majority of the Palmetto Path hiking trail and the northern section of the main entrance road at CRP are located within this community.

Brazilian Pepper (FLUCCS 4220; FNAI Classification – Upland Hardwood Forest; 14-acres; 1.84% coverage of CRP): The upland hardwood forest is located along the eastern portion of the northern boundary of CRP. Mountain bike and equestrian trails occur on this upland hardwood community within CRP. Caloosa Fine Sand (dredge spoil) underlies this portion of CRP and subsequently has altered the expected floral species composition of this area. Native trees extant on this area include live oak, laurel oak and cabbage palm. Brazilian pepper along with invasive grasses such as Guineagrass and cogongrass present a stewardship challenge on this portion of CRP. This upland hardwood forest is markedly higher in elevation than the areas to its south.



Typically, upland hardwood forests are well-developed, closed-canopy forests dominated by deciduous hardwood trees on mesic soils in areas sheltered from fire. They usually have a diverse assemblage of deciduous and evergreen tree species in the canopy and midstory, shade-tolerant shrubs, and a sparse groundcover. Characteristic canopy trees for southwest Florida include swamp bay (*Persea palustris*), live oak and laurel oak (*Quercus laurifolia*). The midstory layer is composed of younger canopy species as well as small trees, and tall shrubs while the groundcover is composed of shade-tolerant herbs, graminoids and vines (FNAI 2010). Upland hardwood forest occurs on rolling mesic hills, slopes above river floodplains, in smaller areas on the sides of sinkholes, and occasionally on rises within floodplains. Limestone or phosphatic rock may be near the surface. Soils are generally sandy clays or clayey sands with substantial organic and sometimes calcareous components. These soils have higher nutrient levels than the sandy soils prevalent in most of Florida. The moisture retention properties of clays and layers of leaf mulch conserve soil moisture and create decidedly mesic conditions. The dense canopy and multiple layers of midstory vegetation restrict air movement and light penetration, which maintains high relative humidity within the community (FNAI 2010).

Wetlands: FLUCCS 6170, 6210, 6250, 6300 and 6410; 186-acres; 24.51% coverage of CRP



Mixed Wetland Hardwoods (FLUCCS 6170; FNAI Classification – Hydric Hammock; 124-acres; 16.34% coverage of CRP): Hydric hammock occurs on two areas of CRP. The hydric hammock along the southern boundary of the north side (north of C. R. 78) of CRP is 14-acres in size. Wabasso Sand (Limestone Substratum) underlies this entire northern, hydric hammock. The hammock along the southern border of CRP on the north side of the Caloosahatchee River spans the entire southern boundary of the park and is 110-acres in size. Copeland Sandy Loam (Depressional), Wabasso Sand and Bradenton Fine Sand form the soils of the southern, hydric hammock. Oldsmar Sand also minimally underlies the larger hydric hammock. A service road (pit shell) traverses the northern hammock in a north – south direction. The southern hydric hammock contains portions of the Palmetto Path, River Hammock and the Campground to Kayak Launch hiking trails. The Shoreline, Oxbow and Overlook Trails are entirely within this hammock.

FNAI (2010) categorizes hydric hammocks (modified to describe CRP) as an evergreen hardwood and/or palm forest community with a variable understory typically dominated by palms and ferns occurring on moist soils, often with limestone very near the surface. While species composition varies, the community generally has a closed canopy of oaks and palms, an open understory, and a sparse to a moderate groundcover of grasses and ferns. The canopy is dominated by cabbage palm, live oak, and laurel oak. Red maple, water hickory (*Carya aquatica*), American elm (*Ulmus americana*), hackberry and wax myrtle are frequent associates in this diverse community. A small (1.3-acres) tropical hammock is located near the southeast corner of the property near the river. Strangler fig (*Ficus aurea*), cabbage palm, and white stopper (*Eugenia axillaries*) are the dominant species. Animals detected on these communities include gopher tortoises, birds of prey and a variety of warblers and vireos. Exotic species include Brazilian pepper, Guineagrass, cogongrass and rosary pea. These areas are also heavily impacted by feral hog (*Sus scrofa*) activity – especially the southwestern portion of the southern hydric hammock.

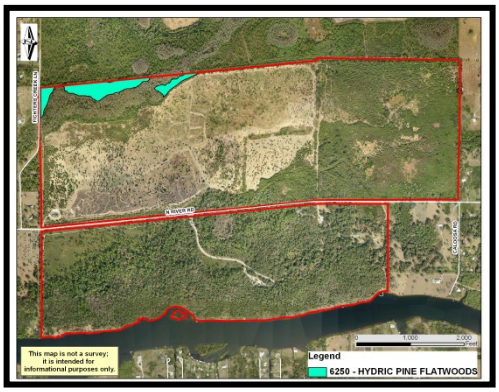
Cypress (FLUCCS 6210; FNAI Classification – Strand Swamp; 18-acres; 2.37% coverage of CRP): Strand swamp communities occur on two areas of CRP and are devoid of public access trails. The strand swamp along the northern boundary of the south side of CRP is 3-acres in size. Copeland Sandy Loam, Depressional and Wabasso Sand form the substrate of this southern cypress area. The strand swamp on the northwestern portion of the north side of CRP is 15-acres in size. Pineda Fine

Sand (Depressional) and Copeland Sandy Loam (Depressional) form the soils of this northern cypress area. Boca Fine Sand also minimally constitutes the substrate of this community. Fichter's Creek's well-defined flow channels, in the northwest corner of the site, as well as its width of approximately 150-feet, give it characteristics of both a stream and a slough. The stream channels may have become more defined due to the dredging of the Caloosahatchee with a resultant increased capacity to convey run-off from its tributaries, particularly at flood stages. The cypress community occurs within the main slough/stream channel area.

FNAI (2010) characterizes strand swamps as shallow, forested, usually elongated depressions or channels situated in a trough within a flat limestone plain, and dominated primarily by bald cypress (*Taxodium distichum*). Smaller strand swamps and shallow edges may instead contain pond cypress (*T. ascendens*). The variable woody understory contains a mixture of temperate and tropical elements including red maple, pond apple (*Annona glabra*), laurel oak, cabbage palm, strangler fig, swamp bay , coastalplain willow (*Salix caroliniana*), wax myrtle, myrsine (*Rapanea punctata*), and common buttonbush (*Cephalanthus occidentalis*). Other species present on these cypress areas of CRP include popash (*Fraxinus caroliniana*), cabbage palm and swamp tupelo (*Nyssa sylvatica* var. *biflora*). Exotics present in the strand swamps on CRP include Brazilian pepper, shoebutton ardisia and Caesarweed. Guineagrass and cogongrass may also be found on the periphery of these communities. These areas are also heavily impacted by feral hog activity.

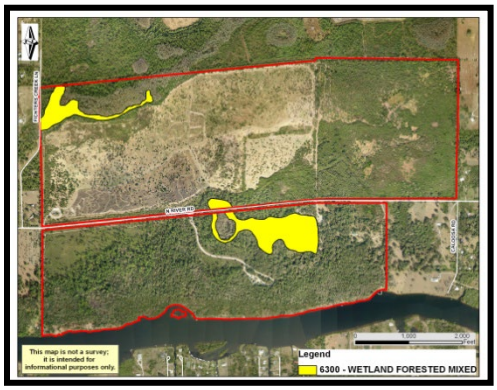
FNAI (1990) states that, "Fire occurs in Strand Swamp on a cycle of perhaps 3-200 years, with the largest trees on the deepest peat towards the center of the strand burning least frequently. Fire is essential for maintenance of this natural community; without fire, hardwood invasion and peat accumulation would convert the strand to Bottomland Forest in a few hundred years. Cypress is very tolerant of light surface fires, but muck fires burning into the peat can kill the trees, lower the ground surface, and transform a Strand into a Slough".

Hydric Pine Flatwoods (FLUCCS 6250; FNAI Classification – Wet Flatwoods; 11-acres; 1.45% coverage of CRP): The wet flatwoods community on CRP constitutes approximately 1.45% of the entire site and is located on the northwest corner of the park. The 11-acres of wet flatwoods is divided among two pieces; the western piece totals 9-acres (due to the scale of the image, figure to the right makes it look like three separate pieces) and the eastern portion is 2-acres in size (looks like a check mark). Both portions are devoid of public access trails. The western 9-acres is associated with floodplain swamps (described in the following section) and strand swamps. Wabasso Sand and Pineda Fine Sand, Depressional constitute the substrate of these 9-acres. The eastern 2-acres are associated with strand swamps and dry prairie to its south. Boca fine sand and Copeland sandy loam, depressional forms the substrate of the eastern 2-acres.

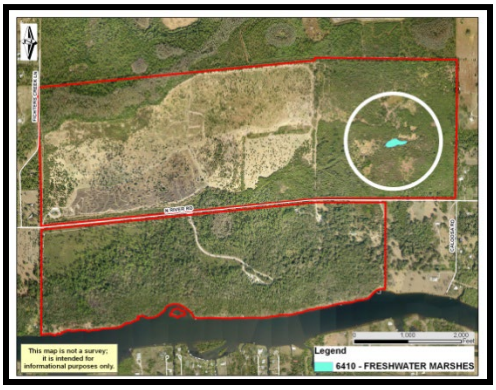


Wet flatwoods are characterized as relatively open canopies of scattered pine or cabbage palms with

either thick, shrubby understory with very sparse groundcover, or a sparse understory and a dense groundcover of hydrophytic herbs and shrubs. Plants in this community include slash pine, sedges, dwarf wax myrtle, gallberry, saw palmetto and bluestem (*Andropogon* spp.). Shrubs tend to dominate where fire has been absent for a long period or where cool season fires predominate; herbs are more abundant in locations that are frequently burned (FNAI 2010). Exotics present in these areas of CRP include Brazilian pepper and Caesarweed. At CRP a variety of small and reptiles, amphibians and small mammals use this area.



Wetland Forested Mixed (FLUCCS 6300; FNAI Classification – Floodplain Swamp; 32-acres; 4.22% coverage of CRP): The 32-acres of floodplain swamp within CRP are made up of two areas. The portion in the northwest corner of the property is 10-acres in size and the substrate is composed of Pineda Fine Sand, Depressional, Copeland Sandy Loam, Depressional and minimally by Boca Fine Sand. County Road 78 divides the 22-acres of floodplain swamp east of the main entrance road to CRP. Copeland Sandy Loam, Depressional and Wabasso Sand underlie these 22-acres. These communities typically occur on flooded soils along stream channels and low spots in river floodplains. Dominant trees include bald cypress and pond cypress with sparse understory and ground cover. Other typical plants that occur within these communities include are wax myrtle, dahoon holly (*Ilex cassine*) and greenbriar (FNAI 2010). These sites are typically flooded for most of the year. Exotics in this community include shoebutton ardisia, scattered melaleuca (*Melaleuca quinquenervia*) and Brazilian pepper. These areas are also heavily impacted by feral hogs (especially the southern floodplain swamp). All floodplain swamps within CRP have been compromised due to hydrologic alterations including canal construction and road construction which alters sheet flow and drainage patterns. Oaks and pines have encroached into the cypress system along with cabbage palm.



Freshwater Marshes (FLUCCS 6410; FNAI Classification – Marl Prairie; 1-acre; 0.13% coverage of CRP): The area classified as a marl prairie within CRP occupies 1-acre on the north side of the park. Caloosa Fine Sand (dredge spoil) forms the substrate of this area and subsequently has altered its expected floral species composition. Cabbage palms and south Florida slash pine are the dominant canopy species. Brazilian pepper, Guineagrass and cogongrass have highly degraded this wetland. This area also contains mountain bike trails and an equestrian trail. Due to the dredge spoil that underlies this area and the recreational trails present, it is unlikely that this area will be restored to a marl prairie.

iii. Fauna

The animal species detected within CRP are, in part, a result of the diverse plant communities extant on the park, CRP's location in a rural portion of the county and its continuity and proximity to other natural areas. CRP has a high diversity of fauna including numerous state and federally listed wildlife. Appendix E has the complete list of vertebrates recorded to date within the park (records based on observations by qualified staff and the Lee County Bird Patrol volunteer program).

Recent bird species observed within CRP include Audubon's crested caracara, wood storks (*Mycteria americana*) and a variety of warblers and vireos. Florida scrub-jays (*Aphelocoma coerulescens*) have been recorded historically. Documented reptile species include the gopher tortoise, Florida cottonmouth (*Agkistrodon piscivorus conanti*) and the American alligator (*Alligator mississippiensis*). Mammal species detected include white-tailed deer, bobcats, Florida panthers (*Puma concolor coryi*) and Florida black bears.

Four, exotic vertebrate species have been documented within CRP (Table 4). While all of these animals have some degree of impact on the native plants and animals at the park, the feral hog is of primary concern. Feral hogs are generalists in both their diet (omnivores) and their ability to adapt to a variety of environments. Their rooting behavior "loosens the soil and accelerates erosion, sets back plant succession, reduces earthworm activity, and exacerbates exotic plant invasion" (Mungall, 2001). Lee County currently funds a hog trapper to remove feral hogs from county parks and preserves.

Table 4: Exotic, Vertebrate Species Detected within CRP.

Scientific Name	Common Name
Osteopilus septentrionalis	Cuban tree frog
Anolis sagrei	brown anole
Dasypus novemcinctus	nine-banded armadillo
Sus scrofa	feral hog

Stewardship activities at CRP will focus on providing optimal habitat for native wildlife. Restoration of the disturbed areas, control of invasive exotics and application of prescribed fire (within the appropriate communities at appropriate intervals) will be critical restoration components to provide improved habitat for wildlife.

iv. Designated (Listed) Species

Although all native plant and animal species found within the park have some protection due to the preservation of this property, certain species need additional attention. For stewardship purposes, all plants and animals listed by the USFWS, the Florida Fish and Wildlife Conservation Commission (FWC) and the Florida Department of Agriculture and Consumer Services (FDACS) will be given special consideration.

Typically, designated (i.e., listed) species will benefit from proper stewardship of the biological

communities within which they occur. However, some species may require additional measures to ensure their protection. Practices likely to benefit the native flora and fauna within CRP include exotic plant control, feral and exotic animal control, protecting and restoring water resources, prescribed fire applied in appropriate intervals, wildlife monitoring, roller-chopping (where appropriate), pine tree thinning (where appropriate), trash removal and restricting construction of maintenance trails in certain areas. The enforcement of park rules including: no littering, no motorized vehicles, and no collection of ANY natural or cultural resources (e.g., plants, animals, shells, artifacts, etc.) will also benefit the native plants and animals.

Listed Plant Species: The Florida State Statute titled "Preservation of native flora of Florida" (Statute 581.185) provides the following definitions:

- Endangered plants mean species of plants native to the state that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue, and includes all species determined to be endangered or threatened pursuant to the federal Endangered Species Act of 1973, as amended, Pub. L. No. 93-205 (87 Stat. 884).
- Threatened plants means species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in such number as to cause them to be endangered.
- Commercially exploited plants mean species native to the state which [sic] are subject to being removed in significant numbers from native habitats in the state and sold or transported for sale.

There are ten (10) plant species at CRP that are listed by the FDACS (2003): four as endangered, five as threatened and one as commercially exploited (Table 5). A list of all plant species documented within CRP may be found in Appendix D.

Table 5: Listed, Plant Species Documented Within CRP (FDACS 2003)

Scientific Name	Common Name(s)	FDACS*
^*Lantana depressa*	rockland shrub verbena, pineland lantana	E
Ophioglossum palmatum	hand fern	E
Tillandsia fasciculata var. *densispica*	stiff-leaved wild-pine, cardinal airplant	E
Tillandsia utriculata	giant wild pine, giant airplant	E
^*Swietenia mahagoni*	West Indian Mahogany	T
Chrysophyllum oliviforme	Satinleaf	T
Myrcianthes fragrans	twinberry, Simpson's stopper	T
Sacoila lanceolata	leafless beaked ladies tresses, leafless beaked orchid	T
Tillandsia balbisiana	northern needleleaf	T
Encyclia tampensis	Florida butterfly orchid	CE

**Florida Dept. of Agriculture and Consumer Services Designations*
E = Endangered; T = Threatened; CE = Commercially Exploited
^ Planted – not indigenous to site prior to planting

USFWS and FWC maintain records of listed species on the federal and state level respectively. The designations of "endangered" (in danger of extinction within the foreseeable future throughout all or a significant portion of its range) and "threatened" (likely to become endangered within the foreseeable future throughout all or a significant portion of its range) are utilized by both agencies. FWC includes a third designation, "species of special concern", to denote a species which has not yet been listed as a threatened species but should be given special attention due to unusually vital or essential ecological niche filled by these species, past population numbers or general vulnerability.

In November 2016, FWC approved the Imperiled Species Management Plan (ISMP). This plan changed the listing status of 23 species, including the removal of the White Ibis and the Florida black bear and the status change of the Little Blue Herron and the Tricolored Heron. This management plan and the recommendations went into effect in January 2017.

The USFWS recognizes five listed vertebrate species at CRP (two endangered and three threatened). FWC (2011) recognizes thirteen listed species at CRP. Of all the listed species at CRP, the Florida black bear and the White ibis (*Eudocimus albus*) have been proposed to be delisted by the process described above. All the listed species recognized by USFWS are also recognized by FWC (Table 6). A list of all vertebrate species documented within CRP and species profiles for currently listed species may be found in Appendix E.

Table 6: Listed Vertebrate Species Documented Within CRP.

Scientific Name	**Common Name**	**Protection Status (2011)**
Mycteria americana	Wood Stork	FT
Puma concolor coryi	Florida panther	FE
Drymarchon couperi	Eastern indigo snake	FT
Polyborus plancus audubonii (Caracara cheriway)	Audubon's Crested Caracara	FT
Aphelocoma coerulescens	Florida Scrub-Jay	FT
Alligator mississippiensis	American alligator	FT(S/A)
Gopherus polyphemus	gopher tortoise	ST
Falco sparverius paulus	Southeastern American Kestrel	ST
Sternula antillarum	Least Tern	ST
Egretta caerulea	Little Blue Heron	ST
Egretta tricolor	Tricolored Heron	ST

Protection Status (based on FWC list June 2021): FE = Federally-designated Endangered; FT = Federally-designated Threatened; FT(S/A) = Federally-designated Threatened species due to similarity of appearance; ST = State-designated Threatened; ST^ = State-designated Threatened other than those found in Baker and Columbia Counties or in Apalachicola National Forest; SSC = State Species of Special Concern (those special geographic notations for some species designated as SSC do not appear on this list as they are not applicable to this part of the state).

v. Biological Diversity

Biological diversity (also called biodiversity) is "the variety of life and all the processes that keep life functioning" (Keystone Center 1991). Biodiversity includes 1] the variety of different species (plants, animals, microbes, etc.), 2] the genes they contain, and 3] the structural diversity in ecosystems. The wealth of biodiversity supports ecological processes that are essential to maintain ecosystems. Healthy and functioning ecosystems provide optimal habitat for the plants and animals that depend on them and provide ecosystem services such as the protection of water resources, appropriate flood control, the proper maintenance of nutrient cycles and carbon sequestration. Quantifying biodiversity is a difficult task, however, the FNAI provides Biodiversity Reports to stewards of the state's managed conservation areas. The report for CRP is provided in Appendix F and includes all species and natural communities tracked by the FNAI, including all federally listed species.

Lee County's approach to resource management can be described as "natural systems management". This approach is aimed at managing the natural communities of each unit as parts of an interrelated system, rather than managing for the benefit of individual species. The general composition of each community as it may have appeared at the beginning of Florida's historical period is determined by considering factors such as climate, geology, soil, hydrology, and fire frequency. Measures are then implemented to recreate, to the extent possible, the natural processes and conditions that prevailed at that time, with the goal of restoring each community to its "original" condition. The plant communities within CRP range from cypress to mixed rangelands (dry prairies). Portions of these biological communities were harshly impacted in the recent past. These natural systems will require both time and effort for restoration to succeed. However, burning fire-adapted communities, controlling exotic species, preventing or mitigating for anthropogenic erosion, restoring surface water regimes, and other such measures will assist in their eventual recovery to a level closer to original natural conditions than presently occur.

The connection of CRP to the Bob Janes Preserve to the north and, to a lesser extent, the agricultural lands surrounding the park, provide greater habitat potential for those animals with home ranges greater than the acreage of the park to survive. Additionally, CRP has been named to the Great Florida Birding Trail (www.floridabirdingtrail.com) as one park within a network of nearly 500 sites (to date) throughout Florida selected for their excellent bird watching or bird education opportunities.

To date, 245 plant species representing 80 families have been documented at CRP (Appendix D). Of these floristic species, 190 (78%) are native and 55 (22%) are classified as exotic. Twenty-seven of the 55 exotic plant species (49%) are on the Florida Invasive Species Council 2019 List of Invasive Plant Species (FISC 2019). There are one hundred-eighteen (118) vertebrate species documented within CRP to date (Appendix E). Due, in part, to their high mobility and large numbers, birds are relatively easy to see and therefore comprise many of these records. Of the four exotic vertebrates at CRP, the feral hog is responsible for significant damage to natural plant communities.

The integrity and diversity of CRP must be protected when and where possible. Operations staff will perform the following actions in this regard:

- Maintain boundaries with fencing (where possible) and signs to eliminate illegal access to CRP and protect fragile ecosystems.
- Conduct a prescribed fire program to closely mimic the natural fire regimes for different plant communities.

- Control invasive, exotic vegetation followed by annual maintenance to provide more suitable habitat for native, aquatic, and terrestrial species.
- Control invasive, exotic animal populations to reduce their impacts on the herbaceous plants, native animals, and soils.
- Conduct on-going species surveys utilizing volunteers and staff to catalog and monitor the diversityon CRP.
- Use adaptive management if monitoring of restoration techniques indicates a change may be necessary.

C. Cultural and Historical Resources

i. Archaeological and Historical Sites

Archaeological sites are areas that contain physical evidence of past human occupation or activity. Historical sites are any sites or structures over 50 years in age; the historic period in the United States dates to Ponce de Leon's arrival in 1513. Southarc, Inc., based in Gainesville, Florida, conducted an archaeological study of CRP in 1991 and a cultural resource assessment of the park in 1992. The scope of work given to Southarc, Inc. for the archaeological study specified that their analysis was to focus on the known archaeological site and the known historical site (Dickinson and Wayne 1991). Southarc, Inc. was granted a research permit under Chapter 1A-32 of the Rules of the Department of State to conduct archaeological investigations from March 9, 1992 through June 1, 1992. For the cultural resource assessment, Lee County "requested that undisturbed areas of the park (i.e. not covered with dredge spoil) be surveyed, and that a second effort be made to locate the prehistoric mound. In addition, existing structures on the property were to be plotted on maps and identified in terms of chronological period. It was agreed that the survey would focus on proposed impact areas and/or areas of high or medium site potential" (Dickinson and Wayne 1992). The following paragraphs summarize these reports.

The Fichter Creek Burial Mound (archaeological site 8LL747) is located in the north-central portion of the northern half of the property. This mound site was classified as "aboriginal" by Dickinson and Wayne (1991, 1992) and therefore will not be depicted on the cultural resources map per state request. Dickinson and Wayne (1991, 1992) interviewed two local residents and discovered that the Fichter Creek Burial Mound had been "extensively excavated and looted by neighborhood children prior to the 1960s filling. They [local residents] also stated that there was at least 10 to 15 feet of fill in the area of the mound, pumped in via a pipeline and uniformly spread throughout the northern portion of the park." The ceramics excavated were indicative of a specific time-period or specific culture. No artifacts or bone was recovered. The entire mound was not excavated due to the depth of dredge spoil.

The Kellum Homesite (8LL1614) is located on the south side of CRP just west of the main entrance road (Figure 10) and identified by the presence of a rock chimney. Dickinson and Wayne (1991, 1992) classified the homesite as nonaboriginal containing items of both prehistoric land use and early historic settlement of the area.

The mound site and the Kellum Homesite were found to be of local significance. While Southarc, Inc., identified no additional sites of significance LCPR will consult with the Florida Department of State's Division of Historical Resources (DHR) before taking actions that may

adversely affect archaeological or historic resources. In addition to the homesite on the property, a historic cattle vat has been located as well. The vat has been fenced off from visitors for safety.

The following are short-term and long-term objectives associated with the protection of the cultural and historical resources at CRP.

Overall Goal: Protect all cultural and historic resources with the park.

Short-term 2021-2023

- Cooperate with DHR in designing site plans for development of infrastructure.
- Produce interpretive materials to appropriately educate the public on the Fichter Creek Burial Mound and the Kellum Homesite.
- Test found cattle vat for potentially hazardous chemicals.

Long-term 2023-2031

- Cooperate with DHR in designing site plans for development of infrastructure.
- Cooperate with DHR to manage and maintain known existing cultural resources.
- Conduct restoration of cattle vat based on results of the potentially hazardous chemical tests.

<u>Cultural and Historic Resources Budgeting and Costs:</u>

Cultural and historic resource management cost estimates and budgeting is included in day-to-day park activity costs. The Budget for this section is based on personnel costs for park staff. Please refer to table 13 for yearly personnel costs.

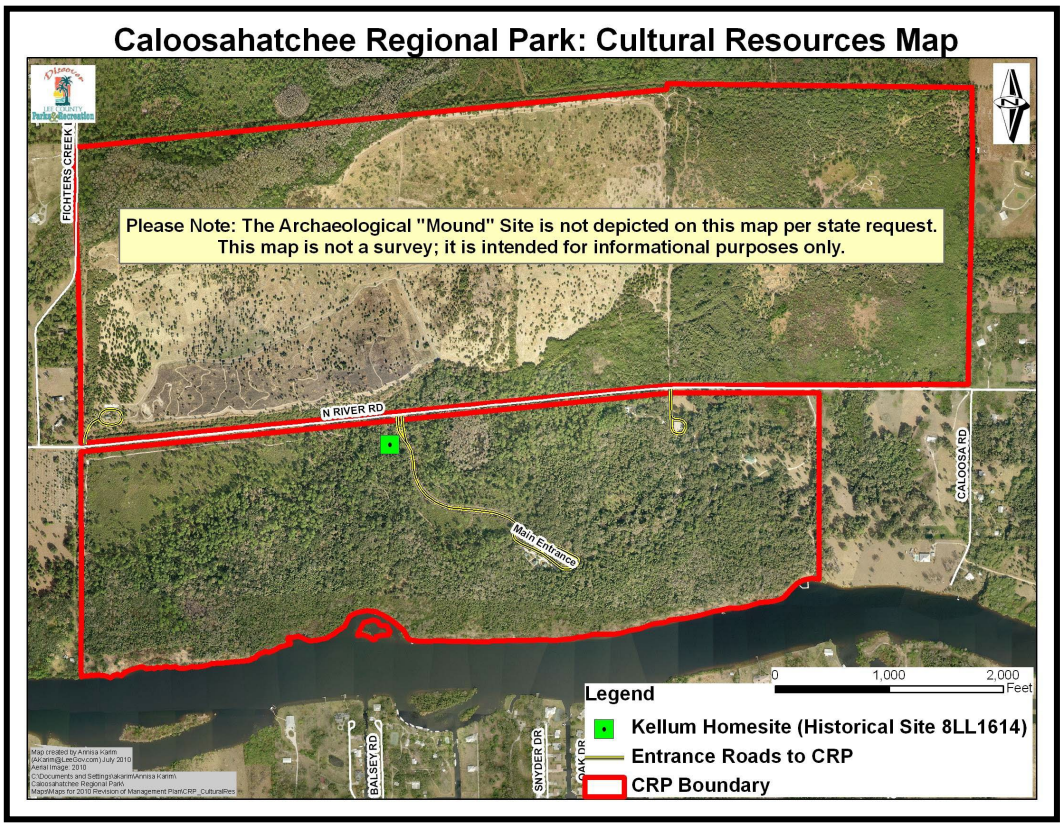


Figure 10: Cultural Resources Map for CRP.

ii. Land Use History

Compared to the east coast of Florida, European settlement in southwest Florida (including Lee County) was relatively abbreviated due to the late settlement of the area. The lack of established trails, heavy vegetative cover and shallow, coastal waters made southwest Florida difficult for settlers to reach.

European settlement of the area in the vicinity of CRP began, primarily, in the mid-19th century. At that time, overland transportation was still very limited. Settlers relied primarily on the Caloosahatchee River as a transportation corridor. However, the river itself posed limitations for transportation due to its shallow, narrow, and tortuous character; and it had a tendency after tropical storms or hurricanes to overflow its banks into its floodplain and adjacent uplands, at times flooding the homes of the settlers.

The Caloosahatchee River has been dredged three times – in the 1880s, from 1930-1937 and 1960-1964. The original dredging was sponsored by the state and funded by Philadelphia millionaire Hamilton Disston. This initial dredging was the main determinate of the river's present course (including its connection to Lake Okeechobee). The result of the dredging has been the creation of a wide, straight, deep canal that has lost most of its original riverine character, diversity, and habitat. The W.P. Franklin Lock, downstream from the park, was installed during the most recent dredging and channelization period to prevent salt-water intrusion up the river and to manage water levels.

The SFWMD refers to the Caloosahatchee River as C43 – Canal 43. The river presently functions and is managed more as a canal than a river. The original purpose of the dredging was to provide drainage and navigation. Since then, the river has become an important source for drinking water and irrigation for farming. All these uses are not always compatible and frequently present conflicts for management and restoration of the river as a natural system.

The effects of the Caloosahatchee River channelization have been decreased flooding of the floodplain and increased use by large pleasure boats and barges on the Okeechobee Waterway. This waterway provides passage across the state from Fort Myers to Stuart and is a part of the Intracoastal Waterway. In addition, many recreational watercraft users can be seen in the area of the river near the park during the summer.

The park site has had several residents over the years. Dr. Kellum, who settled the site circa 1885, lived in a home located near the middle of the site just south of County Road 78 (Figure 10). Gilmer Heitman, who also had a home near the southeast portion of the site with citrus groves and cattle range being the primary uses, owned the land for years. Others, including the John Douglas family, lived in both homes.

An aerial photograph taken in 1944 (Figure 11; note slight alignment problems) shows four groves on the site. The groves were known around the turn of the century as the Windmill Groves because a windmill had been installed near the river in an unsuccessful attempt to harness wind power for irrigation (Charles Foster, personal communication). The Kellum Homesite is not discernible on the aerial. A clearing was located at the southwest corner of the site approximately 100 yards from the river. This may have been an area used during the 1930s dredging. The floodplain area of the river had heavy deciduous tree cover. Pines were scattered south of County Road 78 with large live oaks occurring on the eastern area that was used as pasture. The area north of County Road 78 was largely treeless apart from Fichter's Creek. This north area had been logged for pines in the early part of the twentieth century. This aerial shows the Caloosahatchee River before the most recent dredging event (1960 – 1964).

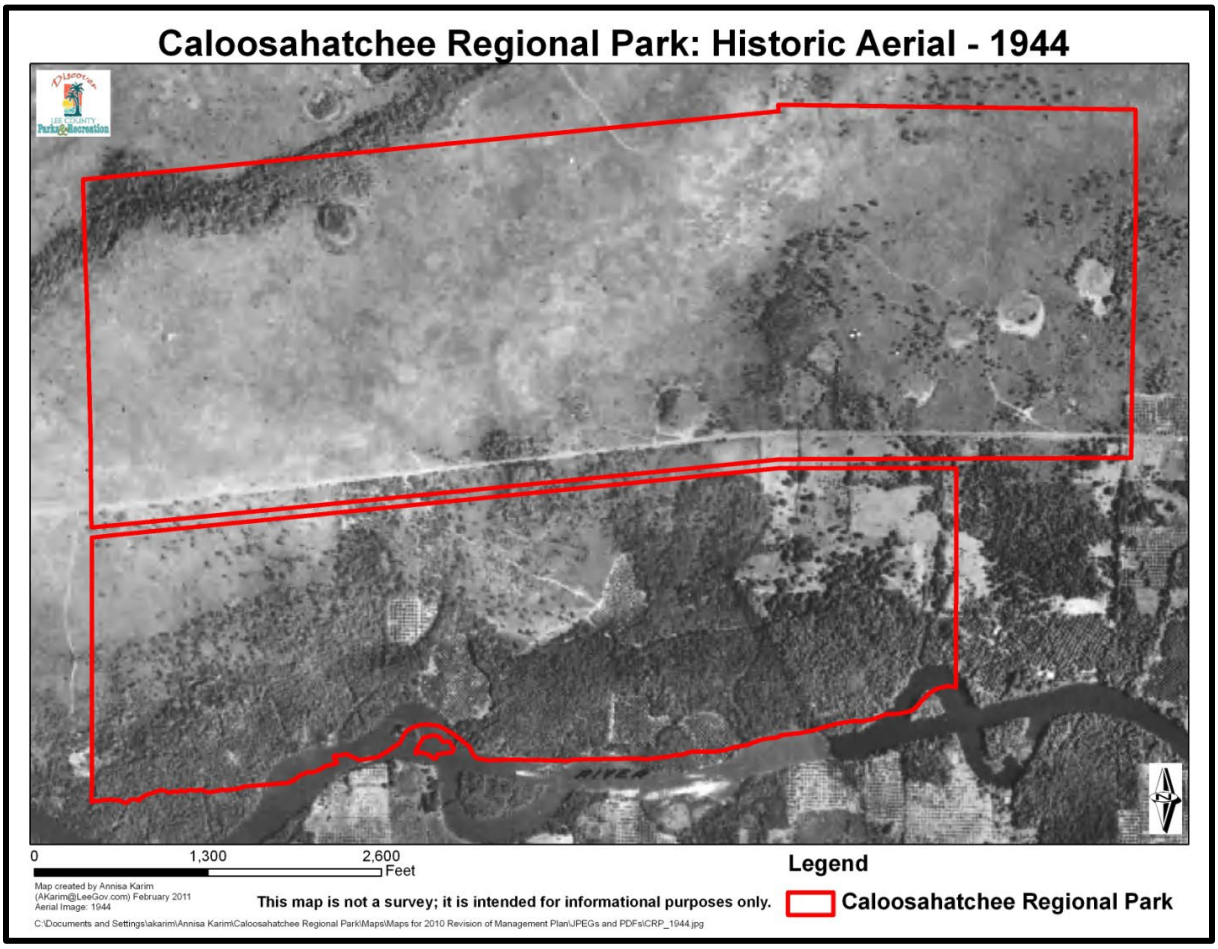
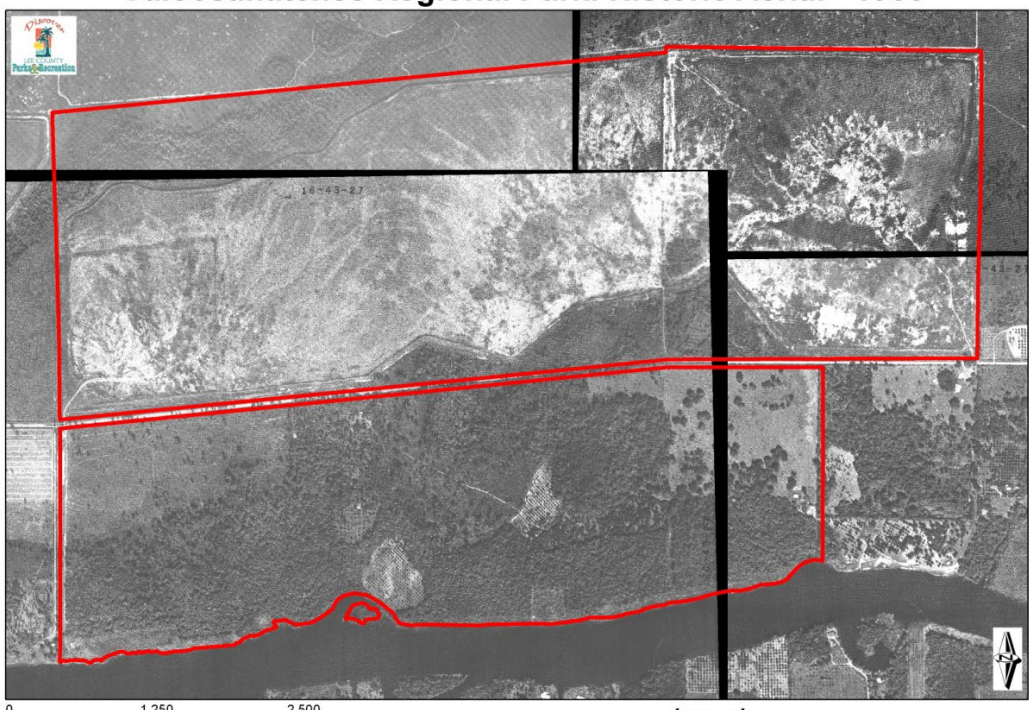


Figure 11: Historic Aerial – 1944

An aerial photograph taken in 1966 (Figure 12 – next page) shows the river after the most recent dredging by the USACOE. The trails and spoil areas on the north side of the park are more defined. These trails are thought to be the ones used by the USACOE to move the spoil materials throughout the site. By 1966, the northeast portion of the south side of the park had been cleared. Vegetation had grown in around the groves and along the shoreline.

The state began the acquisition of these lands in 1969. An aerial photograph taken in 1977 (Figure 13 – next page) shows some newly cleared groves on the south side. The north side seems to be more vegetated and the trail that crosses the north side in an east/ west direction is highly defined.

Caloosahatchee Regional Park: Historic Aerial - 1966



0 1,250 2,500 Feet

Map created by Annisa Karim
(AKarim@LeeGov.com) February 2011
Aerial Image: 1966

This map is not a survey; it is intended for informational purposes only.

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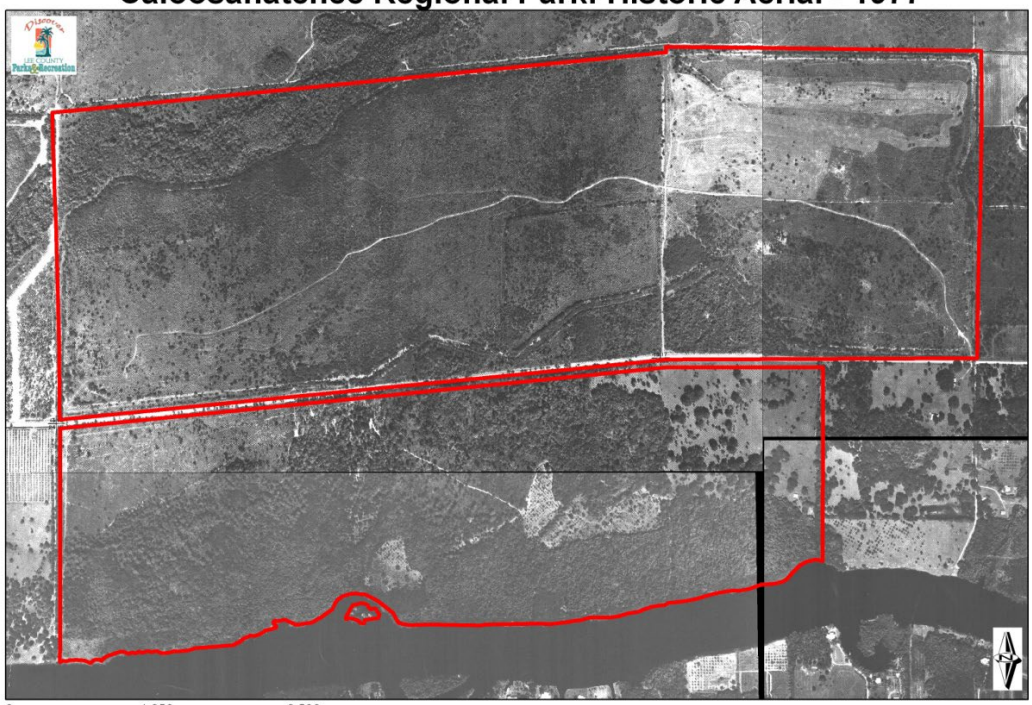
Legend

Caloosahatchee Regional Park

Caloosahatchee Regional Park: Historic Aerial - 1977



0 1,250 2,500 Feet

Map created by Annisa Karim
(AKarim@LeeGov.com) February 2011
Aerial Image: 1977

This map is not a survey; it is intended for informational purposes only.

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Legend

Caloosahatchee Regional Park

Figures 12 and 13: Historic Aerials – 1966 and 1977

An aerial photograph taken in 1988 (Figure 14 - below) shows that a large amount of vegetation on the north side was cleared and the current equestrian trails appear at this time. The northeastern section of the south side was becoming heavily vegetated as were the historic groves.

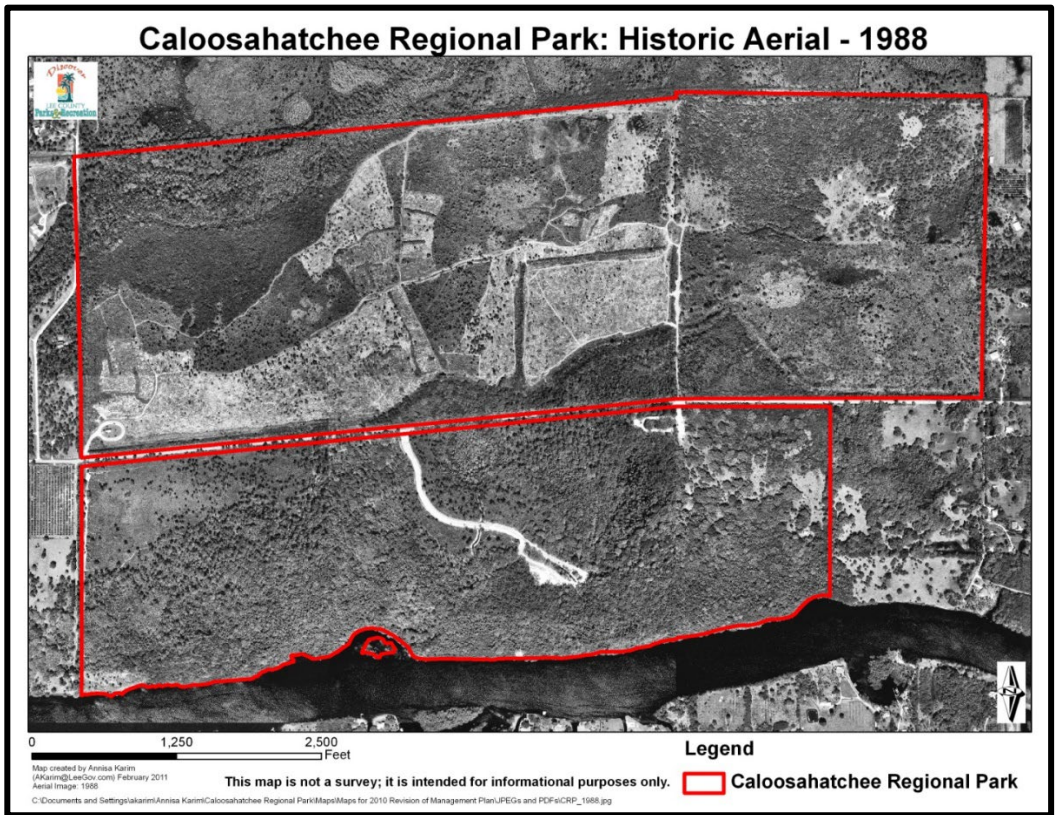

Figure 14: Historic Aerial - 1988

An aerial photograph taken in 2005 (Figure 15 – next page), the first aerial shown in color, shows the degree of cogongrass infestation on the north side (lime green). Additionally, this photograph shows the high degree of infestation of Brazilian pepper on the eastern 160 acres of the north side.

All the other aerial images appearing in this document to represent the "current" state of the park and were taken in 2010.

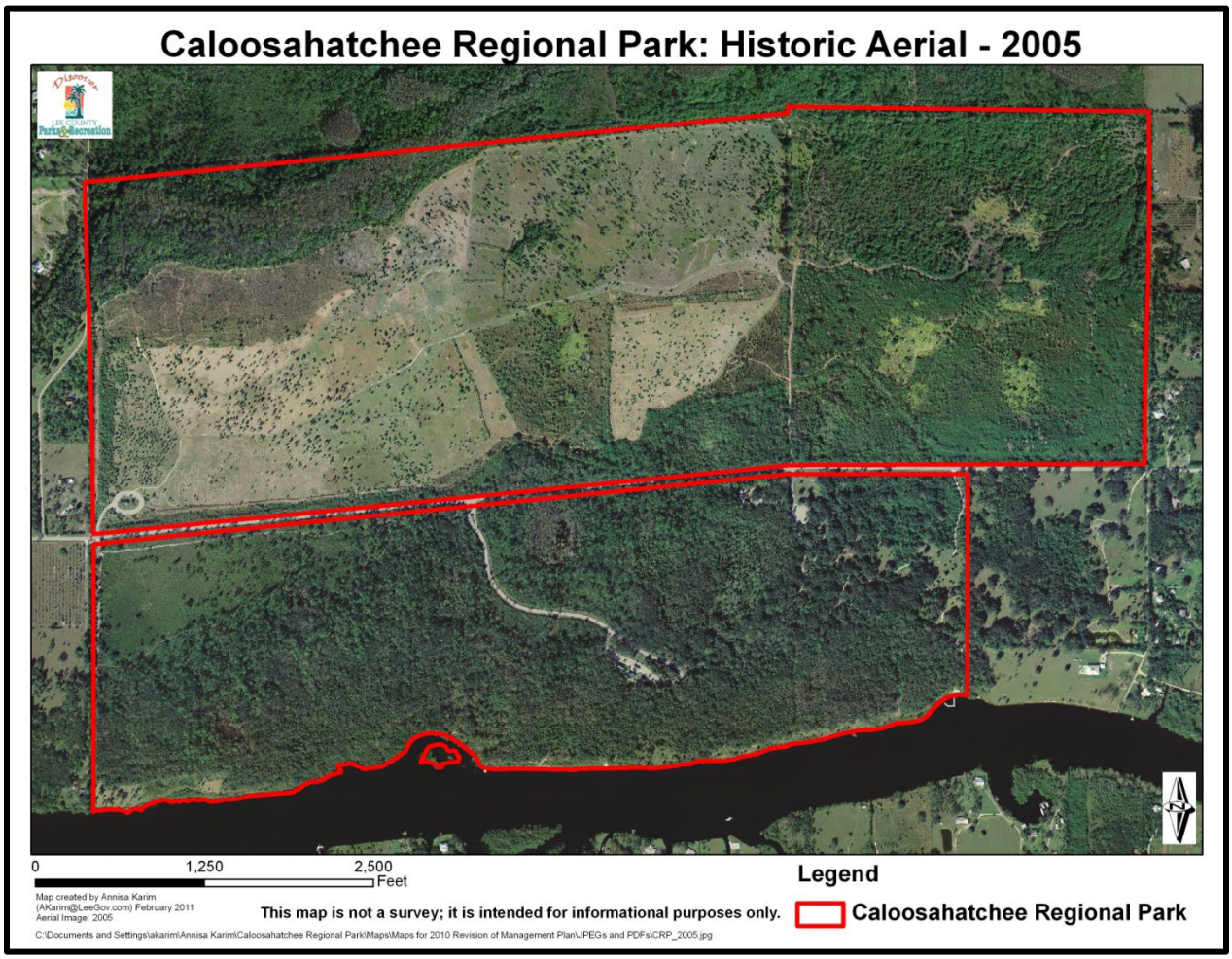

Figure 15: Historic Aerial - 2005

iii. Public Interest

In October 1965, the Lee County Recreational and Development Committee, under the authority of the BoCC, presented a "Proposal to Purchase Land on the Caloosahatchee River in Lee County for Recreational Purposes from the Land Acquisition Trust Fund". This proposal outlined the desire of many residents of Lee County to have access to a public, recreational site in the northeastern portion of the county. Combined with Lee County's rapidly expanding population and resulting recreational demands - escalating land prices, and relatively few sites with recreation potential, led the County to seek the lease of CRP from the State of Florida.

The acquisition of lands currently known as CRP began in 1969. Seven hundred eighteen acres (718) of the site were purchased by TIITF and leased to the Florida Department of Natural Resources (now known as the Florida Department of Environmental Protection), Division of Recreation and Parks. This entity had no immediate plans for the development of facilities and programs and consequently Lee County obtained a 50-year lease to the property for development of public, outdoor recreational facilities as a unit of the County's Regional Park System on June 14, 1989. The lease allows Lee County to manage the leased premises only for the conservation and protection of natural and historical resources and for resource-based public outdoor

recreation that is compatible with the conservation and protection of these public lands. The park opened to the public in March 1999.

Lee County obtained a lease from SFWMD for fifty (50) acres on April 20, 2004 and is currently operating under lease 3410E-009 effective Feburary 3, 2021. The Lease Term is for one (1) year with an expiration date of February 3, 2022, however the lease will automatically renew for another year unless either party elects to terminate the lease.

V. FACTORS INFLUENCING MANAGEMENT

A. Natural Trends and Disturbances

Natural trends and disturbances influencing native communities (and consequently some stewardship activities) at CRP include hurricanes, flooding, wildfires, occasional freezes and the cycling of wet and dry seasons. Implementation of the Management Action Plan will take all of these factors and their influence on projects at CRP into consideration. For example, a tropical storm or hurricane could damage large amounts of vegetation. If the debris increases the chance of negative impacts to wildlife habitat or public safety, it may be necessary to remove or mulch downed vegetation following a hurricane. Wildfires caused by lightning strikes are natural occurrences in Florida.

Seasonal flooding also influences stewardship activities (invasive exotic plant control, prescribed burning, etc.) at CRP. The Lee County Land Stewardship Operations Manual's exotic plant prescription form will be used to define the conditions for control activities. Care shall be taken to prevent herbicide from running off during a typical summer thunderstorm so as not to affect non-target plants. Only herbicides approved for aquatic application will be used for treatment of vegetation in standing water or where flooding may occur. The use of heavy equipment will be limited to the dry season for CRP's south side. Since the north side of the park is so heavily impacted by invasive, exotic grasses, heavy equipment is required to keep these grasses mowed at all times of the year. The timing of prescribed burns will also be influenced by seasonal rain, weather, wind patterns and the goals of the burn.

B. Internal Influences

Several factors within CRP continue to influence the way in which management activities can be conducted. Many of these influences can be attributed to the historic dredging of the Caloosahatchee River. Caloosa Fine Sand (dredge spoil) underlies approximately 52% of CRP. All of this dredge spoil is contained on the north side (portion of CRP north of C.R. 78) of the park. As a result, the topography of the park has been highly altered (Figure 5) and a burial mound site (see section on Archaeological and Historical Sites) has been covered by the spoil. The deposition of the dredge has also altered the hydrology of the park by changing the way in which water flows southward. These alterations influence water flow on the site by both interrupting sheet flow and holding water for extended periods in some areas while excessively draining other areas. Finally, Brazilian pepper, cogongrass and Guineagrass have also heavily impacted the north side.

The presence of feral hogs is also compromising some of the natural plant communities within CRP. Their rooting behavior disturbs the soil and provides optimal ground for invasive plant species to take hold. Additionally, feral hogs consume the eggs of ground-nesting birds. Hog trapping via a county-approved contractor has been implemented to address this problem.

C. External Influences

The park is adjacent to the 5895-acre Bob Janes Preserve, which, in turn, is adjacent to the 67,619-acre Babcock Ranch Preserve in Charlotte County. Together with nearby conservation lands, including the Babcock-Webb Wildlife Management Area and Telegraph Creek Preserve, these conservation areas provide habitat for numerous listed species. County Road 78 divides the park into the "north side" and "south side". Privately owned lands along the eastern and western boundaries are designated as rural lands by the Lee County Future Land Use Map and are currently zoned for agricultural uses (AG-2; Lee Plan 2021). Allowed uses for this zoning categorization are itemized in detail in the Lee County Land Development Code Current. Uses of these adjoining properties do not negatively affect the protection of natural resources within CRP, nor do they conflict with planned uses of the park.

Several factors outside of the boundaries of CRP continue to influence the way in which management activities can be conducted. CRP lies within the Alva Planning Community whose mission is to "Preserve and protect its unique historical, rural, agricultural and small town flavor". Alva is the oldest settlement in Lee County and its residents seek to maintain the rural character. This rural character does provide for some habitat value for animals that move large distances, however, these lands also contain additional seed sources for the invasive, exotic plants found within CRP and have the potential to house other invasive plants not yet detected on CRP. LCPR staff will offer these landowners information regarding the Florida Invasive Species Partnership (http://www.floridainvasives.org/). This partnership is an online resource of management assistance programs to help landowners fight against problematic plant species. This resource takes the guesswork out of finding the agencies or organizations offering assistance and will direct landowners to available programs. LCPR staff is involved in the local (southwest Florida) Cooperative Invasive Management Area (CISMA) and may be able to assist in the CISMA's goal "to reduce the impact of or eliminate invasive, non-native plants and non-native animals by combining programs and resources to address invasive species on a landscape level to achieve common goals and objectives."

As discussed in the previous section, the dredging of the Caloosahatchee River has influenced the way in which CRP can be managed. The dredging resulted in high rates of erosion on the banks of the river. Erosion has claimed a significant portion of the bank since the 1960s dredging. The Brazilian pepper that formerly covered the shoreline provided some level of stabilization of the riverbank. Their intertwined root system extended into the river in floating mats, and their floating branches allowed energy from boat wake waves to be partially expended before they broke on the bank. Removal of the pepper was done with relatively minimal soil disturbance. Below-ground portions of the pepper were not removed. The hair root system was probably largely responsible for holding the soil together. These fine roots decay quickly after death of the plant. Cypress has been planted on some portions of the bank but the high-speed boat traffic continues to cause shoreline erosion.

i. Optimal Boundary and Surplus Acreage

While the Lee County Future Land Use Map designates the privately owned lands along the eastern and western boundaries as rural lands and they do not negatively influence the protection of natural resources within CRP and therefore are not are essential to management of the property. However, the protection of the entire length of Fichter's Creek and all the associated wetlands should be considered when discussing the optimal boundary for the park. Approximately (southern property acrage) west of the southern portion of the park may be

considered for acquisition for further protection (figure 16) if acquisition and management finds are available. If acquired these lands would be managed according to the stewardship standards set forth by this document. In 2018, 86 acres on the North side of N River Rd. was purchased from SFWMD and has been named the Alva Equestrian Property. The future use of this property is to be incorporated into the current mountain biking route, thus being connected to the north side of CRP via Bob Janes Preserve. Currently, the properties between CRP and Alva Equestrian Property are active residential. If this were to change in the future, LCPR would look in to purchase if funds are available. The shape and size of these "optimal" lands are based on current property delineations. The determination of an optimal boundary was made according to resource protection standards only. The 47-acre area on the south side of C.R. 78 and to the east of the existing boundary was pursued for acquisition (owners were contacted) in 1999 and the owners indicated they had no plans to sell the property and intend to keep it in the family. If this situation changes and the property become available, this area should be considered for acquisition.

It is the finding of LCPR that no portion of CRP should be considered or declared surplus.

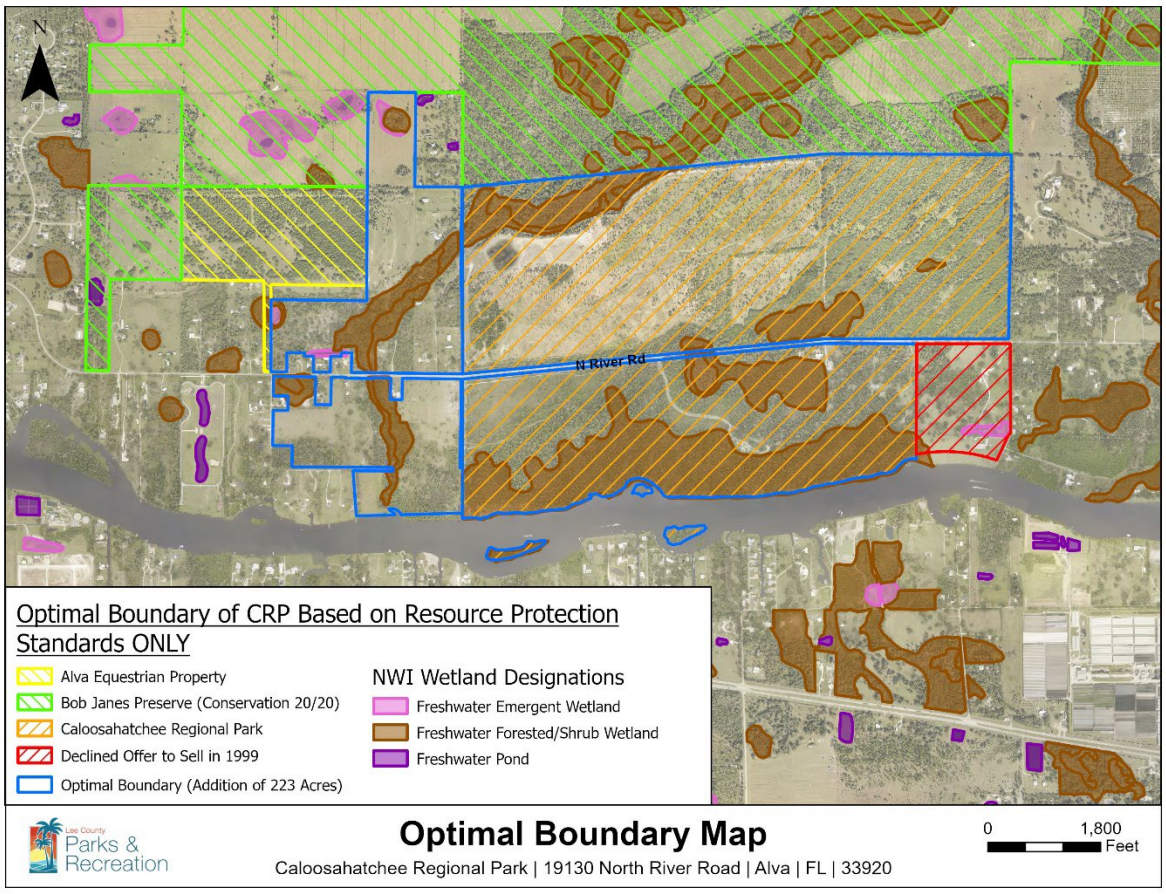

Figure 16: Optimal Boundary Map.

D. Legal Obligations and Constraints

Seven hundred eighteen acres (718) of CRP are owned by the TIITF and leased by the BoCC. This 50-year lease expires on May 10, 2039 (Appendix A). This lease allows Lee County to manage the leased premises only for the conservation and protection of natural and historical

resources and for resource-based public outdoor recreation that is compatible with the conservation and protection of these public lands. Lee County obtained a lease from SFWMD (Appendix B) on April 20, 2004 for fifty (50) acres of CRP and is currently operating under Amendment 2 (second extension of lease) of this lease - effective April 20, 2009 through April 19, 2014. The SFWMD lease has been renewed as of February 2021 and will be renewed yearly.

i. Permitting

Land stewardship activities at CRP may involve obtaining permits from regulatory agencies. Any proposed hydrologic improvements to the site may require obtaining permits from the Florida DEP, USACOE and SFWMD. Hydrological and/or habitat restoration projects requiring heavy equipment or tree removal will require notification to the Lee County Department of Community Development (LCDCD). Burn authorization from the FFS is required for all prescribed burns conducted on CRP.

Fitcher's Creek Restoration Project: The LDNR has completed the Fitcher's Creek Restoration Project as of 2017. This project included the creation of an approximately 3.2-acre lake and 3 dry detention areas totaling approximately 7.1 acres to restore the appropriate hydroperiods and water quality within Fitcher's Creek. The completion of this project includes continued monitoring and management by LCDNR.

Shoreline Stabilization Project: A canoe/kayak launch and dock are located along the river shoreline at the southeast corner of the park. Exotic vegetation has predominantly been removed from this portion of shoreline. Although native vegetation is present along the shoreline, wave action from boat wakes has resulted in erosion of the site shoreline. The erosion has resulted in a drop-off from the uplands to the river with underscouring of the bank.

LCPR has completed the stabilization of the canoe/kayak launch at CRP with ±46 linear feet of Geoweb. The four-inch thick GW20V perforated Geoweb cellular confinement system was installed to provide the erosion protection. LCPR has also completed the installation of ±245 linear feet of riprap to stabilize the shoreline adjacent to the canoe/kayak launch area in the Caloosahatchee River, Permit No. 36-03165-P / Application No. 100331-17 issued in April 2011. In April 2014, a permit modification was authorized for the installation of 6,900 cubic yards of riprap revetment along 3,280 linear feet of eastern shoreline. The modification project was split into two phases. Phase I was completed in July 2015, Phase II was completed February 2017. The riprap will serve to stabilize the remainder of the shoreline. The riprap prevents erosion that contributes to degradation of water quality. It also protects the existing shoreline by preventing further erosion of the shoreline into the Caloosahatchee River. Phase III of the project consisted of completing the final ±3235 linear feet of riprap. This phase was completed in May 2022. The Oxbow Island south of the park has been included in the park boundaries (Management Unit C) and was included in Phase III of the stabilization project. An Environmental Resource Permit has been submitted to the SFWMD and USACOE and approved for this project (Appendix B).

ii. Other Legal Constraints

Information on easements associated with CRP was gathered from surveys, where available or from various county GIS data layers and verified when possible, via official records of the Lee County Clerk of Courts (http://www.leeclerk.org).

Of the fifteen easements related to CRP, one is an access drainage easement held by Lee County, three are electric easements held by Florida Power and Light, three are perpetual spoil easements held by the USACOE, seven are perpetual pipeline easements held by the USACOE and one is a perpetual ingress/ egress easement held by TIITF. Figure 17 shows the location of these easements on CRP and Table 7 provides information on these easements. Code letters A – O were used delineate the easements on the map and within the table.

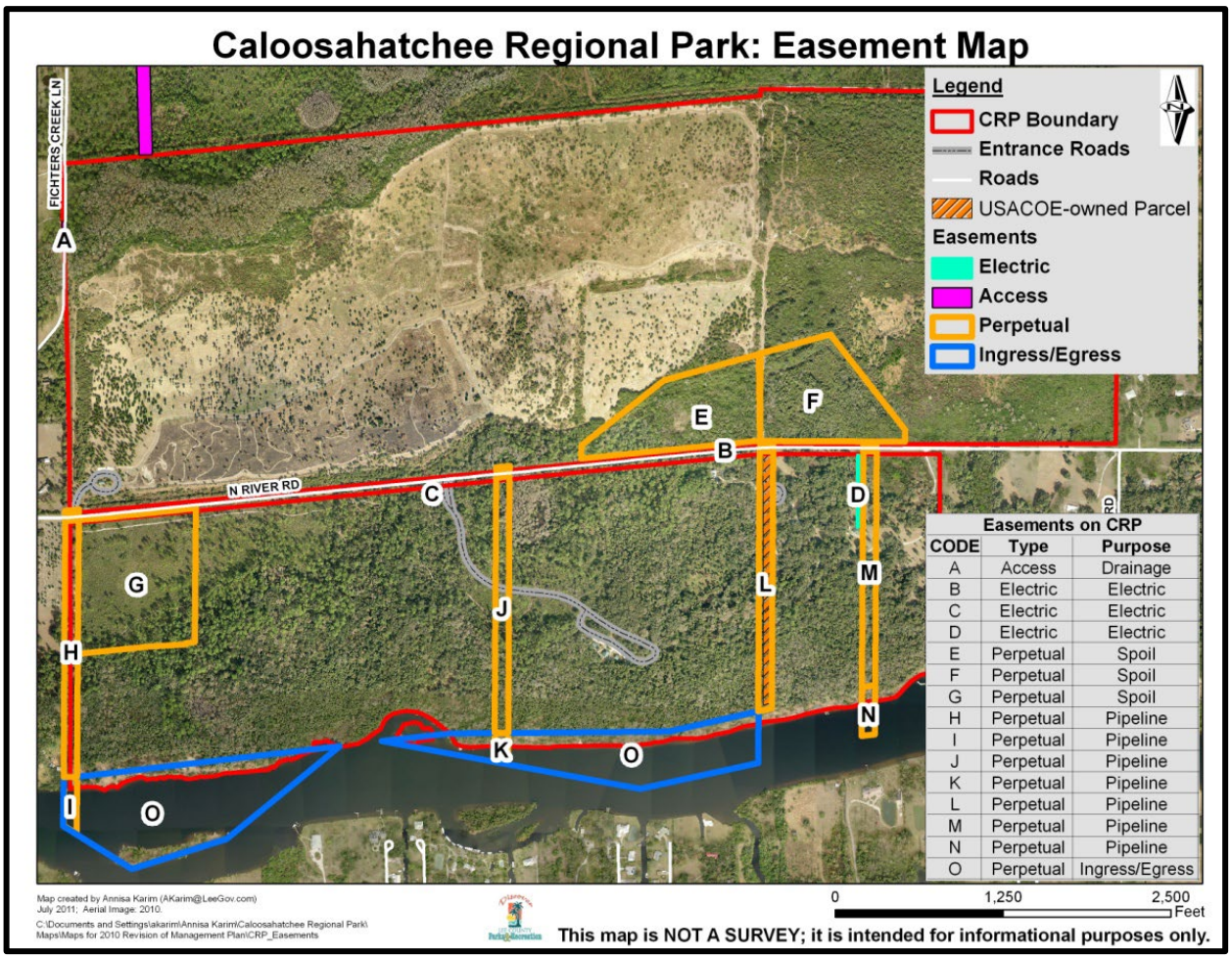

Figure 17: Easements associated with CRP (see Table 7 for complete information).

Table 7: Easements associated with CRP (see Figure 17 for visual representation)

CODE	TYPE	PURPOSE	INSTRUMENT NO.	ORBKPG	GRANTOR[A]	GRANTEE[B]	COMMENTS
A	Access	Drainage	2009000294330		First Community Bank of Southwest Florida	Lee County	
B	Electric	Electric			Lee County (Caloosahatchee Regional Park)	FPL	Blue Sheet 930896 7/28/1993 BoCC meeting date
C	Electric	Electric			Lee County (Caloosahatchee Regional Park)	FPL	Blue Sheet 930896 7/28/1993 BoCC meeting date
D	Electric	Electric	2005000050675		Lee County	FPL	FPL Easement on CRP Specific Purpose
E	Perpetual	Spoil	528365	O BK 569 / PG 281	Central and Southern FL Flood Control District	USA	Perpetual Use easement, granted to USA to deposit spoil and maintain drainage
F	Perpetual	Spoil	338466	O BK 235 / PG 226	Fairway Orange Groves Inc	USA	Remainder of easement released by OR 570/PG 629
G	Perpetual	Spoil	528366	O BK 569 / PG 285	Robert Hughes et al	USA	Right to deposit spoil and maintain drainage
H	Perpetual	Pipeline	338465	O BK 235 / PG 223	Fairway Orange Groves Inc	USA	C - Transmission of dredged materials
I	Perpetual	Pipeline	339314	O BK 236 / PG 393	Central and Southern FL Flood Control District	USA	Parcel 1
J	Perpetual	Pipeline	338465	O BK 235 / PG 223	Fairway Orange Groves Inc	USA	A - Transmission of dredged materials
K	Perpetual	Pipeline	339314	O BK 236 / PG 393	Central and Southern FL Flood Control District	USA	Parcel 2
L[C]	Perpetual	Pipeline	528367	O BK 569 / PG 292	Hughes, Lewis, Clay et al.	USA	Parcel 127-A, Tract No 2502E-6
M	Perpetual	Pipeline	338465	O BK 235 / PG 223	Fairway Orange Groves Inc	USA	B - Transmission of dredged materials
N	Perpetual	Pipeline	339314	O BK 236 / PG 393	Central and Southern FL Flood Control District	USA	Parcel 3
O	Perpetual	Ingress/Egress	529201	O BK 570 / PG 632	Central and Southern FL Flood Control District	TIITF	Also for recreational programs

[A] The Central and Southern FL Flood Control District is the predecessor of the SFWMD; [B] FPL = Florida Power and Light; USA = United States Army Corps of Engineers; [C]Land owned by USA

iii. Relationship to Other Plans: Local, State and National

The LCPR Operations Manual (adopted by the BoCC in March 2002; revised 2012) governs operational functions of CRP. This document provides guidance regarding many subjects affecting the responsibilities of LCPR staff including personnel management, safety issues, facility maintenance, fiscal operations, purchasing and recreation programs. When public facilities are developed on areas managed by LCPR, every effort is made to comply with Public Law 101 - 336, the Americans with Disabilities Act. As new facilities are developed, the universal access requirements of this law are followed in all cases except where the law allows reasonable exceptions (e.g., where accessibility is structurally impractical or where providing such access would change the fundamental character of the facility being provided).

The Land Stewardship chapter within the Operations Manual states that, "Caloosahatchee Regional Park (owned by the State of Florida but leased to the County) is also included in this total [acres of land under preservation] and will be managed in the same manner as all other preserves". Additionally, LCPR has adopted an internal "Land Stewardship Operations Manual" that "provides guidance for land managers/stewards in managing Lee County's preserves and natural park areas".

This plan is also in conformance with the Local Government Comprehensive Plan for Lee County, Florida, as approved and adopted. The State has implemented a non-regulatory statute encouraging concurrency with level of service standards set by the county. The required level of service for Regional Parks is six (6) acres per 1,000 total, seasonal population per Lee Plan Policy 95.1.3 This Regulatory Standard is identified in state law as being essential to support development. The desired level of service for Regional Parks as stated in the Lee Plan is eight (8) acres per 1,000 total, seasonal population. A letter confirming compliance with the Lee County Comprehensive Plan is presented on page vii of this document.

The Lee Plan, Lee County's comprehensive plan, is designed to depict Lee County as it will appear in the year 2045. The population is projected to reach over 1,000,000 perminant residents, with an 18% increase in seasonal residents. The previous themes and trends have been updated as follows:

- The County's growth patterns will continue to be dictated by a Future Land Use Map that will not change dramatically.
- The County's public facilities will be maintained at adequate levels of service, partly by the construction of new facilities and partly using new methods to conserve the capacity of existing facilities.
- The County's natural resources will be protected through public land acquisition programs and by maintaining and enforcing cost-effective land use and environmental regulations that supplement, where necessary, federal, state, and regional regulatory programs.
- The County's traditional economic base will continue to be diversified to increase the percentage of high-paying jobs, reduce tax burdens on residents, and enhance the stability of the County.

The four chapters that affect the management of CRP are **Chapter II – Future Land Use, Chapter IV – Community Facilities and Services**, **Chapter V – Parks, Recreation and Open Space** and **Chapter VII – Conservation and Coastal Management**.

Chapter II, POLICY 1.4.6: Conservation Lands include uplands and wetlands that are owned and used for long range conservation purposes. Upland and wetland conservation lands will be shown as separate categories on the Future Land Use Map. Upland conservation lands will be subject to the provisions of this policy. Wetland conservation lands will be subject to the provisions of both the Wetlands category described in Objective 1.5 and the Conservation Lands category described in this policy. The most stringent provisions of either category will apply to wetland conservation lands. Conservation Lands will include all public lands required to be used for conservation purposes by some type of legal mechanism such as statutory requirements, funding and/or grant conditions, and mitigation preserve areas required for land development approvals. Conservation Lands may include such uses as wildlife preserves; wetland and upland mitigation areas and banks; natural resource based parks; ancillary uses for environmental research and education, historic and cultural preservation, and natural resource based parks (such as signage, parking facilities, caretaker quarters, interpretive kiosks, research centers, and quarters and other associated support services); and water conservation lands such as aquifer recharge areas, flow-ways, flood prone areas, and well fields. Conservation 20/20 lands designated as conservation are also subject to more stringent use provisions of the 20/20 Program or 20/20 ordinances. (Ord. No. 98-09, 02-02)

Chapter IV, POLICY 59.1.6: The County will, through appropriate regulations, continue to provide standards for construction of artificial drainage-ways compatible with natural flow-ways and otherwise provide for the reduction of the risk of flood damage to new development. (Ord. No. 94-30, 00- 22)

Chapter IV, POLICY 60.1.3: Examine steps necessary to restore principal flow-way systems to assure the continued environmental function, value, and use of natural surface water flow-ways and associated wetland systems. (Ord. No. 00-22, 07-12, 18-28)

Chapter V provides that Land Stewardship staff will ensure that any public use facilities and recreational opportunities will comply with **GOAL 84: REGIONAL PARKS**, which provides policy outlining the preservation of natural environment areas that are available to the general public. **Goal 85: PARK PLANNING AND DESIGN**, which requires that parks and recreation sites are planned, designed, and constructed to comply with the best professional standards of design, landscaping, planning, and environmental concern. Staff will also work to meet **Goal 86: ENVIRONMENTAL AND HISTORICAL PROGRAMS, Objective 86.1** to provide information and education programs regarding its cultural history and its environment at appropriate facilities. (Amended by Ordinance No. 94-30, 00- 22)

Chapter VII, Goal 123: RESOURCE PROTECTION provides to manage the county's wetland and upland ecosystems so as to maintain and enhance native habitats, floral and faunal species diversity, water quality, and natural surface water characteristics. **Objective 123.1: RESOURCE MANAGEMENT PLAN** provides the county will continue toimplement resource management policies and regulations that ensure the long-term protection and enhancement of the natural upland and wetland habitats by retaining the interconnectedness and functionality of the hydroecological systems in order to progress towards a more ecologically productive and sustainable environment. (Ord. No. 94-30, 00-22, 18-28).

Chapter VII, Objective 123.3: WILDLIFE provides the county will maintain and enhance the fish and wildlife diversity and distribution within Lee County for the benefit of a balanced ecological system. (Amended by Ordinance No. 94-30, 18-28) **Policy 123.3.1:** encourages upland preservation in and around preserved wetlands to provide habitat diversity, enhance edge effect, and promote wildlife conservation. Initiating a prescribed fire regime and removing invasive exotics will follow this policy.

Chapter VII, Objective 123.4: ENDANGERED AND THREATENED SPECIES IN GENERAL provides Lee County will continue to protect habitats of endangered and threatened species and species of special concern in order to maintain or enhance existing population numbers and distributions of listed species. **Policy 123.4.1** states to identify, inventory, and protect flora and fauna indicated as endangered, threatened, or species of special concern in the "Official Lists of Endangered and Potentially Endangered Fauna and Flora of Florida," Florida Fish and Wildlife Conservation Commission (FWC), as periodically updated. Lee County's Protected Species regulations will be enforced to protect habitat of those listed species found in Lee County that are vulnerable to development.

Chapter VII, Objective 123.8: GOPHER TORTOISES provides that the county will protect gopher tortoises through the enforcement of the protected species regulations and by operating and maintaining, in coordination with the FWC, the Hickey's Creek Mitigation Park. (Amended by Ordinance No. 94-30) **Policy 123.8.1** provides that the county policy is to protect gopher tortoise burrows wherever they are found. However, if unavoidable conflicts make on-site protection infeasible, then off-site relocation may be provided in accordance with FWC requirements (Amended by Ordinance No. 94-30).

Chapter VII, Objective 123.10: WOODSTORK, Policy 123.10.2: provides that Land Stewardship staff will continue to document wood stork utilization of the park and ensure that the CRP stewardship plan follows USFWS "Habitat Management Guidelines for the Wood Stork in the Southeast Region."

Chapter VII, Goal 101: COASTAL AREAS, Objective 101.1: COASTAL AREA PLANNING provides that Lee County will improve the function of natural systems as a defense against coastal flooding. (Ord. No. 94-30, 00-22, 18-28) **Policy 101.1.2** provides that Lee County will protect and conserve the following environmentally sensitive coastal areas: wetlands, estuaries, mangrove stands, undeveloped barrier islands, beach and dune systems, aquatic preserves and wildlife refuges, undeveloped tidal creeks and inlets, critical wildlife habitats, benthic communities, and marine grass beds (Amended by Ordinance No. 00-22, 18-28.

Chapter VII, Goal 124: WETLANDS provides that the county maintains and enforces a regulatory program for development in wetlands that is cost-effective, complements federal and state permitting processes, and protects the fragile ecological characteristics of wetland systems. (Amended by Ordinance No. 94-30, 18-28) **Objective 124.1** provides that the natural functions of wetlands and wetland systems will be protected and conserved through the enforcement of the county's wetland protection regulations and the goals, objectives, and policies in this plan. "Wetlands" include all of those lands, whether shown on the Future Land Use Map or not, that are identified as wetlands in accordance with F.S. 373.019(17) through the use of the unified state delineation methodology described in FAC Chapter 17-340, as ratified and amended by F.S. 373.4211. (Amended by Ordinance No. 94-30, 00-22).

Finally, current and planned uses of CRP are (1) in compliance with the Conceptual State Lands Management Plan and its requirement for "balanced public utilization," and, (2) in compliance with Florida's Statewide Comprehensive Outdoor Recreation Plan.

E. Management Constraints

The primary constraints to the stewardship and restoration of CRP are funding and staffing. The north side of the park is heavily impacted by invasive flora (e.g., Brazilian pepper, cogongrass, Guineagrass, rosary pea) due, largely, to the disturbance of the site from the deposition of dredge spoil. LCPR staff continues to seek funding and partnerships to aid in the control of these species. Every year, the FWC's Invasive Plant Management Section asks each of its Regional Upland Working Groups to rank funding requests within their area for the treatment of FLEPPC designated invasive plants. In May 2010, LCPR staff requested funding from the Southwest Florida Invasive Species Working Group for the treatment of approximately 60-acres of cogongrass on the north side of the park. LCPR attained a first-place ranking among all projects presented. Additionally, LCPR staff conducted an experiment on the efficacy of selected herbicides on the control of Guineagrass. Education of the public on (1) the impact if invasive species on natural areas; (2) the needs and realities (e.g., restoration is a long-term endeavor, aesthetics of the park may decline in the short term) of restoration; and (3) their vigilance in halting the spread of exotics is crucial to attaining long-term stewardship goals (Appendix H).

F. Public Access and Passive, Recreational Opportunities

CRP was opened to the public in March 1999. The south side (portion of CRP south of C. R. 78) includes picnic shelters, restrooms, parking, offices, hiking trails totaling 5.25 miles, a campground, a lodge, an overlook, fishing pier and a canoe/ kayak launch. The campground features 28 primitive tent camping sites. Groups and equestrian camping options are available, as well a special use area for large events. The north side (portion of CRP north of County Road 78) currently offers 11.5 miles of mountain bike trails and 6.5 miles of equestrian trails as well as a picnic shelter, parking and restroom facilities (Figure 3).

Section 253.034(1) of Florida State Statutes asserts that, "All lands acquired pursuant to chapter 259 [i.e., CRP] shall be managed to serve the public interest by protecting and conserving land, air, water, and the state's natural resources, which contribute to the public health, welfare, and economy of the state. These lands shall be managed to provide for areas of natural resource-based recreation, and to ensure the survival of plant and animal species and the conservation of finite and renewable natural resources. The state's lands and natural resources shall be managed using a stewardship ethic that assures these resources will be available for the benefit and enjoyment of all people of the state, both present and future."

The mission of LCPR is to (1) provide safe, clean and functional Parks & Recreation facilities, (2) provide programs and services that add to the quality of life for all Lee County residents and visitors and, (3) enhance tourism through special events and attractions. Keeping these provisions in mind, CRP has been developed in a manner to ensure the conservation and protection of the natural and historical resources while providing resource-based, public, outdoor recreational opportunities that have been approved for state lands and that are compatible with the conservation and protection of these public lands. The site's diverse vegetation and extensive frontage on the river, coupled with interpretive programs and amenities, provide

various opportunities for the public to enjoy and continue to be educated about the importance of the site. From fiscal years (Oct. – Sept) 2010 to 2021, CRP recorded over 1,758,000 (Table 8) units of service provided to the residents and visitors to Lee County. As the County's population increases, LCPR staff expects to see a continued increase in visitation to CRP.

Table 8: Units of Service Numbers for CRP (FY 2010 – FY 2021).

Fiscal Year	Picnic Shelter	Paths/ Trails	Special Events	Staff Led Programs	Equipment Rental	User Groups (e.g. Campground)	Misc.	**Totals**
2010	114,345	225,596	4,154	1,277	59	2,532	6,049	**354,012**
2011	55,698	110,522	1,998	411	154	5,786	1,855	**176,424**
2012	58,195	111,209	1,829	348	95	5,639	1,700	**179,015**
2013	5,279	86,813	2,434	658	147	6,888	725	**102,944**
2014	16,064	48,098	2,387	944	142	10,516	1,114	**79,265**
2015	7,483	87,763	1,145	410	221	-	12,526	**109,548**
2016	16,766	89,465	2,559	238	250	1,209	18,717	**129,204**
Totals	**273,830**	**759,466**	**16,506**	**4286**	**1,068**	**32,570**	**42,686**	**1,130,412**

(Note: Switched over to Vehicle Counters in 2017)

Fiscal Year	Weekdays	Weekends/ Holidays	Special Events	Other	**Totals**
2017	56,900	94,143		2,340	**153,383**
2018	33,182	62,529		2,091	**97,802**
2019	44,569	108,898	372	1,206	**155,045**
2020	32,629	76,823	396	364	**110,212**
2021	32,628	78,516	275	384	**111,803**
Totals	**199,908**	**420,909**	**1,043**	**6,385**	**628,245**

Total Park Visitors (2010-2021): 1,758,657

LCPR offers and promotes appropriate, resource-based recreational activities approved for state lands while maintaining the over-arching goal of natural and cultural resource protection. Safeguarding and enhancing the environmental integrity and biological diversity of CRP is the primary goal and the guiding principle for the operation and management of the site. LCPR staff relies heavily on volunteers to help in the maintenance of public access trails. The number and length of public access trails available at CRP, especially the mountain bike and equestrian trails on the north side of the park, are a direct result of the volunteer hours dedicated to their maintenance and upkeep. If the volunteer hours dedicated to these trails diminish, LCPR staff will determine which trails will remain open and whether additional proposed trail expansions should take place. LCPR staff will coordinate closely with user groups to ensure that trails meet safety and quality standards while ensuring the environmental integrity of the site is maintained/ improved.

Public Access and Passive, Recreational Opportunities Costs*:

Public Use	Annual Cost=SUM(*MowingEst.*)+(*TrailMaint.*)+(*BoundarySignReplacement/FY*) Projected Cost=SUM(*Construction&Planning*)+(*ID/InterpSigns*)+(*NewAmenities*)…
Fence	New= $ 14 / linear foot
Camping	Annual Cost=SUM(*MowingEst*)+(*Maint.*)

*A further breakdown of the cost per activity per year can be found in Table 13.

i. Proposed Mountain Bike Trail Alterations

LCPR staff in cooperation with the Florida Mudcutters (the mountain biking group that helps to maintain the trails) manages the mountain bike trails on the north side of CRP. This volunteer-based group donates hundreds of hours each year (Figure 18) in the maintenance and upgrades of existing bike trails and in providing much of the labor for new, approved trails.

The existing mountain bike trails take advantage of the landscape (dredge spoil areas) on the north side of the park making the trails challenging and interesting for riders. The single-track trails are constructed in a stacked loop system, with trail ratings modified from the International Trail Marking System (designates the difficulty of trails used by *skiers* in different parts of the world). Additionally, the bike trails are uni-directional and the allowed direction of travel rotates monthly (clockwise / counterclockwise) to balance out wear and tear to the trail system.

LCPR staff continually meet with representatives from the Florida Mudcutters to gather their input on the current trail system and their requests for the trail system over the next ten years. The Florida Mudcutters expressed a desire that the mountain bike trails at CRP conform, as much as possible, to the standards set forth by the International Mountain Bicycling Association (IMBA). IMBA is a non-profit educational association whose mission it is to create, enhance and preserve great trail experiences for mountain bikers worldwide by encouraging low-impact riding, volunteer trail work participation, cooperation among different trail user groups, grassroots advocacy and innovative trail management solutions. This organization promotes mountain bicycling opportunities that are environmentally and socially responsible. LCPR staff agreed that the standards set forth by IMBA aligned with the goals of CRP.

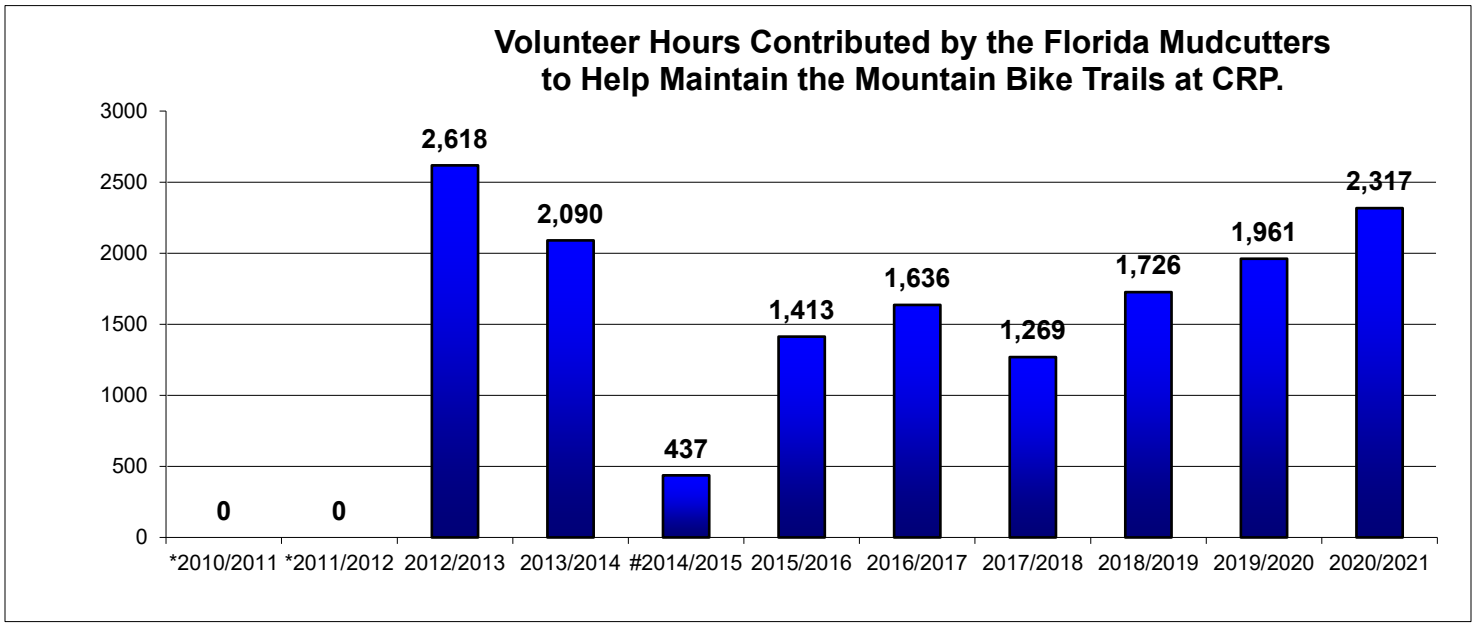

Figure 18: Volunteer Hours Contributed by the Florida Mudcutters (Oct. 2010 - Dec. 2021). Data from LCPR Volunteer Coordinator.

Key: *Missing data, #Reduced numbers during transition to new recording system

In 2010, the IMBA evaluated the mountian bike trails at CRP and provided feedback that was incorperated into the updates that have been done since. *Recommendations made by IMBA that (1) address the safety of the trails; and (2) that align with CRP's goal of natural and cultural resource protection for the site will be implemented with the help of the Mudcutters.* One of the recommendaiton was to decrease the amount of biking and equestrian intersections. While these intersections have been decreased since 2010, the objective is to expand the mountian biking trails north through Bob Janes Preserve, the west to the Alva Equstrian Propertery. This property, while purchased with the intent of equestrian use, as many appealing factors for mountain biking. This property is main spoil from the river dredging, thus creating a "rough and bumpy" terrain style that is appreciated by the mountain biking community. By expaning, the mountian biking trails to this area the interactions between the two user groups will likely decrease. In addition, the equestian trail users will also be offerd an additional access point on to Bob Janes Preserve, thus reducing the interactions further. The mountain biking trails will remain unidirectional for the safty of all users.

The bike trails travel through a mixture of vegetation types, many of which require pruning to maintain a safe trail system for users. Proper pruning techniques will continue to be employed by staff and volunteers at all times for the safety of all users. Among other benefits, proper pruning of tree limbs can aide in the tree's health, structural integrity, and overall appearance. Trees are most benefited by pruning in winter to early spring when the wounds are best able to heal over and degradation from insects or disease are less likely to occur. LCPR staff will continue to coordinate closely with the Florida Mudcutters and other volunteer groups to ensure that information on the identification of flora, proper pruning techniques, etc. is provided. Trail

sections rendered dangerous or unusable through improper pruning techniques or the lack of pruning will be closed until the hazards can be corrected. The greenways and trails program under the Tennessee Department of Environment and Conservation recommends that the passageway for single-track trail be 6 foot wide by 8 foot tall. These dimensions may not be feasible in all locations of the bike trail but should be used where applicable on existing trails and incorporated in all future trail construction. These trail dimensions will provide access for authorized motorized vehicles in emergencies and provide access for stewardship activities.

LCPR staff considered each request made by the Florida Mudcutters and designed a plan consistent with the land stewardship goals of the park, the requests of the Mudcutters, the requests of other user groups, issues related to operations of the park, the safety of all users of the park and the availability of staff resources. Please note, only the approved areas are viable for completion within this 10-year management plan cycle. No other additions or major route modifications will be considered until the next revision of this plan. The loss of volunteer labor will result in the need to close trail sections or delay the construction of new sections of trail. Requests to improve riding experiences by adding berms, hills, skills areas, etcetera on existing trails will be considered by staff on a case-by-case basis. LCPR staff charged with the operation and stewardship of CRP must be consulted before any alterations/ improvements are made.

FDEP's Division of Recreation and Parks has created "Visitor Carrying Capacity Guidelines" which, in part, define optimum carrying capacities for outdoor recreational activities. Their recommendation for bicycle trails is a minimum of 25 acres per mile of trail. The only appropriate areas for extensive mountain bike trails within CRP are located on the north side of the park in areas with a substrate of Caloosa Fine Sands. This soil encompasses approximately 392 acres of the site. The total length of bike trails for CRP recommended by FDEP's Division of Recreation and Parks standard is 15.68 miles. This does not take into consideration the needs of other user groups (e.g., horseback riders) primary purpose of the parcel (conservation/ restoration) or plant community and listed species limitations. Keeping in mind the goal of "balanced public utilization" of the park and the need for reserving areas for stewardship activities, 15.68 miles of bike trails is not recommended for the north side.

Overall Goal: Maintain current trails and alter trails as appropriate.

Short-term (2021-2023) objectives for the maintenance and expansion of the mountain bike trails include:

- With the help of the Mudcutters, continue to implement recommendations made by IMBA that address the safety of the trails and those that align with CRP's goal of and natural and cultural resource protection.
- With the help of the Mudcutters, create a schedule for trail maintenance by the volunteer group.

Long-term (2023-2031) objectives for the maintenance and expansion of the mountain bike trails include:

- Hold meeting with Mudcutters to evaluate the ability of group to maintain current trail system according to LCPR standards (safety, width, height, proper pruning techniques, protection of native vegetation, etc.).

- Create a system to allow the Mudcutters to upload revised trail locaitons to submit to LCPR staff for easy of updating official park trail maps.
- Expand mountain biking trails North through Bob Janes Preserve to connect to the acquired Alva Equestrian Property (to be renamed at time of expansion).

ii. Proposed Equestrian Trail Alterations

LCPR staff in cooperation with the Caloosa Saddle Club (the equestrian group that helps to maintain the trails) manages the equestrian trails on the north side of CRP. Many of the equestrian trails at CRP take advantage of service roads. Unlike the mountain bike trails, the equestrian trails are not rated for riders with different skill sets. In the past few years, LCPR staff has noted a decline in the use of the equestrian trail due to the availability of newly opened trails in other parts of the county.

LCPR staff continually meetwith representatives from the Caloosa Saddle Club to gather their input on the current trail system and their requests fortrail system updates. The Caloosa Saddle Club has requested that LCPR staff look for additional riding locaitons outside of CRP. While the riders will continue to use CRP as a desitaiton, the club has requested a location that open purely for equestrian use. Staff is assessing the possibility of placing an equestrian trailhead at newly acquired property off N River Rd that leads into Bob Janes Preserve. Staff continues to take all requests into consideratio. Please note, only the approved areas are viable for completion within this 10-year management plan cycle. No other additions or major route modifications will be considered until the next revision of this plan.

Overall Goal: Maintain current trails and alter trails as appropriate.

Short-term (2021-2023) objectives for the maintenance and expansion of the equestrian trails include:

- With the help of the Caloosa Saddle Club, create a schedule for trail maintenance by the volunteer group.

Long-term (2023-2031) objectives for the maintenance and expansion of the equestrian trails include:

- Hold meeting with Caloosa Saddle Club and other equestrian enthusiasts to evaluate the ability of group to maintain current trail system according to LCPR standards (safety, width, height, proper pruning techniques, protection of native vegetation, etc.).
- Assess viability of moving equestrian use to recently acquired parcel off CRP.

iii. Proposed Campground Alterations

LCPR staff has been approached by Timberling Glamping Co. to install 4 “glamping” (glamor + camping) sites at CRP (Figure 19). These sites would replace 4 existing primitive camp sites. The glamping sites would include a raised canvas tent, a bed and accessories, air conditioning, and lights. The four sites will be centrally located near the existing restroom facility for ease of electric access. These structures are not intended to be perminant, all camp amenities including

the tent and platform could be deconstructed and removed from the site at anytime. Timberline Glamping Co. has facilities set up in Hillsborough River State Park, 145 miles North of CRP in Thonotonassa, FL. Staff would work with the company to provide potential location within the current camping footprint, as well as assist in site mainteninace.

Overall Goal: Maintain current campsites and expand camping options.

Short-term (2021-2023) objectives for the maintenance and expansion of the campgrounds include:

- Coordinate with Timberline Glamping Co. to assess viable options for placement within the current campground footprint.
- In conjunction with Timberline Glamping Co., create a maintiance plan for LCPR staff.

Long-term (2023-2031) objectives for the maintenance and expansion of the campgrounds include:

- If viable to implement use at park, long-term maintenance would be coordinated.

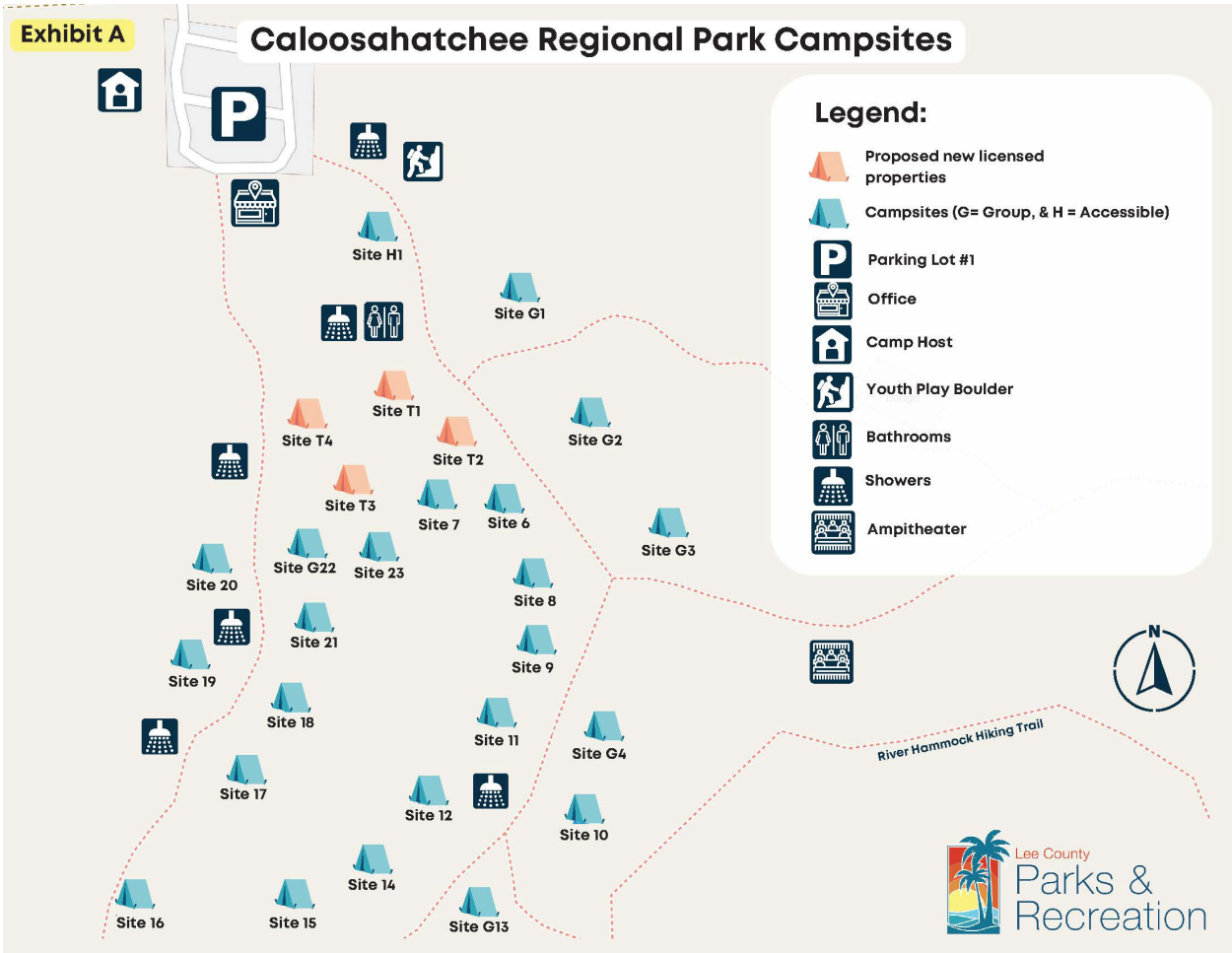

Figure 19: Four Glaping spots to accompany exisiting primitive camping.

iv. Assessment of the Impact of Planned Uses

LCPR and the FDEP have affirmed that the expansion and addition of public access and uses (Figure 21) described above are consistent with acquisition purposes of CRP and comply with the lease held by the BoCC (Appendix A). The impact of these planned uses provides appropriate, resource-based recreational activities while maintaining the goal of natural and cultural resource protection. The following is a summary of the goals for this project:

1. To conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of Florida or a larger geographic area;
2. To conserve and protect native species habitat or state and federally listed species.
3. To provide areas, including recreational trails, for natural resource-based recreation and other outdoor recreation on any part of any site compatible with conservation purposes.

It is the policy of LCPR to provide a diversity of resource-based recreational activities that do not adversely affect natural plant communities and the animals that utilize them. Public needs and desires, as expressed during Public Meetings (Appendix L), as well as a detailed assessment of the impact of planned activities on natural and cultural resources, are considered in the planning and development of recreational opportunities and represent "balanced public utilization." Additionally, uses planned for CRP comply with the Conceptual State Lands Management Plan.

Staff previously assessed the viability of a zip line, a ropes course, and playground facility. These recreational uses ultimatly do not align with the management strategy LCPR wishes to continue at this property.

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G. Analysis of Multiple-Use Potential

The following actions and/ or activities have been considered under the multiple-use concept as possible uses to be allowed on CRP. Uses classified as "Approved" are considered to be in accordance with the purposes for acquisition, in compliance with the lease the BoCC holds with TIITF and in compliance with Lee County Ordinance -18-12 Uses designated as "Conditional" indicate those that may be acceptable but will be allowed only as a means to accomplish land stewardship objectives. Uses classified as "Rejected" (i.e., incompatible) are not considered to be in accordance with one or more of the various forms of guidance available for planning and management:

Table 9: Analysis of Multiple-Use Potential within CRP.

Specific Use	Approved	Conditional	Rejected
Bicycling (in sanctioned areas)	x		
Canoeing/ Kayaking	x		
Ecosystem maintenance	x		
Ecotourism	x		
Environmental Education	x		
Fishing	x		
Hiking (in sanctioned areas)	x		
Horseback Riding (in sanctioned areas)	x		
Preservation of Historic and Cultural Sites	x		
Primitive Camping (in sanctioned areas)	x		
Glamping (in sanctioned areas)	x		
Protection of listed species	x		
Soil and water conservation	x		
Wildlife Observation/ Nature Study	x		
Cattle Grazing/ Livestock Grazing		x	
Timber Harvest		x	
Agriculture		x	
Collection of Cultural or Historic Artifacts			x
Collection of Plants or Animals (Dead or Alive)			x
Hunting			x
Motorized Off Road Vehicle Use			x

H. Acquisition

Fee simple title to the property known as the CRP is held by the TIITF, which consists of the Governor and Cabinet, and by the Governing Board of the South Florida Water Management District (Figure 1). Table 10 provides a history of acquisition by the state.

Refer to the "Legal Obligations and Constraints" section of this document for a description of the easements associated with CRP.

Table 10: Acquisition History of CRP.

Acquisition Date (Date Recorded)	Acreage	Cost	Funding Source*
January 8, 1970	167	$225,000	TIITF
February 23, 1970	167	$225,000	TIITF
January 26, 1971	166	$225,000	TIITF
January 7, 1972	218	$240,000	TIITF
TOTAL	**718**	**$915,000**	**TIITF**

* TIITF = Board of Trustees of the Internal Improvement Trust Fund (State of Florida)

VI. MANAGEMENT ACTION PLAN

CRP will continue to be managed under the "single use" concept as provided in Section 253.034 [2(b)] F.S. The BoCC (via LCPR) is the lead managing agency and as such will be responsible for the stewardship and operation of CRP through the life of the lease. LCPR staff consults with DHR staff before taking actions that may adversely affect archaeological or historic resources. Safeguarding and enhancing the environmental integrity and biological diversity of the site will be the guiding principle for its operation and management.

Desired outcomes of the management of CRP include providing resource-based recreational public access, preserving and protecting natural resources, protecting cultural and historical resources, restoring/ reclaiming habitat, protecting threatened and endangered species and controlling the spread of nonnative plants and animals.

A. Land Management Review

The following paragraphs constitute a review of goals set for the management of CRP within the previous resource management plan (LCPR 2010) and the degree to which they have been met. The *italicized text* identifies the content from the previous plan (LCPR 2010). Refer to the "Goals and Strategies (Short-term/ Long-term)" section for planned stewardship goals for the upcoming ten-year period.

Prescribed Burning/ Fire Management

Overall Goal: Reestablish a fire regime conducive to maintenance of pyric plant communities *(Figure 25).*

Short-term objectives - 2011 - 2013

- *Develop a prescribed burn plan.*
- *Reintroduce prescribed fire to pyric communities (Units 2, 4, 5 and 6; Units A, B and C: ~ 345.17 acres)*

Long-term objectives - 2013 - 2021

- *Reintroduce prescribed fire to Unit 1 (FY 2015/2016)*
- *Continue to use prescribed fire on a two to six year fire return interval on fire-adapted communities (based on site specific conditions). This will include Units 7 and 8 when feasible.*

Due to funding and staffing across the county, a fire regime conducive to the maintenance of pyric plant communities was unable to be created and completed.

Habitat Restoration and Improvement

Overall Goal: Restore/ Reclaim plant communities as appropriate.
Short-term objectives - 2011 - 2013

- *Develop a prescribed burn plan.*
- *Survey and map exotic, invasive plants by stewardship unit.*
- *Reintroduce prescribed fire to pyric communities (Units 2, 4, 5 and 6; Units A, B and C: ~ 345.17 acres)*
- *Continue treatment of exotic, invasive plants (~350 acres)*

Long-term objectives - 2013 - 2021

- *Develop comprehensive restoration plan for dredge spoil areas on the north side of the park.*
- *Plant test plots on north side to mimic natural plant communities found in south Florida*
- *Monitor test plots for success (based on overall survival of plants without the aid of human intervention once established).*
- *Reintroduce prescribed fire to Unit 1 (FY 2015/2016)*
- *Continue to use prescribed fire on a two to six year fire return interval on fire-adapted communities based on site specific conditions. This will include Units 7 and 8 when feasible.*
- *Continue treatment of exotic species as needed.*

Exotics are surveyed and mapped as needed for treatment purposes. Consistant prescribed fire was not feasible within the last 10 year cycle. A new prescribed fire regime has been created for the next 10 years. Habitat is restored on an as needed basis, taking into considering severity of the area and funding.

Hydrological Preservation and Restoration

Overall Goal: Restore and maintain the site hydrology as much as possible given the major topographic changes that have occurred.
Short-term objectives - 2011 - 2013

- *LCDNR will complete and implement the Fichter's Creek Restoration Plan.*
- *Complete pilot Shoreline Stabilization Project.*
- *Continue to control exotic vegetation in wetland areas.*

Long-term objectives - 2013 - 2021

- *If feasible, develop a stabilization plan for the shoreline areas experiencing high levels of erosion.*

Fitcher's Creek Restoration Plan was completed in 2017 and continual maintenance and monitoring has been set up in conjunction with Lee County Natural Resources department. The Phase 1 of the Shoreline Stabilization Project was completed in 2015, followed by Phase 2 in 2022. The entirety of the southern shoreline has been stabilized. The maintenance of this

renewed shoreline falls on the park staff. Exotic control projects are completed on an as needed basis within the park boundaries.

Sustainable Forest Management

Overall Goal: Conduct Sustainable Forest Management practices if and when appropriate.
Short-term objectives - 2011 - 2013

- *If appropriate, consult with the Division of Forestry to complete a Timber Assessment.*

Long-term objectives - 2013 - 2021

- *Continue to consult with the Division of Forestry regarding sustainable forest management activities as appropriate.*

It was deemed by staff that it was not in line with the management objectives of CRP to perform any sustainable forestry operations, such as timber harvesting. Thus the previous goals were not completed and will not be moved forward to this iteration of the plan, but will be combined with the prescribed fire/ fire management section.

Exotic and Invasive Species: Maintenance and Control

Overall Goal: Control all invasive plants and animals to at least a maintenance level.
Short-term objectives - 2011 - 2013

- *Complete the Guineagrass experiment as described above.*
- *Develop a work plan with volunteer base focused on exotic control.*
- *Provide ―Basic Herbicide Short Courses‖ for volunteers as needed.*
- *Survey and map exotic, invasive plants by stewardship unit.*
- *Continue treatment of exotic, invasive plants (~350 acres)*

Long-term objectives - 2013 - 2021

- *Continue to use prescribed fire on a two to six year fire return interval on fire-adapted communities. This will include Units 7 and 8 when feasible.*
- *Continue treatment of exotic species as needed.*
- *Develop comprehensive restoration plan for dredge spoil areas on the north side of the park.*

LCPR staff conducted an experiment on the efficacy of selected herbicides on the control of Guineagrass. Education of the public on (1) the impact if invasive species on natural areas; (2) the needs and realities (e.g., restoration is a long-term endeavor, aesthetics of the park may decline in the short term) of restoration; and (3) their vigilance in halting the spread of exotics is crucial to attaining long-term stewardship goals (Appendix H). Due to funding and staff availability herbicide courses were not able to be provided to the volunteer staff at the park. On a yearly basis staff surveys the exotic coverage in each management unit and assessment the required treatment. The feasibility of fire in the management units is an ongoing project and is completed on an as needed basis and when staff time and funding is available.

Imperiled Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration

Overall Goal: Conduct stewardship activities conducive to the long-term survival of imperiled species within CRP.
Short-term objectives - 2011 - 2013

- *Maintain comprehensive lists of the flora and fauna of the park.*

Long-term objectives - 2013 - 2021

- *In cooperation with FWC, develop a Wildlife Management Strategy that addresses all appropriate fish and wildlife species, including appropriate imperiled species, their habitats, and their sustainability based on site-specific population data. In conjunction with this strategy, develop and institute a monitoring program as funding and staffing allows.*
- *Continue to use prescribed fire on a two to six year fire return interval on fire-adapted communities. This will include Units 7 and 8 when feasible.*
- *Continue treatment of exotic species as needed.*
- *Develop comprehensive restoration plan for dredge spoil areas on the north side of the park.*

The comprehensive list of flora and fauna is updated as assessments are done of the property, through volunteers and public observations (with staff confirmation). Prescribed fire is used when appropriate and feasible to assist in habitat health, exotics are treated, and other management activities, such as roller chopping, is done to improve species habitat. Park staff base management decisions for imperiled species on the recommendation made by FWC in the Imperiled Species Management Plan (2016). Site specific management recommendations in conjunction with FWC were not completed.

B. Stewardship Unit Descriptions

CRP has been divided into eighteen units to better organize and achieve stewardship goals (Table 11). Acreages were calculated within ArcGIS Pro 3.0. Due to rounding values up or down, these numbers are close approximations. Parking lots and entrance roads are not included within any stewardship unit. Figure 22 delineates the stewardship units that were created based on existing trails, roads, ditches, berms, stewardship needs and plant communities. Figure 23 shows these units superimposed on the eleven plant communities found within CRP (refer to "Natural Plant Community" section for descriptions of these land cover types). Many of the easements associated with CRP (discussed in the "Legal Obligations and Constraints" section of this document) cross the boundary lines of the delineated stewardship units. A map showing the spatial relationship of the stewardship units and easements is provided in Appendix I.

Prescribed burns may not exactly match the stewardship units shown. Burns will be conducted within pyric communities based on abiotic and biotic conditions present in addition to the availability of the appropriate equipment, staffing level and funding.

Table 11: Stewardship Unit Names and Associated Acreages.

North Side Unit Name	Acres*	South Side Unit Name	Acres*
Fichter's Creek Unit	44.20	Unit A	45.27
Unit 1	28.63	Unit B	25.56
Unit 2	39.01	Unit C	51.81
Unit 3	14.59	Unit D	29.79
Unit 4	58.43	Unit E	2.90
Unit 5	65.08	Unit F	29.64
Unit 6	62.65	Unit G	57.00
Unit 7	102.25	Unit H	32.07
Unit 8	58.32	Unit I	12.76

** Due to rounding values up or down, these numbers are close approximations. Entrance roads and parking lots are not included in these units.*

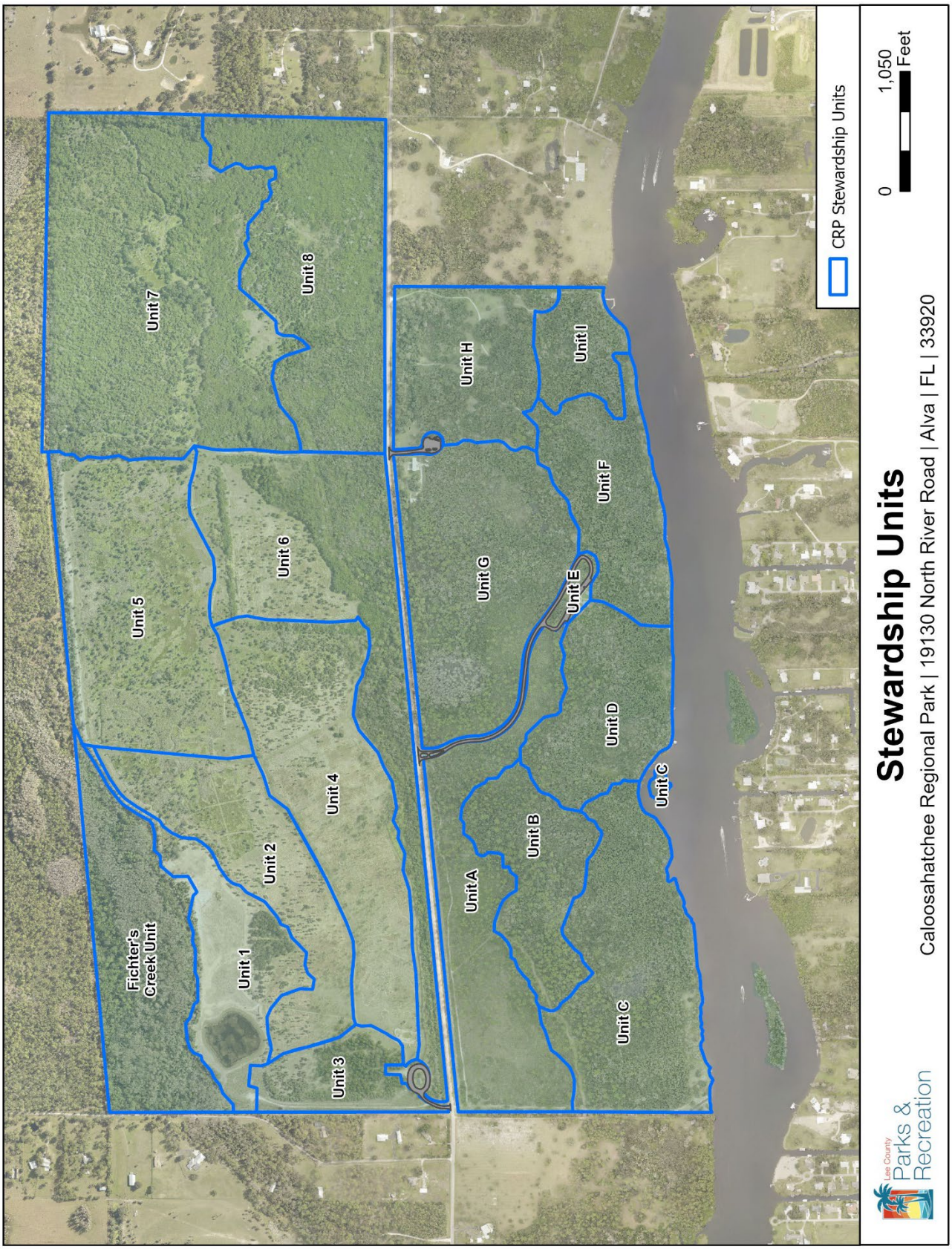

Figure 22: Stewardship Units within CRP.

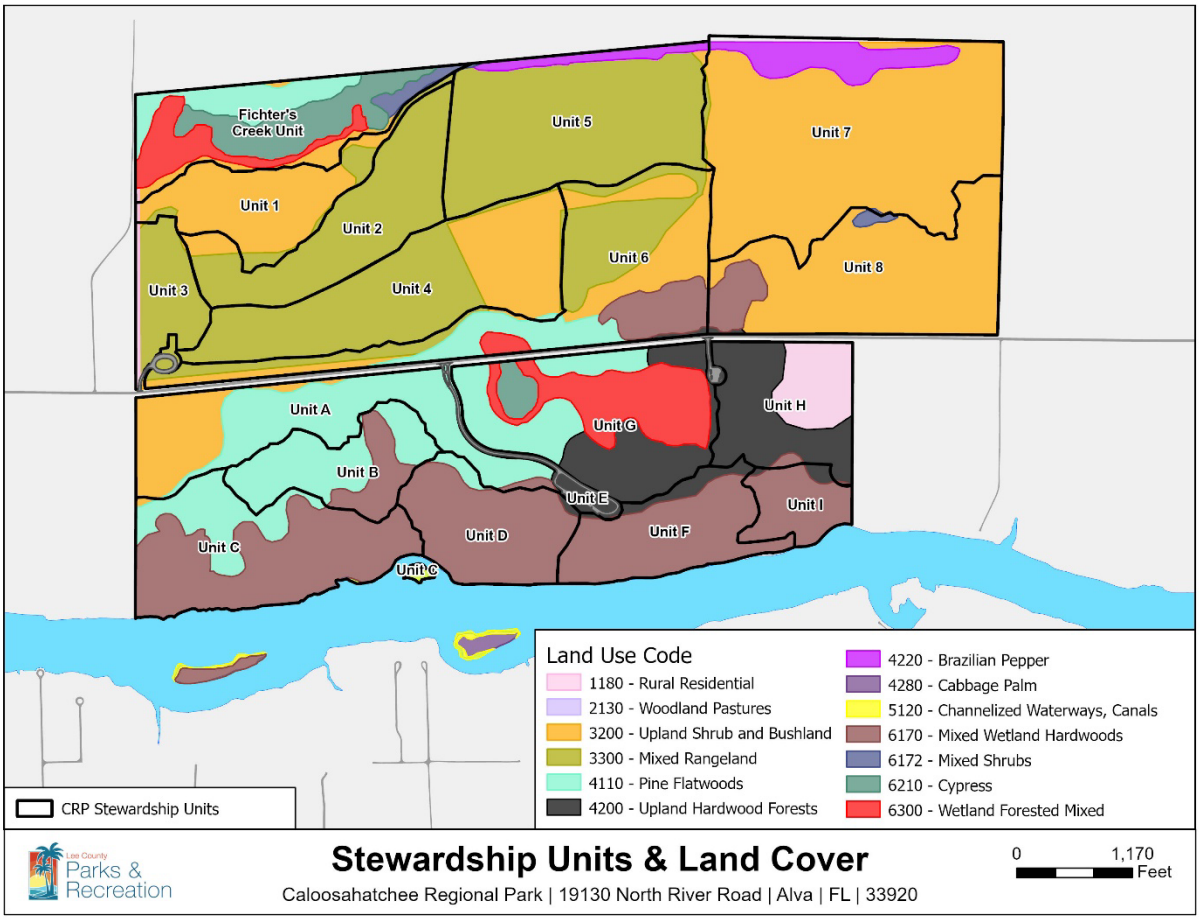

Figure 23: Stewardship Units and Land Cover Types within CRP.

Stewardship activities on all of these units will focus on the control of invasive, exotic plants and animals, prescribed fires where appropriate and restoration (planting of native flora) when needed. The protection of listed plants and animals and the habitats in which they live will be the guiding principle of these activities. The following paragraphs describe each stewardship unit at CRP.

- Fichter's Creek Unit (approximately 41.86 acres): The Fichter's Creek stewardship unit is located on the extreme northwest corner of the site and bounded on the west and north by the park's boundary lines. Portions of the mountain bike and equestrian trails constitute the southern/ eastern boundary of the unit; otherwise, this unit contains no public access trails. As the name suggests, Fichter's Creek and the associated wetlands are located within this unit. The creek runs from a northeast to southwest direction through the unit. The Fichter's Creek stewardship unit is comprised of primarily of wetlands (FLUCCS 6210 and 6300). A small area of uplands (FLUCCS 3200) exists on the southern portion of this unit. Wabasso Sand, Pineda Fine Sand (depressional), Copeland Sandy Loam (depressional) and Boca Fine Sands underlie this portion of the site.

As a requirement of LCDNR obtaining the required permits from the SFWMD (Application Number 090504-3; Permit Number: 36-03165-P) to go forward with the Fichter's Creek Restoration Project, the following conditions will be placed on the Fichter's Creek Stewardship Unit for the remainder of the lease period (Appendix A; Lease No. 3698) between TIITF and Lee County.

Lee County agrees not to undertake or authorize any activity on or use of the Fichter's Creek stewardship unit that is inconsistent with the following language. Without limiting the generality of the foregoing, the following activities and uses are expressly prohibited within this unit:

(a) Constructing or placing buildings, roads, signs, billboards or other advertising, utilities or other structures on or above the ground.

(b) Dumping or placing soil or other substance or material as landfill or dumping or placing of trash, waste or unsightly or offensive materials.

(c) Removing, trimming, or destroying native trees, shrubs or other vegetation within the stewardship unit. All nonnative species, including those identified by FLEPPC, are exempt from this requirement.

(d) Excavating, dredging or removing loam, peat, gravel, soil, rock or other material substances in such a manner as to affect the surface.

(e) Surface use, except for purposes that permit the land or water area to remain predominantly in its natural condition.

(f) Activities detrimental to drainage, flood control, water conservation, erosion control, soil conservation or fish and wildlife habitat preservation.

(g) Acts or uses detrimental to such retention of land or water areas.

(h) Acts or uses detrimental to the preservation of the structural integrity or physical appearance of sites or properties of historical, architectural, archaeological, or cultural significance.

The portions of the mountain bike and equestrian trails that constitute the southern/ eastern boundary of the Fichter's Creek stewardship unit will be maintained for the protection natural resources and the safety of the public. Nonnative trees, shrubs and other vegetation will be treated and/ or removed dependent on funding and staffing availability. Native trees will be pruned to the standards of the American National Standards Institute (ANSI) and as specified within the LCPR Operations Manual. While trail maintenance may be necessary from time to time, these activities and the trail itself will not impact the wetlands (FLUCCS 6210, 6250 and 6300) within the unit.

- Unit 1 (approximately 28.63 acres): The Unit 1 stewardship unit is located on the northwest corner of CRP and is bounded on the north by the Fichter's Creek stewardship unit. A majority of the southern/ eastern boundary of Unit 1 is an equestrian trail; the remainder of the southern boundary is a mowed line. The western boundary of Unit 1 is the western boundary of CRP. This stewardship unit is comprised of upland shrub and brushland and rangeland (FLUCCS 3200 and 3300) and Caloosa Fine Sand (dredge spoil)

underlies this portion of CRP. In addition to the equestrian trails that form the boundaries of this stewardship unit, a portion of the site's mountain bike trails are within this unit.

The upland shrub and brushland (FLUCCS 3200) portion of this stewardship unit will be impacted by the Fichter's Creek Restoration Project. A goal of this project is to restore the appropriate hydroperiod and water quality within Fichter's Creek to maintain a functioning ecosystem. Additional benefits include alleviating risks of the flooding of neighboring properties in the vicinity of Fichter's Creek. An approximately 3.2-acre lake and three dry detention areas totaling approximately 7.1 acres associated with this endeavor are projected to be created within the Unit 1 stewardship unit. Figure 24 shows the approximate locations of the components of the Fichter's Creek Project and Appendix K provides greater detail about the project.

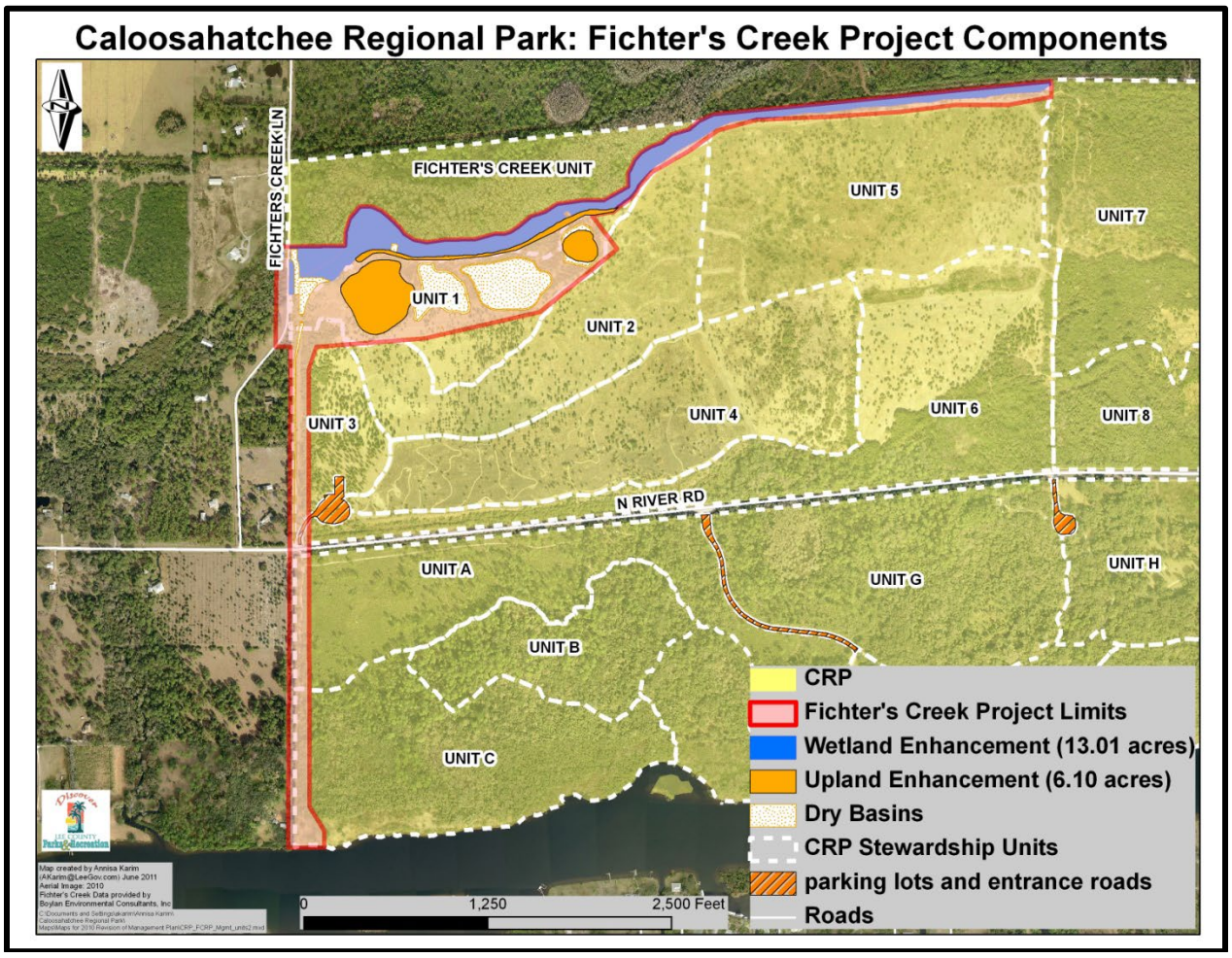

Figure 24: Fichter's Creek Project Limits, Wetland Enhancement Area and Upland Enhancement Area.

- Unit 2 (approximately 39.01 acres): Unit 2 is located on the western portion of the north side of CRP. It is bounded on the north by Unit 1; the bulk of this boundary line is comprised of equestrian trails. A small portion of the northern boundary is a mowed line. The Unit 2 stewardship unit is bounded on the east by Unit 5 and on the south by Unit 4; both of these boundary lines are equestrian trails. Unit 3 is located to the west of Unit 2 and a majority of this boundary line is also an equestrian trail. This stewardship unit is comprised of rangelands (FLUCCS 3300) and Caloosa Fine Sand (dredge spoil) underlies

this portion of the site. In addition to the equestrian trails that form the boundaries of this stewardship unit, a portion of the site's equestrian trails are also within this unit.

- Unit 3 (approximately 14.59 acres): Unit 3 is located along the western boundary of the north side of CRP. Unit 3 is bounded on the north by Unit 1. This boundary line is comprised of a mowed line and mountain bike trails. Unit 3 is bounded on the east by Units 1, 2 and 4. This boundary line consists of equestrian trails and mowed lines. The southern boundary for the Unit 3 stewardship unit is the north side parking lot and approximately 27 feet of the southern boundary of the portion of CRP north of C. R. 78. Red cedar was planted on approximately 6 acres of this unit. This stewardship unit is comprised of rangelands (FLUCCS 3300) and Caloosa Fine Sand (dredge spoil) underlies this portion of the site. In addition to the equestrian trails that form portions of the boundaries of this stewardship unit, a mountain bike trail runs through the unit in a north/ south direction.
- Unit 4 (approximately 57.68 acres): Unit 4 occupies the central and western portion of the north side of CRP. Except for approximately 107 feet of its western boundary (parking lot), equestrian trails make up the entirety of Unit 4's boundary lines. This unit is bounded on the north by Units 2 and 5, on the east and south by Unit 6 and on the west by the parking lot and Unit 3. This stewardship unit is comprised of upland shrub and brushland and rangelands (FLUCCS 3200 and 3300) and Caloosa Fine Sand (dredge spoil) underlies this portion of the site. In addition to the equestrian trails that form the majority of the border of this unit, a majority of the Sunburn Meadow and Light Bulb mountain bike trails are found within this unit. An equestrian trail runs through the Unit 4 stewardship unit in a northwest to southeast direction roughly at the boundary between FLUCCS 3200 and FLUCCS 3300.
- Unit 5 (approximately 63.15 acres): The Unit 5 stewardship unit is located along the northern boundary of the north side of CRP. Equestrian trails from the boundaries on the western, southern and eastern sides of this unit. Unit 5 is bounded to the west by the Fichter's Creek Unit and Units 1 and 2. Units 4 and 6 are directly south of the Unit 5 stewardship unit. This unit is bounded on the east by Unit 7. This stewardship unit is comprised of rangelands (FLUCCS 3300) and Caloosa Fine Sand (dredge spoil) underlies this portion of CRP. Mountain bike trails and equestrian trails are found on the periphery of this unit.
- Unit 6 (approximately 63.39 acres): Unit 6 is located along the southern boundary of the north side of CRP. While oddly shaped, this unit takes advantage of public access trails (equestrian) as logical boundaries. In addition to the equestrian trails that form the boundaries or a majority of this unit, mountain bike trails exist within this area. Unit 6 is bounded from west to east by the parking lot and Units 4, 5, 7 and 8. The Unit 6 stewardship unit is comprised of rangelands, upland forests and wetlands (FLUCCS 3200, 3300, 4110, 6170 and 6300). Six, mapped soils form the substrate of this stewardship unit: Caloosa Fine Sand (dredge spoil), Copeland Sandy Loam (Depressional), Immokalee Sand, Wabasso Sand (Limestone Substratum), Wabasso Sand and Oldsmar Sand.
- Unit 7 (approximately 102.25 acres): Unit 7 is the largest stewardship unit within CRP. Its northern and eastern boundaries correlate to the northern and eastern boundaries of the

north side of the park. The western boundary line of this unit is made up of equestrian trails and service roads. The majority of the southern line is comprised of equestrian trails. The Unit 7 land stewardship unit contains both equestrian and a large portion of mountain bike trails. A majority of this unit is classified asupland shrub and brushland (FLUCCS 3200) ; the SFWMD 2014-2019 land use data also classifies a small portion of this unit as upland forest (FLUCCS 4220) and wetlands (FLUCCS 6172). Caloosa Fine Sand (dredge spoil) forms the substrate of a majority of this unit while Wabasso Sand is mapped in the extreme southeast corner of the unit.

- Unit 8 (approximately 58.47 acres): The Unit 8 stewardship unit is located along the southern boundary of the north side of CRP. Its southern and eastern boundaries coincide with the southern and eastern boundaries of the north side of the park. The western boundary of this unit is a service road and the northern boundary is an equestrian trail. The Unit 8 stewardship unit is bounded on the west by Unit 6 and on the north by Unit 7. Other than the equestrian trail that forms its northern boundary, there are no other equestrian trails within this unit. Mountain bike trails do exist within this unit. A majority of this unit is classified as upland shrub and brushland (FLUCCS 3200) the SFWMD 2014-2019 land use data also classifies a small portion of this unit as wetlands (FLUCCS 6170 and 6172). Caloosa Fine Sand (dredge spoil) forms the substrate of a majority of this unit while Wabasso Sand is mapped in the extreme northeast corner of the unit and Wabasso Sand, Limestone Substratum is mapped for the southwestern portion of the unit.
- Unit A (approximately 45.27 acres): Unit A is located on northwest corner of the south side (area of the park south of C. R. 78) of CRP. Its northern and western boundaries correlate to the northern and western boundaries of the south side of the park. The eastern boundary is the main entrance road to CRP and the southern boundary is a portion of the Palmetto Path hiking trail. In addition to the hiking trail that forms the southern boundary of this unit, a hiking trail runs in a north-south direction along the western boundary line. The Kellum Homesite is also located within this unit. The SFWMD 2014-2019 land use data maps two upland communities within this unit: shrub and brushland (FLUCCS 3200) and upland coniferous forest (FLUCCS 4110). Immokalee Sand and Oldsmar Sand form the majority of the substrate of this unit while Wabasso Sand and Copeland Sandy Loam (Depressional) soils underlie a small part of this unit.
- Unit B (approximately 25.56 acres): Unit B is located on the south side of CRP. The Palmetto Path forms the entire boundary of this unit. Other than this hiking trail, no other public access trails exist within this unitThe Unit B stewardship section is bounded on the north by Unit A and to the south by Units C and D. Upland coniferous forest (FLUCCS 4110) and mixed wetland hardwoods (FLUCCS 6170) are the mapped natural plant communities within this unit. Bradenton Fine Sand, Copeland Sandy Loam (Depressional), Wabasso Sand, Immokalee Sand and Oldsmar Sand form the substrate of this stewardship unit.
- Unit C (approximately 51.11 acres): Unit C is located on southwest corner of the south side (area of the park south of C. R. 78) of CRP. Its southern and western boundaries correlate to the southern and western boundaries of the south side of the park. The eastern boundary line of this unit is the Oxbow hiking trail and the northern boundary line is a portion of the Palmetto Path hiking trail. In addition to these hiking trails, a

hiking trail runs through this unit. Three communities are mapped within this unit. Shrub and brushland (FLUCCS 3200) is mapped for in the extreme northwest corner of this area. Upland coniferous forest (FLUCCS 4110) and mixed wetland hardwoods (FLUCCS 6170) are mapped in a majority of this unit. Immokalee Sand and Oldsmar Sand form the majority of the substrate of this unit while Wabasso Sand and Copeland Sandy Loam (Depressional) soils underlie a small part of this unit. Bradenton Fine Sand, Copeland Sandy Loam (Depressional) and Wabasso Sand underlie the Unit C stewardship area.

- Unit D (approximately 29.79 acres): Unit D is located along the southern boundary (shoreline) of CRP. Hiking trails form the western, northern and eastern boundaries of this unit. The Fishing Pier, Shoreline hiking trail and portions of the Oxbow trail are located within this area. The Overlook is located at the southern terminus of the Overlook Trail. This trail serves as the eastern boundary of this unit. Unit D is bounded on the west by Unit C, on the north by Units A and B, on the east by Units E and F and on the south by the Caloosahatchee River. A majority of this unit is mapped as mixed wetland hardwoods (FLUCCS 6170). The rest of the unit is mapped as upland coniferous forest (FLUCCS 4110). Copeland Sandy Loam (Depressional) and Wabasso Sand form the substrate of this stewardship area.
- Unit E (approximately 2.90 acres): Unit E is the smallest stewardship unit delineated for CRP. This unit is bounded by the main entrance road and the associated parking area. Two picnic pavilions, the main entrance offices and restroom facilities are located within this unit. This area is the point at which day users may access the park's hiking trails. The periphery of this unit is maintained as mowed turf. Approximately 1.35 acres of the unit consists of shade trees and mowed turf. Other than the control of exotic, invasive plants and animals, no stewardship activities will take place within this unit. This unit is bounded on the west by Unit A on the north by Unit G, on the southeast by Unit F and on the southwest by Unit D.
- Unit F (approximately 29.62 acres): Like Unit D, Unit F is located along the shoreline of CRP. It is bounded from west to east by Units D, E, G, H and I. Hiking trails form the boundaries if Unit F. Additionally, portions of the River Hammock and Shoreline trails are located within this unit. The Overlook is located at the southern terminus of the Overlook Trail. This trail serves as the western boundary of this unit. A majority of this unit is mapped as mixed wetland hardwoods (FLUCCS 6170). The northern portion of the unit is mapped as upland hardwood forests (FLUCCS 4200). Copeland Sandy Loam (Depressional) and Bradenton Fine Sand are the mapped soils for this unit.
- Unit G (approximately 57.00 acres): Unit G is the largest stewardship unit on the south side (portion of CRP south of C. R. 78) of the park. Its northern boundary line coincides to the northern boundary line of the south side of the park. It is bounded on the west by the main entrance road, to the south by Units E and F, and to the east by the campground entrance road and Unit H. Except for the hiking trails that from portions of the southern and eastern boundary lines of this unit, no other public access trails are currently located within the unit. A service road, the camp host site and the maintenance area are situated in the northeast corner of this unit. Four shower facilities and three campsites are located along the eastern boundary of Unit G. In 2017, a maintenance building was constructed in the northeast corner of the unit. The maintenance building is located west of the

campground parking area and is used to house staff equiptment. COM2016-01378 was approved and can be found in Appendix J. The SFWMD 2014-2019 land use dataset designates four land cover types for this unit: upland hardwood forests (4200),upland coniferous forest (FLUCCS 4110), cypress (FLUCCS 6210) and wetland forest mixed (FLUCCS 6300). Bradenton Fine Sand, Wabasso Sand (Limestone Substratum), Wabasso Sand, Copeland Sandy Loam (Depressional) and Oldsmar Sand comprise the substrate of Unit G.

- Unit H (approximately 32.07 acres): Unit H is located in the northeast corner of the south side of CRP. Its northern and eastern boundary lines correlate with the northern and eastern boundary lines of the south side of the park. This unit is bounded on the west by Unit G and on the south by Unit I. Numerous trails are located within this area. Additionally, two equestrian campsites, sixteen campsites, two restroom facilities, four shower facilities, the lodge and the campground offices are located within this unit. Unit H is mapped as upland hardwood forests(FLUCCS 4200) and low density residential (FLUCCS 1180). Bradenton Fine Sand is mapped for a majority of this unit. Copeland Sandy Loam (Depressional) and Wabasso Sand are also mapped for this unit.
- Unit I (approximately 12.76 acres): Unit I is located on the southeast corner of the south side of CRP. Like Units C, D and F, this unit's southern boundary is the northern bank of the Caloosahatchee River. This stewardship unit's eastern boundary coincides with the eastern boundary of the south side of CRP. Campground trails serve as the northern boundary line for this unit while the River Hammock trail and the Shoreline trail form the western boundary of this unit. Unit I is bounded on the west by Unit F and to the north by Unit H. Public hiking trails and the Kayak (Blueway) Launch are located within this unit. The SFWMD 2004 land use dataset designates two land cover types for this unit: upland hardwoo forests (FLUCCS 4200)and mixed wetland hardwoods (FLUCCS 6170). Bradenton Fine Sand and Copeland Sandy Loam (Depressional) are the mapped soil types for Unit I. The Shoreline Stabilization Project along the southeastern 291 linear feet of this unit has been completed. Refer to the Legal Obligations and Constraints section of this document for a description of the Shoreline Stabilization Project.

C. Goals and Strategies (Short-term/ Long-term)

Safeguarding and enhancing the environmental integrity and biological diversity of CRP is the primary goal and the guiding principle for the operation and management of the park. The primary stewardship objectives for CRP are appropriate habitat improvements for listed species, continued prescribed burning within the appropriate communities at appropriate intervals and the continued control of invasive, exotic plants and animals.

The following goals and objectives have been developed specifically for CRP. They represent ideas of LCPR personnel in charge of managing and protecting the area. Target dates for completion of objectives are classified as short-term (first two years) or long-term (up to ten years).

The following is a description of how each of these goals will be carried out. A projected timetable outlining when each activity will take place may be found in the "Projected Timetable for Implementation" section.

i. Sustainable Forest Management- Prescribed Burning/ Fire Management

Historically arising from lightning strikes, fire renews and sustains fire-dependent ecosystems and the associated flora and fauna. Prescribed burning, as a surrogate for natural fire, is essential for the perpetuation, restoration, and stewardship of many natural plant communities. Specifically, prescribed fire may be used to reduce fuel loads, improve wildlife habitat, enhance recreational resources, decrease the rate of invasion by certain exotic species, reduce pest insect populations and aid in the restoration the native, fire-dependent ecosystems (Monroe et al. 2006, Stevens and Beckage 2010). Periodic fires enable pyric communities to remain within the seral or intermediate stage of community succession (e.g., allows a pine flatwood to remain a pine flatwood system instead of transitioning to an oak dominated system). Periodic fires subsequently facilitate the long-term survival of the plants and animals that have adapted to this transitional stage. Alternatively, the exclusion of fires allows these transitional stages to mature until a climax hardwood community exists. Additionally, the lack of fire in pyric communities results in heavy fuel accumulation (e.g., leaf litter on the ground, dense vegetation) which, in turn, results in increased wildfire hazards. Florida Statutes in Chapter 590 and FAC Chapter 5I-2 govern the use of prescribed fire in Florida.

Conducting prescribed fires within pyric plant communities and at appropriate intervals is crucial to achieving some of the desired outcomes at CRP. These outcomes include restoring habitat, protecting threatened and endangered species and controlling the spread of some species of invasive plants. These outcomes are in accord with Section 253.034 of the Florida State Statutes and with the goals of LCPR.

A majority of the north side of CRP was largely mapped as containing secondary succession stage of pyric communities. However, the heavy infestation of Guinea and cogongrasses on nearly 200 acres (primarily within portions of Units 2-6) and Brazilian pepper on approximately 160 eastern acres (Units 7 & 8) of the north side currently precludes the use of prescribed fire as a management tool (see "Exotic and Invasive Species: Maintenance and Control" section below). If practicable, once reclaimation efforts have concluded within these heavily altered northern units, it may be plausible to reintroduce prescribed burning. The Shrub and Brushland (FLUCCS 3200; FNAI Classification – Dry Prairie) and Pine Flatwoods (FLUCCS 4110; FNAI Classification – Mesic Flatwoods) areas of the south side of the park are classified as pyric communities. These plant communities are located within stewardship units A, B and C. These will be burned at appropriate intervals contingent on suitable weather conditions and the availability of staff and funding. These plant communities are described in detail in the "Natural Plant Communities" section of this document. The "Projected Timetable for Implementation" provides the projected sequence of prescribed burns by unit.

Overall Goal: Reestablish a fire regime conducive to maintenance of pyric plant communities (Figure 25).

Short-term objectives - 2021 - 2023

- Develop a prescribed burn plan.
- Develop burning treatment plan to be used in appropriate pyric communities for exotic maintenance.

Long-term objectives - 2023 - 2031

- Reintroduce prescribed fire to southern pyric communities (within Units A, B and C: ~ 77 acres)
- Reintroduce prescribed fire to Unit 1 (FY 2025/2026) once LCNR monitoring efforts have concluded.
- Continue to use prescribed fire on a two to six year fire return interval on fire-adapted communities (based on site-specific conditions). This may include other northern units when feasible.

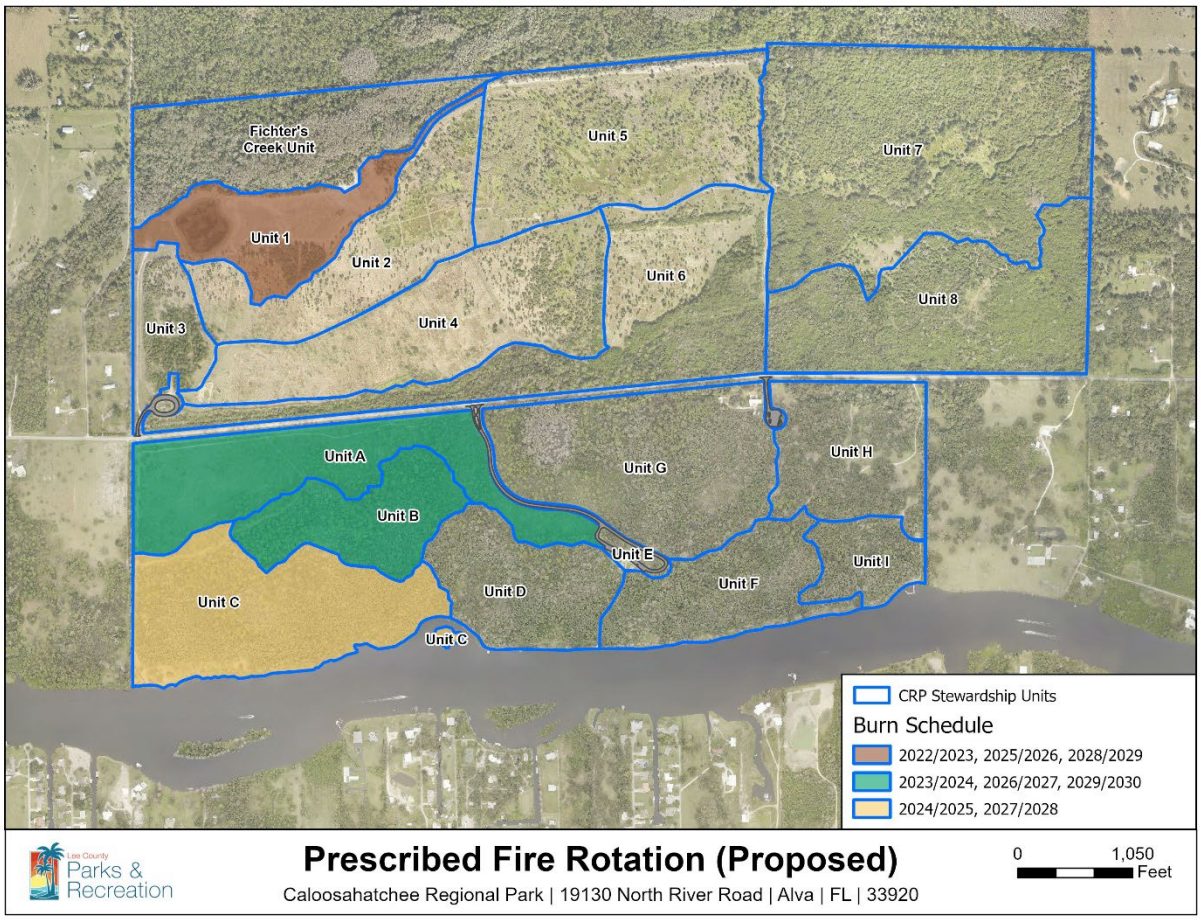

Figure 25: Proposed Prescribed Burn Rotation

Sustainable Forest Mangement Budgeting and Costs*:

Fireline	New= $ 12 / linear foot			
Mow=(*#Events**(150+(120**#Days*)+(*EquipmentCost***#Days*)))				
Disk=(*#Events**(150+(120**#Days*)+(*EquipmentCost***#Days*)))				
Mobilization= $ 150 / Event	Equipment Costs:	[Kub/JD]	Mow= $ 43 / Day	Disk= $ 51 / Day
Fuel= $ 120 / Day		[NewHol]	Mow= $ 53 /	Disk= $ 51 / Day

	Day
Rx Burns	$ 872 / BU

*A further breakdown of the cost per activity per year can be found in Table 13.

ii. Habitat Restoration and Improvement

The primary stewardship challenge at CRP is the restoration of the approximately 392 (~51.92% of the park) acres of Caloosa Fine Sand on the north side of the park. This "soil" is the dredge spoil area that resulted from the dredging of the Caloosahatchee River. Because of the increased elevation, invasive exotic vegetation has dominated the site and exotic grasses currently are the most problematic group creating a consistent monoculture over much of the site. It must be noted that the "restoration" of this site is not feasible because of the difficulty and cost of returning the site to natural grade. "Reclamation" with native plant species may better describe the strategy proposed in this plan. LCPR staff is systematically addressing this issue. Returning the system to a natural fire regime, controlling invasive exotic species and planting native species (when feasible) will aid in the reclamation and improvement of the site.

The south side of CRP (portion of the park south of C. R. 78) contains healthy communities with native vegetation. Controlling the invasive plant species on the south side is the primary stewardship objective.

Overall Goal: Restore/Reclaim plant communities as practical.

Short-term objectives - 2021 - 2023

- Brush reduction where required in southern pyric communities (using FECON mower or roller chopping) prior to prescribed burning.
- Ongoing invasive plant control treatments (Fichter's, Units 1, 3, A-I - ~375 acres).

Long-term objectives - 2023 - 2031

- Develop comprehensive restoration plan for dredge spoil areas on the north side of the park.
- Continue follow up maintenance on invasive exotic species.
- If restoration/reclaimation on northern disturbed plant communities has occurred, begin invasive plant species control in restored units.

Habitat Restoration and Improvement Budgeting and Costs*:

Upland Restoration	$ 2756 / acre		
Mechanical Brush Reduction	$ 400 / acre		
Exotics	Low= $ 100 / acre	Medium= $ 500 / acre	High/Initial= $1300 / acre
Annual Cost=SUM("LOW"&"Medium")/*TreatmentRotation#*		Initial Cost=SUM("High/Initial") ← Out of rotation	

*A further breakdown of the cost per activity per year can be found in Table 13.

iii. Hydrological Preservation and Restoration

Hydrological considerations are a significant factor in land stewardship efforts at CRP relative to maintenance of the plant communities dependent on a wetland hydroperiod. The channelization of the Caloosahatchee River by the USACOE has resulted the continued erosion of the almost vertical bank caused by the frequency and speed of the boats traveling the river, especially in the winter months. This underscouring and erosion of the shoreline southern boundary of the park is the most significant stewardship challenge on the south side of the park.

Drainage within the park is mostly internal except for Fichter's Creek, located in the northwest corner of the park. The Fichter's Creek Restoration was an Improvement Project to increase water quality treatment and enhances flood protection within the Fichter's Creek Watershed. This project included the creation of three detention, a filter marsh, and culverts and ditches. The project was completed in 2017 and continues to be monitored by Lee County's Natural Resources department.

Overall Goal: Restore and maintain the site hydrology as much as possible given the major topographic changes that have occurred.

Short-term objectives - 2021 - 2023

- LCDNR will complete monitoring activities for the Fichter's Creek Restoration Project.
- Develope a long-term monitoring protocol for the shoreline stabilization done at that park.

Long-term objectives - 2023 - 2031

- Implement long term monitoring protocol for the shoreline stabilization done at the park.

Hydrologic Preservation and Restoration Budgeting and Cost*:

Long term monitoring of the Fichter's Creek Project is handled by an outside department thus not effecting the budget of this specific park.

Maintenance (completed by Natural Resources Department) = $31,500/yr.

Long term monitoring of the shoreline stabilization is handled internally though the already existing budget, as day-to-day activities of the parks staff.

*A further breakdown of the cost per activity per year can be found in Table 13.

iv. Exotic and Invasive Species: Maintenance and Control

The three species of invasive, exotic flora that constitute the largest biomass and coverage at CRP are Guineagrass, Brazilian pepper and cogongrass. Land stewardship endeavors at CRP have resulted in minimal control of Guineagrass. In an effort maximize the efficiency of chemicals, time and monies used to control Guineagrass, LCPR staff, in partnership with the University of Florida's Institute of Food and Agricultural Sciences (UF/ IFAS), have conducted

an experiment to test the efficacy of selected herbicides. The study found that impazapyr treatments are not effective in clay soils (Appendix H).

Small infestations of exotic species will be controlled on an on-going basis throughout the park. The heavy infestation of Brazilian pepper persists on the approximately 160 eastern acres (Units 7 & 8) of the north side currently precludes the use of prescribed fire as a management tool. However, LCPR staff will systematically treat the gynoecious (female) individuals of this dioecious plant to (1) reduce the overall extent of Brazilian pepper on these units and (2) reduce the on-site seed source. Ewel et al. (1982) estimated the ratio of female individuals in successional ecosystems of Everglades National Park at 50%. Stevens and Beckage (2010) confirmed this ratio (51%) in Florida Pine Savannas. While the north side of CRP may not conform to the plant communities studied by these authors, a 50% ratio (or thereabouts) of female Brazilian pepper trees on the north side of CRP is likely. Once the occurrence of live Brazilian pepper is cut to approximately 50%, prescribed fire may be used to control this invasive, exotic shrub. Stevens and Beckage (2010) discovered that even though the individuals that survived fire exhibited rapid growth rates (by resprouting) they also exhibited lower fecundity rates.

Currently, the south side of CRP consists of a mix of grasses and woody species; cogan grass, guinea grass, Brazilian pepper. The coverage of these species range for 0-24% of the management units they are found within; Units A, G, and I. the remaining management units on the south side have a 25-49% coverage of grasses and woody species; Units B, C, D, E, F, and H (figure 26). While all FLEPPC Category I and Category II plants will be targeted for control,of major concern are Brazilian pepper and cogan grass.

Four, exotic vertebrate species have been documented within CRP (Table 4). While all of these animals have some degree of impact on the native plants and animals at the park, the feral hog is of primary concern. Lee County currently funds a hog trapper to remove feral hogs from county parks and preserves including CRP. Currently, this is the only method of control for this invasive, exotic species. LCPR staff will consult with experts within the FWC in the development of specific methodologies to target and eradicate invasive, non-native species while ensuring the protection of native wildlife.

Overall Goal: Control all invasive plants and animals to at least a maintenance level.

Short-term objectives - 2021 - 2031

- Survey and map exotic, invasive plants by stewardship unit.
- Continue treatment of exotic, invasive plants (~350 acres)

Long-term objectives - –2023-2031

- Continue to use prescribed fire on a two-to-six-year fire return interval on fire-adapted communities. This will include Units 7 and 8 when feasible.
- Continue treatment of exotic species as needed.

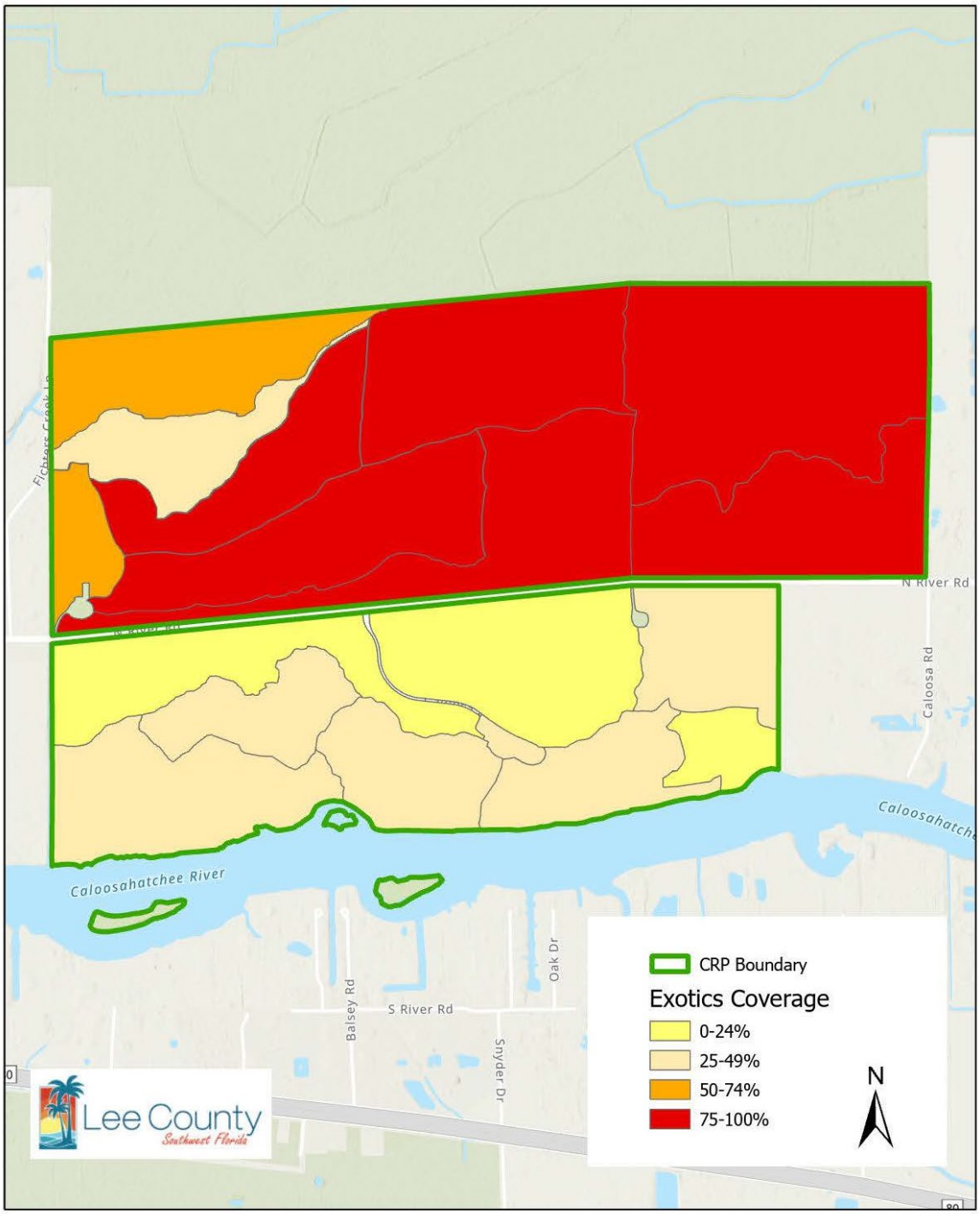

Figure 26: CRP exotic coverage per management unit

Exotic and Invasive Species Budgeting and Cost*:

Exotics	Low= $ 100 / acre	Medium= $ 500 / acre	High/Initial= $1300 / acre
Annual			Initial Cost=SUM("High/Initial") ← Out of rotation

Cost=SUM("LOW"&"Medium")/*TreatmentRotation#*			
Feral Hog Trapping	$ 35 / Hog > 60 LBS	*Estimated that 50% of all catches are > 60 LBS*	
	Low Infest= 10 Hogs / FY	Medium Infest= 50 Hogs / FY	High Infest= 100 Hogs / FY

*A further breakdown of the cost per activity per year can be found in Table 13.

v. Capital Facilities and Infrastructure

The design, planning and construction of capital infrastructure projects at CRP were completed, but additional requests and discussions between user groups and department administration have expansion of park infrastruction improvements and facilities under consideration. There continues to be retrofitting of public access trail systems, primarily on the north side of the park. Short-term and long-term goals for the maintenance and alteration public access trails is described in the Public Access and Passive, Recreational Opportunities section of this document.

Captial Facilities and Infrasturcture Budgeting and Costs*:

Public Use	Annual Cost=SUM(*MowingEst.*)+(*TrailMaint.*)+(*BoundarySignReplacement/FY*) Projected Cost=SUM(*Construction&Planning*)+(*ID/InterpSigns*)+(*NewAmenities*)…
Fence	New= $ 14 / linear foot
Camping	Annual Cost=SUM(MowingEst)+(Maint.)

*A further breakdown of the cost per activity per year can be found in Table 13.

vi. Imperiled Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration

Lee County's approach to resource management may be described as "natural systems management." This approach aims at managing the natural communities of each unit as parts of an interrelated system, rather than managing for the benefit of individual species. The general composition of each community, as it may have appeared at the beginning of Florida's historical period, is determined by considering factors such as climate, geology, soil, hydrology, and fire frequency. Measures are then implemented to recreate, to the extent possible, the natural processes and conditions that prevailed at that time, with the goal of restoring each community to its "original" condition. Portions of the biological communities within the park were harshly impacted in the recent past. These natural systems will require both time and effort for restoration to succeed. However, burning fire-adapted communities, controlling exotic species, preventing erosion due to human activities, restoring surface water regimes, and other such

measures will assist in their eventual recovery to a level closer to original natural conditions than presently occur.

To date, 10 listed plant species (Table 5) and 13 listed wildlife species (Table 6; species profiles provided in Appendix E) occur within the boundaries of CRP. As stewardship activities progress within CRP, the habitats of these imperiled species will continue to become more suitable to supporting their populations and therefore will help to ensure their long-term survival. As funds to conduct stewardship activities are limited, LCPR staff will apply for grants and encourage professionals and students alike to helping staff maintain comprehensive lists of the flora and fauna of the park.

Overall Goal: Conduct stewardship activities conducive to the long-term survival of imperiled species within CRP.

Short-term objectives - 2021-2023

- Maintain comprehensive lists of the flora and fauna of the park.

Long-term objectives - 2023-2031

- In cooperation with FWC, develop a Wildlife Management Strategy that addresses all appropriate fish and wildlife species, including appropriate imperiled species, their habitats, and their sustainability based on site-specific population data. In conjunction with this strategy, develop and institute a monitoring program as funding and staffing allows.

Imperiled Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration Budgeting and Costs*:

The maintenance of imperiled species habitat is wrapped into the exotic maintenance and everyday park maintenance. Please refer to the expenses section for exotic and invasive species. All other enhancement and restoration is incorporated into day-to-day activities of Park staff and other maintenance projects.

*A further breakdown of the cost per activity per year can be found in Table 13.

VII. PROJECTED TIMETABLE FOR IMPLEMENTATION

Table 12 depicts the planning and progression of stewardship activities for the next ten years. The primary constraints to the stewardship and restoration of CRP are funding and staffing as discussed in the next section of this document.

Table 12: Projected Timetable for Implementation

Fiscal Year (Oct. – Sept)/ Stewardship Activity*	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030
(Re)treat invasive, exotic plants within CRP to prevent reinfestation.	x	x	x	x	x	x	x	x	x	x

Prescribed Fire^ (Figure 25)	Units A, B	Unit C	Northern Units^^	Units A, B	Unit C	Units 1; Northern Units^^	Units A, B	Unit C	Units 1; Northern Units^^	Units A, B
Feral and exotic animal control	x	x	x	x	x	x	x	x	x	x
Shoreline Stabilization Project	x	x								

*** All activities will be based on the amount of staff and funding available; ^ Fires will be conducted according to appropriate staff, funding, site and weather conditions. Additional units will be burned if appropriate and feasible; ^^Additional Northern Units will be addressed as feasible.**

VIII. FINANCIAL CONSIDERATIONS

Table 13 breaks down the costs of stewardship and operations functions at CRP as outlined by 239.037 (3)(a) F. S.

A. Funding

The county's General Fund is subsidized by ad valorem property taxes in Lee County, Florida. This fund is utilized throughout the County and LCPR receives a portion of these monies. Stewardship and operation activities at CRP are funded primarily through this General Fund. Grant funding will be sought to accomplish stewardship and operation goals and objectives for CRP as institutional funding declines.

B. Staffing

Site supervisor, natural areas coordinator, maintenance specialists, and program specialistIt is recommended that *at least* one member of the CRP staff attend basic fire training courses (S-130, S-190, L-180) offered through the FFS to enable them to serve on the burn crew. If funds are available, this person should then successfully complete FFS's Interagency Prescribed Fire Basic Training course so that this member of the staff can eventually become a Certified Burn Manager as defined in FAC 5-I2.

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Table 13: Annual and Ten-Year Cost Estimates for CRP (Oct. 2020 - Sept. 2030).
Assumptions for cost estimates presented on next page.

Activity/ Fiscal Year	2020/ 2021	2021/ 2022	2022/ 2033	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	Ten-Year Totals
Resource Management											
Exotic Plant Control	$N/A	$125,791	$250,000	$127,678	$129,593	$65,000	$65,975	$66,965	$67,969	$68,988	$967,959
Exotic Animal Control (Feral Hogs)	$126	$323	$328	$333	$338	$343	$348	$353	$358	$363	$3,213
Prescribed Burning	$0	$0	$898	$1,822	$924	$938	$1,904	$966	$980	$1,988	$10,511
Cultural Resource Management	$100	$36	$36	$36	$36	$100	$36	$36	$36	$36	$488
Mowing Units on North Side	$8,400	$12,888	$13,081	$13,277	$13,476	$13,678	$13,883	$14,091	$14,302	$14,517	$134,593
Shoreline Stabilization	$172,541	$1,077,538	$0	$0	$0	$0	$0	$0	$0	$0	$1,250,079
Annual Subtotals	***$181,167***	***$1,216,576***	***$264,343***	***$143,146***	***$144,367***	***$80,059***	***$82,146***	***$82,411***	***$83,645***	***$85,892***	***$2,366,843***
Administration											
General Administration	$51,877	$61,130	$62,047	$62,978	$63,923	$64,882	$65,855	$66,843	$67,846	$68,864	$636,245
Personnel Costs	$171,866	$178,061	$180,732	$183,443	$186,195	$188,988	$191,823	$194,700	$197,620	$200,584	$1,874,012
Annual Subtotals	***$223,743***	***$239,191***	***$242,779***	***$246,421***	***$250,118***	***$253,870***	***$257,678***	***$261,543***	***$265,466***	***$223,743***	***$2,510,257***
Support											
Land Management Planning	$2,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,500	$8,600	$19,100
Land Management Reviews	$476	$200	$0	$0	$0	$0	$0	$0	$0	$476	$1,152
Training/ Staff Development/ Travel	$80	$300	$305	$205	$309	$209	$313	$213	$317	$217	$2,468
Vehicle Purchase	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Vehicle Operation and Maintenance	$43,774	$24,294	$44,431	$45,097	$45,773	$46,460	$47,157	$47,864	$48,582	$49,311	$442,743
Bulk Fuel	$6,631	$4,400	$4,466	$4,533	$4,601	$4,670	$4,740	$4,811	$4,883	$4,956	$48,691
Annual Subtotals	***$52,961***	***$30,194***	***$50,202***	***$50,835***	***$51,683***	***$52,339***	***$53,210***	***$53,888***	***$55,282***	***$63,560***	***$514,154***
Capital Improvements											
New Facility Construction	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Facility Maintenance	$18,606	$27,787	$18,885	$19,168	$19,455	$19,747	$20,043	$20,344	$20,649	$20,959	$205,643
Annual Subtotals	***$18,606***	***$27,787***	***$18,885***	***$19,168***	***$19,455***	***$19,747***	***$20,043***	***$20,344***	***$20,649***	***$20,959***	***$205,643***
Visitor Services/Recreation											
Information/ Operations	$3,320	$3,370	$3,421	$3,472	$3,524	$3,577	$3,631	$3,685	$3,740	$3,796	$35,536
Staff Led Programs	$1,386	$1,407	$1,428	$1,449	$1,471	$1,493	$1,515	$1,538	$1,561	$1,584	$14,832
Campground Maintenance	$8,860	$8,993	$9,128	$9,265	$9,404	$9,545	$9,688	$9,833	$9,980	$10,130	$94,826
Annual Subtotals	***$13,566***	***$13,770***	***$13,977***	***$14,186***	***$14,399***	***$14,615***	***$14,834***	***$15,056***	***$15,281***	***$15,510***	***$145,194***

(Table continued on next page)

Table 13 (continued): Annual and Ten-Year Cost Estimates for CRP (Oct. 2020 – Sept. 2030).

Activity/ Fiscal Year	2020/ 2021	2021/ 2022	2022/ 2023	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028	2028/ 2029	2029/ 2030	Ten-Year Totals
Law Enforcement											
Resource protection	$7,042	$7,148	$7,255	$7,364	$7,474	$7,586	$7,700	$7,816	$7,933	$8,052	$75,370
Visitor Services	$3,018	$3,063	$3,109	$3,156	$3,203	$3,251	$3,300	$3,350	$3,400	$3,451	$32,301
Annual Subtotals	***$10,060***	***$10,211***	***$10,364***	***$10,520***	***$10,677***	***$10,837***	***$11,000***	***$11,166***	***$11,333***	***$11,503***	***$107,671***
ANNUAL TOTALS	**2020/ 2021** $500,103	**2021/ 2022** $1,537,729	**2022/ 2023** $600,550	**2023/ 2024** $484,276	**2024/ 2025** $490,699	**2025/ 2026** $431,467	**2026/ 2027** $438,911	**2027/ 2028** $444,408	**2028/ 2029** $451,656	**2029/ 2030** $421,167	
PROJECTED TEN-YEAR COST ESTIMATE (Oct. 2020 – Sept. 2030):											**$5,849,762**

Activity	Cost Estimates Based on the Following Assumptions
Resource Management	
Exotic Plant Control	includes costs of herbicides and anticipated costs for contracted services, estimates based initial treatments of most effected then maintenance.
Exotic Animal Control (Feral Hogs)	Price based on contracted services, portion of contract dedicated to CRP - increased by 1.5% per year, cost dependent on number of hogs caught each year.
Prescribed Burning	based on equipment needed for site preparation, conducting fire and post-burn monitoring for each unit. Costs may be lower if more than one unit is burned at a time. Est. $872/MU in 2020, increase 1.5% per year
Cultural Resource Management	personnel costs
Mowing Units on North Side	price based on contracted services, completed by in house staff - increased by 1.5% per year
Shoreline Stabilization	Cost to finish construction and permitting of Phase 2 and 3
Administration	
General Administration	Includes the cost of all administrative services; cell phones, federal dept visits, IT, office supplies, etc.
Personnel Costs	includes all taxes and benefits - increased by 1.5% each subsequent year
Support	
Land Management Planning	based on personnel costs
Land Management Reviews	based on advertising costs of publishing press release for public meetings and visit by Land Management Review Team
Training/ Staff Development/ Travel	based on costs of license renewal, memberships, travel, etc.
Vehicle Purchase	No new vehicles are budgeted for purchase
Vehicle Operation and Maintenance	based on costs incurred in 2020/2021 - increased by 1.5% per year
Bulk Fuel	based on costs incurred in 2020/2021 - increased by 1.5% per year
Capital Improvements	
New Facility Construction	No new facility construction is planned for the next 10 years
Facility Maintenance	based on costs incurred in 2020/2021 - increased by 1.5% per year
Visitor Services/Recreation	
Information/ Operations	increased by 1.5% per year – based on previous cost estimates
Staff Led Programs	increased by 1.5% per year – based on previous cost estimates
Campground Maintenance	increased by 1.5% per year – based on previous cost estimates
Law Enforcement	
Resource protection	based on personnel costs for law enforcement - dependent on need of services - increased by 1.5% per year – based on previous cost estimates
Visitor Services	based on personnel costs for law enforcement - dependent on need of services - increased by 1.5% per year – based on previous cost estimates

IX. ANALYSIS OF POTENTIAL FOR CONTRACTING PRIVATE VENDORS FOR RESTORATION AND MANAGEMENT ACTIVITIES

Per 253.034(5) and 259.032(10), F.S. and TIITF/ Acquisition and Restoration Council rule requirements, Table 14 delineates management and restoration activities have been considered for outsourcing to private vendors. It has been determined that items selected as "Approved" below are those that Lee County either does not have in-house expertise to accomplish or which can be done at a lesser cost by an outside provider of services. "Conditional" items are those that could be done either by an outside provider or by Lee County at virtually the same cost and with the same level of competence. Those items selected as "Rejected" represent those for which Lee County has in-house expertise and/or which the agency has found it can accomplish at lesser expense than through contracting with outside sources.

Table 14: Analysis for Contracting Private Vendors for Restoration & Management Activities

Stewardship Activity	Approved	Conditional	Rejected
(Re)treat invasive, exotic plants within CRP to prevent reinfestation.		x	
Prescribed Fire		x	
Feral and exotic animal control	x		
Fichter's Creek Restoration Project	x		
Shoreline Stabilization Project	x		

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XI. APPENDICES

APPENDIX A: Lease agreement between the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida and Lee County.

LEE CO. CONTRACT NO. C890102

OAL8102

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

(1) 3698

LEASE AGREEMENT

Lease No. 3698

THIS LEASE AGREEMENT, made and entered into this 14th day of June 1989, by and between the BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA hereinafter referred to as "LESSOR," and LEE COUNTY, hereinafter referred to as "LESSEE."

LESSOR, for and in consideration of mutual covenants and agreements hereinafter contained, does hereby lease to said LESSEE, the lands described in Paragraph 2 below, together with the improvements thereon, and subject to the following terms and conditions:

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

2. DESCRIPTION OF PREMISES: The property subject to this lease, is situated in the County of Lee, State of Florida and is more particularly described in Exhibit A attached hereto and hereinafter called the "leased premises".

3. TERM: The term of this lease shall be for a period of 50 years commencing on May 11, 1989 and ending on May 10, 2039, unless sooner terminated pursuant to the provisions of this lease.

4. PURPOSE: LESSEE shall only manage the leased premises for the conservation and protection of natural and historical resources and for resource based public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 253.023(11), Florida Statutes, along with other related uses necessary for the accomplishment of this purpose as designated in the Management Plan required by paragraph (8) of this lease.

5. QUIET ENJOYMENT AND RIGHT OF USE: LESSEE shall have the right of ingress and egress to, from and upon the leased premises for all purposes necessary to the full quiet enjoyment by said LESSEE of the rights conveyed herein.

6. UNAUTHORIZED USE: LESSEE shall, through its agents and employees prevent the unauthorized use of the leased premises or any use thereof not in conformity with this lease.

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

8. MANAGEMENT PLAN: LESSEE shall prepare and submit a Management Plan for the leased premises in accordance with Chapters 18-2 and 18-4, Florida Administrative Code, within 12 months of the effective date of this lease. The Management Plan shall be submitted to LESSOR for approval through the Division of State Lands. The leased premises shall not be developed or physically altered in any way other than what is necessary for security and maintenance of the leased premises until the Management Plan is approved, without the prior written approval of LESSOR. LESSEE shall provide LESSOR with an opportunity to participate in all phases of preparing and developing the Management Plan for the leased premises. The Management Plan shall be submitted to LESSOR in draft form for review and comments within ten months of the effective date of this lease. LESSEE shall give LESSOR reasonable notice of the application for and receipt of any state, federal or local permits as well as any public hearings or meetings relating to the development or use of the leased premises. LESSEE shall not proceed with development of said leased premises including, but not limited to, funding, permit applications, design or building contracts until the Management Plan required herein has been submitted and approved. Any financial commitments made by LESSEE which are not in compliance with the terms of this lease shall be done at LESSEE'S own risk. The Management Plan shall emphasize the original

management concept as approved by LESSOR at the time of acquisition which established the primary public purpose for which the leased premises were acquired. The approved Management Plan shall provide the basic guidance for all management activities and shall be reviewed jointly by LESSEE and LESSOR at least every five (5) years. LESSEE shall not use or alter the leased premises except as provided for in the approved Management Plan without the prior written approval of LESSOR. The Management Plan prepared under this lease shall identify management strategies for exotic species, if present. The introduction of exotic species is prohibited, except when specifically authorized by the approved Management Plan.

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

10. SUBLEASES: This lease is for the purposes specified herein and subleases of any nature are prohibited, without the prior written approval of LESSOR. Any sublease not approved in writing by LESSOR shall be void and without legal effect.

11. RIGHT OF INSPECTION: LESSOR or its duly authorized agents, representatives or employees shall have the right at any and all times to inspect the leased premises and the works and operations of LESSEE in any matter pertaining to this lease.

12. PLACEMENT AND REMOVAL OF IMPROVEMENTS: All buildings, structures, improvements, and signs shall be constructed at the expense of LESSEE in accordance with plans prepared by professional designers and shall require the prior written approval of LESSOR as to purpose, location and design. Further, no trees, other than non-native species shall be removed or major land alterations done without the prior written approval of LESSOR. Removable equipment and removable improvements placed on the leased premises by LESSEE which do not become a permanent part of the realty will remain the property of LESSEE and may be removed by LESSEE upon termination of this lease.

13. INSURANCE REQUIREMENTS: During the term of this lease LESSEE shall procure and maintain policies of fire, extended risk, and liability insurance coverage. The extended risk and fire insurance coverage shall be in an amount equal to the full insurable replacement value of any improvements or fixtures located on the leased premises. The liability insurance coverage shall be in amounts not less than $100,000.00 per occurrence and $200,000.00 per accident for personal injury, death, and property damage on the leased premises. Such policies of insurance shall name LESSOR, the State of Florida and LESSEE as co-insureds. LESSEE shall submit written evidence of having procured all insurance policies required herein prior to the effective date of this lease and shall submit annually thereafter, written evidence of maintaining such insurance to the Bureau of Uplands Management, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399. LESSEE shall purchase all policies of insurance from a financially-responsible insurer duly authorized to do business in the State of Florida. Any certificate of self-insurance shall be issued or approved by the Insurance Commissioner, State of Florida. The certificate of self-insurance shall provide for casualty and liability coverage. LESSEE shall immediately notify LESSOR and the insurance agent of any erection or removal of any building or other improvement on the leased premises and any changes affecting the value of any improvements and shall request the insurance agent to make adequate changes in the coverage to reflect the changes in value. LESSEE shall be financially responsible for any loss due to failure to obtain adequate insurance coverage, and failure to maintain such policies or certificate in the amounts set forth shall constitute a breach of this lease.

14. INDEMNITY: LESSEE hereby covenants and agrees to investigate all claims of every nature at its own expense, and to indemnify, protect, defend, hold and save harmless the State of Florida and LESSOR from any and all claims, actions, lawsuits and demands of any kind or nature arising out of this lease to the

extent provided by law.

15. PAYMENT OF TAXES AND ASSESSMENTS: LESSEE shall assume full responsibility for and shall pay all liabilities that accrue to the leased premises or to the improvements thereon, including any and all ad valorem taxes and drainage and special assessments or taxes of every kind and all mechanic's or materialman's liens which may be hereafter lawfully assessed and levied against the leased premises.

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

17. TIME: Time is expressly declared to be of the essence of this lease.

18. NON DISCRIMINATION: LESSEE shall not discriminate against any individual because of that individual's race, color, religion, sex, national origin, age, handicap, or marital status with respect to any activity occurring within the leased premises or upon lands adjacent to and used as an adjunct of the leased premises.

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

20. MINERAL RIGHTS: This lease does not cover petroleum or petroleum products or minerals and does not give the right to LESSEE to drill for or develop the same.

21. RIGHT OF AUDIT: LESSEE shall make available to LESSOR all financial and other records relating to this lease, and LESSOR shall have the right to audit such records at any

reasonable time during the term of this lease. This right shall be continuous until this lease expires or is terminated. This lease may be terminated by LESSOR should LESSEE fail to allow public access to all documents, papers, letters or other materials made or received in conjunction with this lease, pursuant to the provisions of Chapter 119, Florida Statutes.

22. CONDITION OF PREMISES: LESSOR assumes no liability or obligation to LESSEE with reference to the conditions of the leased premises. The leased premises herein are leased by LESSOR to LESSEE in an "as is" condition, with LESSOR assuming no responsibility for the care, repair, maintenance or improvement of the leased premises for the benefit of LESSEE.

23. COMPLIANCE WITH LAWS: LESSEE agrees that this lease is contingent upon and subject to LESSEE obtaining all applicable permits and complying with all applicable permits, regulations, ordinances, rules, and laws of the State of Florida or the United States or of any political subdivision or agency of either.

24. NOTICE: All notices given under this lease shall be in writing and shall be served by certified mail including, but not limited to, notice of any violation served pursuant to 253.04, Florida Statutes, to the last address of the party to whom notice is to be given, as designated by such party in writing. LESSOR and LESSEE hereby designate their address as follows:

LESSOR: Department of Natural Resources
Division of State Lands
Bureau of Uplands Management
3900 Commonwealth Boulevard
Tallahassee, Florida 32399

LESSEE: Board of County Commissioners of Lee County
Post Office Box 398
Fort Myers, Florida 33902-0398

25. BREACH OF COVENANTS, TERMS, OR CONDITIONS: Should LESSEE breach any of the covenants, terms, or conditions of this lease, LESSOR shall give written notice to LESSEE to remedy such breach within sixty (60) days of such notice. In the event LESSEE fails to remedy the breach to the satisfaction of LESSOR within sixty (60) days of receipt of written notice, LESSOR may either terminate this lease and recover from LESSEE all damages

LESSOR may incur by reason of the breach including, but not limited to, the cost of recovering the leased premises and attorneys' fees or maintain this lease in full force and effect and exercise all rights and remedies herein conferred upon LESSOR.

26. DAMAGE: LESSEE agrees that it will not do, or suffer to be done, in, on or upon the leased premises or as affecting said leased premises, any act which may result in damage or depreciation of value to the leased premises, or any part thereof.

27. SURRENDER OF PREMISES: Upon termination or expiration of this lease, LESSEE shall surrender the leased premises to LESSOR. In the event no further use of the leased premises or any part thereof is needed, LESSEE shall give written notification to the Bureau of Uplands Management, Division of State Lands, Department of Natural Resources, 3900 Commonwealth Boulevard, Tallahassee, Florida 32399 at least six (6) months prior to the release of any or all of the leased premises. Notification shall include a legal description, this lease number, and an explanation of the release. The release shall only be valid if approved by LESSOR through the execution of a release of lease instrument with the same formality as this lease. Upon release of all or any part of the leased premises or upon termination or expiration of this lease, all improvements, including both physical structures and modifications to the leased premises, shall become the property of LESSOR, unless LESSOR gives written notice to LESSEE to remove any or all such improvements at the expense of LESSEE. The decision to retain any improvements upon termination of this lease shall be at LESSOR'S sole discretion. Prior to surrender of all or any part of the leased premises a representative of the Division of State Lands shall perform an on-site inspection and the keys to any building on the leased premises shall be turned over to the Division. If the improvements do not meet all conditions as set forth in paragraphs 19 and 35 herein, LESSEE shall, at its expense, pay

all costs necessary to meet the prescribed conditions.

28. BEST MANAGEMENT PRACTICES: LESSEE shall implement applicable Best Management Practices for all activities conducted under this lease in compliance with paragraph 18-2.004(1)(d), Florida Administrative Code, which have been selected, developed, or approved by LESSOR or other land managing agencies for the protection and enhancement of the leased premises.

29. PROHIBITIONS AGAINST LIENS OR OTHER ENCUMBRANCES: Fee title to the leased premises is held by LESSOR. LESSEE shall not do or permit anything to be done which purports to create a lien or encumbrance of any nature against the real property contained in the leased premises including, but not limited to, mortgages or construction liens against the leased premises or against any interest of LESSOR therein.

30. PARTIAL INVALIDITY: If any term, covenant, condition or provision of this lease shall be ruled by a court of competent jurisdiction, to be invalid, void, or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

31. ARCHAEOLOGICAL AND HISTORIC SITES: Execution of this lease in no way affects any of the parties' obligations pursuant to Chapter 267, Florida Statutes. The collection of artifacts or the disturbance of archaeological and historic sites on state-owned lands is prohibited unless prior authorization has been obtained from the Department of State, Division of Historical Resources. The Management Plan prepared pursuant to Chapters 18-2 and 18-4, Florida Administrative Code, shall be reviewed by the Division of Historical Resources to insure that adequate measures have been planned to locate, identify, protect and preserve the archaeological and historic sites and properties on the leased premises.

32. SOVEREIGNTY SUBMERGED LANDS: This lease does not authorize the use of any lands located waterward of the mean or ordinary high water line of any lake, river, stream, creek, bay, estuary, or other water body or the waters or the air space

thereabove.

33. DUPLICATE ORIGINALS: This lease is executed in duplicate originals each of which shall be considered an original for all purposes.

34. ENTIRE UNDERSTANDING: This lease sets forth the entire understanding between the parties and shall only be amended with the prior written approval of LESSOR.

35. MAINTENANCE OF IMPROVEMENTS: LESSEE shall maintain the real property contained within the leased premises and the improvements located thereon, in a state of good condition, working order and repair including, but not limited to, keeping the leased premises free of trash or litter, meeting all building and safety codes in the location situated, maintaining the planned improvements as set forth in the approved Management Plan and maintaining any and all existing roads, canals, ditches, culverts, risers and the like in as good conditions as the same may be at the date of this lease; provided, however, that any removal, closure, etc, of the above improvements shall be acceptable when the proposed activity is consistent with the goals of conservation, protection and enhancement of the natural and historical resources within the leased premises and with the approved Management Plan.

36. ASSENT TO LEASE AGREEMENT TERMS AND CONDITIONS: LESSEE joins in this lease for the purpose of indicating its assent to all terms and conditions hereof and agrees to be bound hereby.

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

38. SIGNS: LESSEE shall ensure that the area is identified as being publicly owned and operated as a public outdoor recreational facility in all signs, literature and advertising and shall erect signs identifying the leased premises as being open to the public. If federal grants or funds are used by LESSEE for any project on the leased premises LESSEE shall erect signs identifying the leased premises as a federally assisted project.

39. SECTION CAPTIONS: Articles, subsections and other captions contained in this lease are for reference purposes only and are in no way intended to describe, interpret, define or limit the scope, extent or intent of this lease or any provisions thereof.

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

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

Virginia A. Curry
Witness

Bonnie Poter
Witness

By: _____ (SEAL)
DIRECTOR, DIVISION OF STATE LANDS, DEPARTMENT OF NATURAL RESOURCES

"LESSOR"

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 28th day of June, 1989, by Percy W. Mallison, Jr., as Director, Division of State Lands, Department of Natural Resources.

Teresa P. Cook (SEAL)
NOTARY PUBLIC

Notary Public, State of Florida
My Commission Expires July 14, 1992
Bonded Thru Troy Fain - Insurance Inc.

My Commission Expires:

Approved as to Form and Legality

By: Patricia E. Davenport
DNR Attorney

APPROVED AS TO FORM

James R. Adams
OFFICE OF COUNTY ATTORNEY

BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA

Janet S. Foster
Witness

Mary Armentrout
Witness

By: _____ (SEAL)
Its: CHAIRMAN

"LESSEE"

STATE OF FLORIDA
COUNTY OF

The foregoing instrument was acknowledged before me this 16 day of June, 1989, by Charles L. Bigelow, Jr., as Chairman, Lee County Board of County Commissioners

Adrienne Elliott (SEAL)
NOTARY PUBLIC

Notary Public, State of Florida
My Commission Expires May 26, 1990
Bonded Thru Troy Fain - Insurance Inc.

My Commission Expires:

The following described land, situate, lying and being in the County of Lee, State of Florida, to-wit:

IN SECTIONS 18 AND 19, TOWNSHIP 43 SOUTH, RANGE 27 EAST:

The westerly 1595.00 feet (as measured on a perpendicular with the westerly line thereof), of the S 1/2 of said Section 18; ALSO: the westerly 1595.00 feet (as measured on a perpendicular with the westerly line thereof), of said Section 19, lying North of the northwesterly right-of-way of the Central and Southern Florida Flood Control District right-of-way for the Caloosahatchee River Canal.

EXCEPTING THEREFROM: The existing right-of-way of State Road No. 78 lying over and across the line between said Sections 18 and 19.

SUBJECT TO: A dredging pipeline easement lying over and across the westerly 100 feet of said Section 19 and other existing rights-of-way and easements of record.

CONTAINING 167 acres, more or less.

A parcel of land lying in Sections 18 and 19, Township 43 South, Range 27 East, Lee County, Florida, which parcel is more particularly described as follows:

The Easterly 1595.00 feet of the westerly 3190 feet, (as measured on a perpendicular with the westerly line thereof), of the s 1/2 of said Section 18: ALSO: The Easterly 1595.00 feet of the westerly 3190 feet (as measured on a perpendicular with the westerly line thereof), of said Section 19 lying North of the northerly right-of-way of the Central and Southern Florida Flood Control District right-of-way for the Caloosahatchee River Canal.

EXCEPTING THEREFROM: The existing right-of-way of State Road No. 78 lying over and across the line between said Sections 18 and 19.

SUBJECT TO: A 40 feet wide dredging pipeline easement, running in a generally North - South direction, lying near the easterly line of the hereinabove described fractional portion of the aforesaid Section 19, and other existing rights-of-way and easements of record.

CONTAINING 167 Acres, more or less.

EXHIBIT "A"
PAGE 11 OF 13
LEASE NO. 3698

The following described land, situate, lying and being in the County of Lee, State of Florida, to-wit:

A parcel of land lying in the South Half (S 1/2) of Section 17, Township 43 South, Range 27 East, and being more particularly described as follows:

Beginning at the Southwest corner of said Section 17 and a point on the centerline of State Road No. 78, run North 00 degrees 12 minutes 47 seconds East along the West Line of said Section 17 for 2660.40 feet to the West Quarter (W 1/4) corner of said Section 17; thence run South 89 degrees 45 minutes 00 seconds East along the North line of the Southwest Quarter (SW 1/4) of said Section 17 for 2673 feet more or less to the center of said Section 17; thence run South 00 degrees 12 minutes 47 seconds West parallel with the West line of said Section 17 for 2670 feet more or less to an intersection with the South line of said Section 17 and a point on said centerline of State Road No. 78; thence run North 89 degrees 32 minutes 53 seconds West along the South line of said Section 17 and the centerline of said State Road No. 78 for 2673.37 feet to the point of beginning.

EXCEPTING THEREFROM: The existing right of way of State Road No. 78 lying over and across the southerly portion of the hereinabove described parcel and other existing rights of way and easements of record.

Containing 163 acres, more or less.

TOGETHER WITH

A parcel of land lying in the Northwest Quarter (NW 1/4) of Section 20, Township 43 South, Range 27 East, and being more particularly described as follows:

Beginning at the Northwest corner of said Section 20 and a point on the centerline at State Road No. 78, run South 89 degrees 32 minutes 53 seconds East along the North line of said Section 20 and said centerline of State Road No. 78 for 1336.34 feet to the Northeast corner of the West Half (W 1/2) of the Northwest Quarter (NW 1/4) of said Section 20; thence run South 00 degrees 06 minutes 13 seconds West along the East line of the West Half (w 1/2) of the Northwest Quarter (NW 1/4) of said Section 20 for 1640.36 feet to a point on the Northerly right of way line of the Caloosahatchee River; thence run South 77 degrees 16 minutes 46 seconds West along said Northerly right of way line for 1338.01 feet to a point on the West line of said Section 20; thence run North 00 degrees 19 minutes 18 seconds East along the West line of said Section 20 for 1963.62 feet to the point of beginning.

EXCEPTING THEREFROM: The existing right of way of State Road No. 78 lying over and across the Northerly portion of the hereinabove described parcel and other existing rights of way and easements or record.

Containing 55 acres, more or less.

The following described land, situate, lying and being in the County of Lee, State of Florida, to-wit:

A parcel of land lying in Sections 18 and 19, Township 43 South, Range 27 East, Lee County, Florida, which parcel is more particularly described as follows:

All that portion of the South 1/2 of said Section 18 lying East of the Westerly 3190 feet (as measured on a perpendicular with the Westerly line thereof), and all that portion of said Section 19 lying, East of the Westerly 3190 feet (as measured on a perpendicular with the Westerly line thereof) and lying North of the northerly right of way line of the Central and Southern Florida Flood Control District right of way for the Caloosahatchee River Canal.

EXCEPTING THEREFROM: The existing right of way of State Road No. 78 lying over and across the line between the said Sections 18 and 19.

ALSO EXCEPTING THEREFROM: The Southeast quarter of the Southeast quarter of Section 18, Township 43 South, Range 27 East.

SUBJECT TO: A 40 foot wide dredging pipeline easement, running in a generally North-South direction, lying near the westerly line of the hereinabove described fractional portion of the aforesaid Section 19, and other existing rights of way and easements of record.

Containing 166 acres, more or less.

EXHIBIT "A"
PAGE 13 OF 13
LEASE NO. 3698

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Caloosahatchee Regional Park
3410E-009
LEASE

This Lease (Lease) is made and entered into by and between the South Florida Water Management District (District), a government entity existing under Chapter 373, Florida Statutes, and Lee County, Florida (Lessee). The Executed Date of this Lease and address of the parties are provided below.

Key Terms

Lessee:	Lee County, Florida	**Lease Term**	1-Year with automatic 1-year renewals (See Paragraph 4 of the Key Terms and Conditions)
Effective Date:	Upon Execution 2/3/2021	**Expiration Date:**	Execution date with automatic 1-year renewals (See Paragraph 4 of the Key Terms and Conditions)
District Property Name	Caloosahatchee Regional Park	**Lease Purpose:**	Recreation
County	Lee	**Acres Leased:**	50.58 acres
Contract Number:	4600004190	**Encumbrance ID:**	3410E-009
Send Notices to the Lessee:	Director of Lee County Parks & Recreation 3410 Palm Beach Boulevard Fort Myers, FL 33916 Contact: Jesse Lavender, Director 239-533-7443 JLavender@leegov.com	**Send Notices to the District:**	Dawn West, MS 3731 Lease Specialist 561-682-~~6947~~ 6957 dwest@sfwmd.gov With copies to: Dan Cotter MS 3731 Land Manager 561-682-2301 dcotter@sfwmd.gov South Florida Water Management District 3301 Gun Club Road West Palm Beach, FL 33406

Background

A. The District owns certain real property located in Lee County, Florida near the Caloosahatchee Regional Park, known as tract 3410E-009.

B. The District presently desires to lease the Property under Section 373.056(4), Florida Statutes.

C. The District and Lee County (Lessee) wish to lease the Property for recreational purposes as a public recreational facility. In general, the public use is hiking, biking, horseback riding, camping, canoeing/kayaking, picnicking and special events.

Terms and Conditions

1. Key Terms and Background

The Key Terms identified on page 1 and Background are part of this Lease. This lease will automatically renew for additional 1-year periods unless either party gives the other not less than 180 days written notice of the electing parties' desire to terminate this lease.

2. Exhibits

The following Exhibits are attached to and made a part of this Lease:

A - Map of the Property
B - Insurance Requirements
C - Baseline Inspection Report
D - Dispersed Water Management Project Information

3. Leased Property

This Lease is for the property depicted in Exhibit "A" (the Property) located in Lee County, Florida.

4. Lease Term

The Lease Term is 1-year upon Execution date provided, however, that the Lease Term will automatically renew for 1-year periods of time unless either party elects to terminate this lease earlier. In such event, the electing party will give the non-electing party not less than 180 days written notice of such election.

5. Condition of the Property

5.1 "As Is"

The Property is leased in its "As Is, Where Is, and With All Faults" condition. Lessee has examined the Property to its complete and total satisfaction and accepts it in its present condition. Lessee has had an adequate opportunity to investigate the land use and zoning of the Property and is satisfied that it can use the Property for Lessee's purposes. The District makes no representations or warranties to Lessee about the title, condition or potential use of the Property.

5.2 Baseline Inspection

The District will conduct a Baseline Inspection within 90 days of the Executed Date of the Lease to establish the condition of the Property at the start of the Lease. Upon expiration or termination of this Lease, Lessee will return the property to the District in the same or better condition as described in the Baseline Inspection Report – sample attached as Exhibit "C".

6. Use of the Property

6.1 Permitted Activities

Lessee may only use the Property for public recreation and those incidental uses that are approved by the District's Land Manager in writing.

6.2 Prohibited Activities

(A) No Hunting

Lessee must not hunt, trap, fish or capture any wildlife upon the Property or allow others to do so unless: (1) the Property is established by the Florida Fish and Wildlife Conservation Commission as a public hunting area and hunting occurs in compliance with the laws and rules established for that area; (2) Lessee obtains prior written approval from the District's Land Manager; or (3) Lessee obtains a license from the District for hog removal.

(B) No Fire

Lessee shall not at any time set or cause to be set any fire on the Property without a prior written agreement signed by the District's Land Manager. The District may grant or refuse permission for a prescribed burn in its sole discretion.

(C) No Changes or Improvements

Lessee must not make any changes or improvements to the Property including but not limited to water management systems, fences, gates, trailers, or any other structures, without the prior written approval from the District's Land Manager. If approved by the District, any changes or improvements made by Lessee will be done at Lessee's sole cost and will become District

property. Any improvement or personal property that is left on the Property at the end of this Lease will become the property of the District.

6.3 Public Use

(A) Public Use Area

In addition to the activities authorized under Lease, the Property is currently managed for public recreational use. The Lessee shall recognize that the Property is public land and therefore, in accordance with District rules concerning public use of District lands found in Chapter 40E-7, F.A.C. may be open at any time for public use which may include, but is not limited to, hiking, hunting administered by the Florida Fish and Wildlife Conservation Commission, fishing, biking, horseback riding, camping, boating, air boating, and canoeing to and from the Property. Lessee must at all times be courteous to the general public and comply with all public use rules.

(B) Public Use Facilities

The Property contains or may contain at any time public amenities including, but not limited to, shell rock roads, parking areas, gates, trails, signage, camping facilities, and toilets. These public amenities may change during the term of this Lease. If public use facilities extend through the Property, Lessee shall take all reasonable measures not to harm public use amenities and trails in carrying out authorized Lease activities.

(C) Release of Liability

The District is not responsible for any loss of equipment, improvements or any other property of Lessee resulting from any public use.

6.4 Environmental Requirements

(A) Environmental Laws

Lessee shall operate and occupy the Property in compliance with all Environmental Laws. "Environmental Laws" means any applicable federal, state, or local laws, statutes, ordinances, rules, regulations, or other governmental restriction.

(B) Exotic Plant Management

The Lessee may perform exotic plant management on the Property upon approval from the District's Land Manager.

(C) Agricultural Chemicals

Lessee must not apply or allow application of agricultural chemicals including herbicides or pesticides on the Property without prior written approval from the District's Land Manager. If the District approves a request from Lessee, Lessee

must, at a minimum: (1) comply with all federal, state and local laws, best management practices, regulations and guidelines including those administered by FDACS; and (2) comply with any other conditions of the District's written approval.

(D) Fertilizer

Lessee must not apply or allow application of fertilizer or soil amendments on the Property. This includes biosolids, residuals, and septage.

(E) Pollutants

For purposes of this Lease, "Pollutant" shall mean any hazardous or toxic substance, material, or waste of any kind or contaminant, pollutant, petroleum, petroleum product, or petroleum by-product as defined or regulated by Environmental Laws. "Disposal" shall mean the release, storage, use, handling, discharge, or disposal of such Pollutants. The Lessee shall not cause or permit the Disposal of any Pollutants upon the Property or upon any adjacent lands. Lessee shall report any Disposal, whether caused by Lessee or any third party, to the appropriate regulatory agencies as required by law and to the District immediately upon Lessee acquiring knowledge of the Disposal. Lessee shall be solely responsible for the entire cost of cleanup of any Pollutants which are disposed of or are otherwise discovered on the Property or emanate from the Property to adjacent lands as a result of the use of the Property or surrounding lands by the Lessee. Subject to the limitations of Section 768.28, Florida Statutes, as to the parties, Lessee shall be solely responsible for all claims, loss, damage, cost, or liability which arises directly, indirectly, or proximately as a result an intentional or negligent disposal by Lessee of any Pollutants which affects the Property or emanates from the Property to adjacent lands during the Lease Term. This responsibility shall continue to be in full force and effect for any such Pollutants as are discovered after the date of termination or expiration of this Lease. While this paragraph establishes contractual liability for the Lessee regarding pollution of the Property, it does not alter or diminish any statutory or common law liability of the Lessee for such pollution. Nothing herein shall be construed as a waiver or Lessee's sovereign immunity pursuant to the Florida Constitution or Section 768.28, Florida Statutes or as consent to be sued by third parties.

(F) Radon Gas

Radon is a naturally occurring radioactive gas that, when it has accumulated in a building in sufficient quantities, may present health risks to persons who are exposed to it over time. Levels of radon that exceed federal and state guidelines have been found in buildings in Florida. Additional information regarding radon and radon testing may be obtained from your county public health unit. Lessee

assumes all liability that may result due to the presence of radon gas in any structure on the Property.

(G) Surface Water Management System

The Lessee must obtain prior written approval from the District's Land Manager and Lease Administrator for any proposed changes to the surface water management system. Once approved by both the District's Land Manager and Lease Administrator, then the District and Lessee shall jointly apply for a permit from the State of Florida Department of Environmental Protection authorizing the change.

(H) Notice and Remediation

Within 90 days of delivery of notice from the District to the Lessee ("Remediation Period") that Lessee has caused or allowed any violation of Environmental Laws or any provision of this Section, Lessee shall, at Lessee's sole cost and expense, perform all assessments, cleanup, remediation, monitoring, and curative actions ("Remediation") of any violation of Environmental Laws, or any provision of this Section, and remediation of all Pollutants disposed of or otherwise discovered on the Property or emanating from the Property to adjacent lands, and any other damage that has occurred as a result of use or occupation of the Property or surrounding lands by Lessee, its agents, licensees, invitees, subcontractors, or employees during the term of this Lease. In the event Remediation is necessary as required in the previous sentence, then Lessee shall furnish to the District within the Remediation Period written proof from the appropriate local, state, or federal agency with jurisdiction over the Remediation that the Remediation has been satisfactorily completed in full compliance with all Environmental Laws, and that no further liability exists with regard thereto. If the District has obtained an environmental audit, Lessee must provide written proof that the Remediation has been completed as prescribed in the audit.

6.5 Safety Requirements

Lessee shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to any person who is on or adjacent to the Property. Lessee shall erect and maintain reasonable safeguards for safety and protection, including posting of danger signs and other warnings against hazards as needed and shall immediately notify the District if it erects any safeguards or signs.

6.6 Additional Duties of Lessee

(A) No Liens

Lessee shall keep the Property free from any liens, including, but not limited to, construction liens arising out of any work performed, materials furnished, or

obligations incurred by the Lessee. Lessee agrees to clear any such lien(s) from the Property within fifteen (15) days of the date the lien(s) are recorded against the Property by transferring any lien(s) to other security pursuant to Section 713.24, F.S.

(B) Repairs

Lessee has a general duty to maintain and repair the Property and all associated facilities and improvements including but not limited to: roadways; surface water management systems including swales, ditches, canals, pumps and other structures and all internal and perimeter fencing and gates. Lessee shall, at Lessee's expense, maintain and preserve the Property and any and all improvements installed by the District and Lessee in good condition and repair, to the satisfaction of District, and make all necessary repairs to the Property. The District, in its sole discretion, will determine if and when any repairs are necessary. Lessee is responsible for all repairs and maintenance whether caused by acts of Lessee, its agents, employees, customers, guests, licensees, or by reason of governmental regulations, acts of God, casualties, or any other reason, and unless additional time is granted Lessee by the District, Lessee will have any required repairs or maintenance completed within thirty (30) days of Lessee's receipt of the District's notice to Lessee requiring that the repairs or maintenance be made by Lessee.

(C) District Access

i. The District retains unlimited rights of ingress, egress, and unlimited access to the Property at all times and Lessee shall ensure that the District's access is not restricted. The District will have no liability for the exercise of its right of access. So long as any District officer, agent, or assign is acting within the scope of District business in exercising this unlimited right of access, yet excluding any willful, wanton or grossly negligent act, Lessee will have no claim for damages of any character against the District or any officer, agent, or assign resulting from the District accessing the Property.

ii. The District may perform water quality monitoring (including equipment installation if needed) or land management activities on the Property including but not limited to prescribed burning on or nearby the Property, construction activities, storing spoil material, spraying of exotic invasive vegetation and periodic land inspections.

(D) Government Approvals and Permits

Lessee shall obtain and maintain all government approvals and permits needed to undertake its operations on the Property including but not limited to permits

for installation of water wells, water use, installation of fences, and wetland impacts and shall provide copies of all permits to the District within five (5) days of obtaining each approval or permit.

(E) Dispersed Water Storage

The Lessee will be required to optimize water storage under the District's Dispersed Water Management Program (See Exhibit "D"). The District may at its sole and absolute discretion adjust the Lease appropriately based on the resulting permanent conditions. The Lessee will not be entitled to any compensation for Dispersed Water Storage.

(F) Cultural Resources

i. If applicable, the District will notify Lessee of any known historic, archeological and cultural resources within the leased area(s) and will designate such areas as a "Sensitive Environmental Area." If so designated, the District may install protection for these resources. Lessee shall preserve these areas during the lease term. The Lessee must not distribute maps or other information describing the locations of these areas except for distribution among the Lessee's staff with a "need to know" technical responsibility for protecting the resources.

ii. Inadvertent Discoveries: If, during the course of this Lease, the Lessee observes items that may have historic or archeological value, Lessee shall immediately report its observations to the District so that it can determine what, if any, additional action is needed. Examples of historic, archeological and cultural resources include bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidence of agricultural or other human activity, alignments, and constructed features. The Lessee shall cease all activities that may result in destroying these resources and shall prevent its employees from removing or otherwise damaging such resources.

(G) Cost-Share Participation Programs

Lessee must obtain written approval from the District before it submits an application for any cost share program to implement best management practices. Lessee will assume all responsibility for compliance with the terms of the cost share contract. The District will not be responsible for any obligations under Lessee's contract or pay any of the Lessee's unpaid cost-share. Lessee shall not agree to anything in the contract that is in conflict with the Lease.

(H) Notification of Certain Events

The lessee shall immediately report any incidence of the following to the District

(1) Fire

(2) Injury or death

(3) Vandalism

(4) Theft

(5) Poaching and trespassing

(6) Any hazard, condition or situation that may become a liability to the District or may be damaging to the Premises or improvements on the Premises of the Lessee or injurious to any person

7. Utilities

Lessee is responsible for the payment of all utilities and service fees and costs, including but not limited to water, cable, sewer, electric, garbage, and trash collection.

8. Notices

All notices required under this Lease: (1) must be in writing (including email communications), (2) must be provided to the respective titles and address of each party provided in the Key Terms on page 1 of this Lease, and (3) must include the District's Lease Number and shall be (as elected by the person giving such notice) hand delivered by messenger or courier service, emailed, or mailed (airmail if international) by registered or certified mail (postage paid), return receipt requested, or sent by any form of overnight mail. Each such notice shall be deemed delivered (1) on the date delivered if by personal delivery; (2) on the date emailed if by email; (3) on the date upon which the return receipt is signed or delivery is refused or the notice is designated by the postal authorities as not deliverable, as the case may be, if mailed; and (4) one day after mailing by any form of overnight mail service. If either party changes the title or address where notices must be provided, it shall promptly notify the other party in writing of the change.

9. Lessee's Risk

9.1 Release of Liability

The District is not liable for any claims of any sort or nature including damages, losses, fines, penalties, liabilities, expenses, costs and attorneys' fees arising out of or in any way related to (1) the condition of the Property, (2) the use of the Property by Lessee, or its agents, employees, contractors, or invitees on the Property, (3) District or public use of the Property, or (4) this Lease.

9.2 Indemnification

Lessee acknowledges its liability for torts to the extent provided and allowed under Section 768.28, Florida Statutes. To the extent the following does not constitute a waiver of sovereign immunity and does not extend Lessee's liability beyond the limitations provided pursuant to Section 768.28 Florida Statutes, Lessee agrees to be solely responsible for all claims, losses, liabilities, costs and expenses attributable to Lessee's negligent acts or omissions, or those of its officials and employees acting within the scope of their employment, in connection with the use of the Property in accordance with this Agreement. The foregoing shall not constitute an agreement by Lessee to assume any liability for the acts, omissions and/or negligence of the District, or any other person or entity. Lessee assumes any and all risks of personal injury, bodily injury and property damage attributable to the negligent acts or omissions of Lessee and the officers, employees, servants, and agents thereof. Lessee and the District further agree that nothing contained herein shall be construed or interpreted as (1) denying to either party any remedy or defense available to such party under the laws of the State of Florida or any political subdivision thereof; (2) the consent of the State of Florida or its agents, agencies, and political subdivisions to be sued by third parties; or (3) a waiver of sovereign immunity of the State of Florida or its agents and agencies or any political subdivision thereof beyond the waiver provided in Section 768.28, Florida Statutes.

The District acknowledges its liability for torts to the extent provided and allowed under Section 768.28, Florida Statutes. To the extent the following does not constitute a waiver of sovereign immunity and does not extend District's liability beyond the limitations provided pursuant to Section 768.28 Florida Statutes, District agrees to be solely responsible for all claims, losses, liabilities, costs and expenses attributable to the District's negligent acts or omissions, or those of its officials and employees acting within the scope of their employment, in connection with District's activities on the Property. The foregoing shall not constitute an agreement by the District to assume any liability for the acts, omissions and/or negligence of the Lessee, or any other person or entity.

9.3 Insurance

Throughout the Term of this Lease Lessee shall maintain insurance coverage for at least the limits and coverage conditions identified in Exhibit "B". The coverage required shall extend to all employees, agents, contractors, suppliers, representatives, invitees, or customers of the

Lessee. Lessee shall provide a Certificate of Insurance for this coverage to the District indicating the producer, insured, carrier's name, and BEST rating, policy numbers and effective and expiration dates of each type of coverage required. The Certificate of Insurance must be signed by the insurance carrier's authorized representative and must identify the District as additional insured. Letter(s) and Certificate(s) with terms of self-insurance are subject to approval by District Risk Management.

10. Termination, Default and Remedies

10.1 Termination by the District for Cause

The District may immediately terminate this Lease for any of the following reasons: (1) any fraud or misrepresentation by the Lessee regarding the Lease; (2) any unauthorized use of or entry on to the Property by the Lessee; (3) the Lessee commits a crime on or adjacent to the Property, or (4) Lessee's default of any of the terms and conditions under this Lease.

10.2 Termination by the District for Convenience

The District may terminate this Lease at any time for convenience by providing at least 180 days prior written notice to Lessee. The District will have no liability for any loss resulting from the termination including, but not limited to, lost profits and consequential damages.

10.3 Termination by Lessee

The Lessee may terminate this Lease at any time for convenience by providing at least 180 days prior written notice to the District.

10.4 Default and Notice

If the Lessee fails to fulfill any of its obligations under this Lease, it is a default of the Lease. In the event of default, the District will provide written notice to Lessee citing the specific nature of the default, after which Lessee must cure the default within 30 days. If the Lessee fails to cure the default within the 30-day period, the District may exercise all rights and remedies provided by law and under this Lease.

11. General Provisions

11.1 Compliance with Laws

The Lessee, its employees, subcontractors or assigns, shall comply with all applicable federal, state, and local laws and regulations relating to the performance of this Lease. The District undertakes no duty to ensure such compliance, but will attempt to advise the Lessee, upon request, as to any such laws of which it has present knowledge.

11.2 Applicable Laws and Venue

The laws of the State of Florida shall govern all aspects of this Lease. In the event it is necessary for either party to initiate legal action regarding this Lease, venue shall be in the Twentieth

Judicial Circuit for claims under state law and in the Southern District of Florida for any claims which are justiciable in federal court.

11.3 Waiver of Jury Trial

As an inducement to the District agreeing to enter into this Lease, the District and Lessee hereby waive trial by jury in any action or proceeding brought by either party against the other party pertaining to any matter whatsoever arising out of or in any way connected with this Lease.

11.4 No Discrimination

Lessee and its agents will not discriminate against any person in a legally protected class with regard to any activity under this Lease.

11.5 Designated Nationals and Blocked Persons

The Lessee, by its execution of this Lease, acknowledges and attests that neither it, nor any of its suppliers, subcontractors, or consultants who shall perform work which is intended to benefit the District is included on the list of Specially Designated Nationals and Blocked Persons (SDN List) which is administered by the U.S. Department of Treasury, Office of Foreign Assets Control. The Lessee further understands and accepts that this Lease shall be either void by the District or subject to immediate termination by the District, in the event there is any misrepresentation. The District, in the event of such termination, shall not incur any liability to the Lessee for any work or materials furnished.

11.6 Governmental Approvals

Prior to the start of this Lease, Lessee shall obtain all necessary government approvals and permits, including all permits from the District as well as any necessary private authorizations and Lessee shall maintain them throughout the term of this Lease. Within five (5) days of demand by the District to the Lessee, Lessee shall submit to the District copies of all permits and authorizations that Lessee is required to obtain. The District provides no assurance that it will approve any permit application submitted by the Lessee. The District will review any permit applications submitted by Lessee in accordance with the laws and regulations in place at the time the application is submitted in the same manner as such an application would be processed for any other permit applicant. The District's permit review will be independent of the fact the District has entered into this Lease.

11.7 E-Verify

Lessee must verify employee authorization to work in the U.S. and certify that a good faith effort has been made to properly identify employees by timely reviewing and completing appropriate documentation, including but not limited to the Department of Homeland Security, U.S. Citizenship, and Immigration Services Form I-9. Answers to questions regarding E-Verify as well as instructions on enrollment may be found at the E-Verify website: www.uscis.gov/e-verify.

11.8 Lessee's Duties Regarding Public Records

(A) Compliance with Florida Laws

Lessee must provide public access to all records concerning this Lease according to applicable Florida laws including Chapter 119, Florida Statutes. If Lessee asserts any exemptions to Florida's public records laws, Lessee has the burden of establishing and defending the exemption.

(B) Recordkeeping and Public Access

Under Florida Statutes 119.0701(3)(a) [2016], a request to inspect or copy public records relating to a District contract for services must be made directly to the District. In addition, Lessee must: (1) keep and maintain public records required by the District in order to perform the service; (2) upon request from the District's custodian of public records, provide the District with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided by law; (3) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the Lease term and following completion of the Lease if the Lessee does not transfer the records to the District; and (4) transfer, at no cost, to the District, all public records in possession of the Lessee or keep and maintain public records required by the District to perform the service. If the Lessee transfers all public records to the District upon completion of the Lease, the Lessee shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Lessee keeps and maintains public records upon completion of the Lease, the Lessee shall meet all applicable requirements for retaining the public records. All records stored electronically must be provided to the District upon request from the District's custodian of public records, in a format that is compatible with the information technology systems of the District. At the conclusion of the Lease with the District, Lessee shall provide to the District all electronic records associated with this Lease on electronic media (CD-ROM or USB flash drive).

(C) IF THE LESSEE HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE LESSEE'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS LEASE, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT TELEPHONE NUMBER (561) 682-2729, EMAIL ADDRESS PUBLICRECORDS@SFWMD.GOV AND MAILING ADDRESS: 3301 GUN CLUB ROAD, WEST PALM BEACH, FL 33406.

11.9 No Third Party Beneficiaries

This Lease is solely for the benefit of the Lessee and the District. No person or entity other than the Lessee or the District shall have any rights or privileges under this Lease in any capacity whatsoever, either as third-party beneficiary or otherwise.

11.10 Assignment

Lessee must not assign, sublease, or otherwise transfer any portion of its rights and obligations under this Lease without an amendment to this Lease. The District in its sole discretion may either allow or refuse an assignment, sublease or transfer. Any Assignment or subcontract made by Lessee without the prior written consent of the District shall be void and of no force or effect.

11.11 Waiver

No waiver of any term of this Lease constitutes a waiver of any other provision, whether similar or dissimilar. No waiver of any term constitutes a continuing waiver. No waiver is binding unless signed in writing by the waiving party.

11.12 Severability

If any term of this Agreement is for any reason invalid or unenforceable, the rest of the Agreement remains fully valid and enforceable.

11.13 Entire Agreement

This Lease constitutes the entire agreement between the parties and supersedes all prior and contemporaneous agreements, representations, and undertakings. No supplement, modification, or amendment of this agreement will be binding unless it is in writing and signed by both parties.

11.14 Interpretation

Unless the context requires otherwise: The term "include" contemplates "including but not limited to."

11.15 Survival

All provisions of this Lease which by their terms bind either party after the expiration or termination of this Lease shall survive the expiration or termination of this Lease.

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Lessor:
South Florida Water Management District
BY ITS GOVERNING BOARD

(Corporate Seal)

Attest: _____
Secretary

Print Name: Rosie Byrd

_____
Drew Bartlett, Executive Director

Date: 2/3/21

_____
Candida Heater, Director
Administrative Services Division

Date: 2/2/2021

SFWMD Legal Form Approved

_____
Thomas R. Sawyer

Date: 1/5/2021

SFWMD Procurement Approved

_____
~~Linda Greer~~ Rachel Clark

Date: 1/20/2021

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

ATTEST: LINDA DOGGETT
CLERK OF COURTS

By: Missy Flint
Deputy Clerk

COUNTY: LEE COUNTY, FLORIDA
BOARD OF COUNTY COMMISSIONERS

By: Kevin Ruane, Chair

BOARD OF COUNTY COMMISSIONERS SEAL LEE COUNTY, FLORIDA

APPROVED AS TO FORM FOR THE
RELIANCE OF COUNTY ONLY

By: Joseph Adams
County Attorney's Office

Exhibit A

Caloosahatchee Regional Park

Lee County

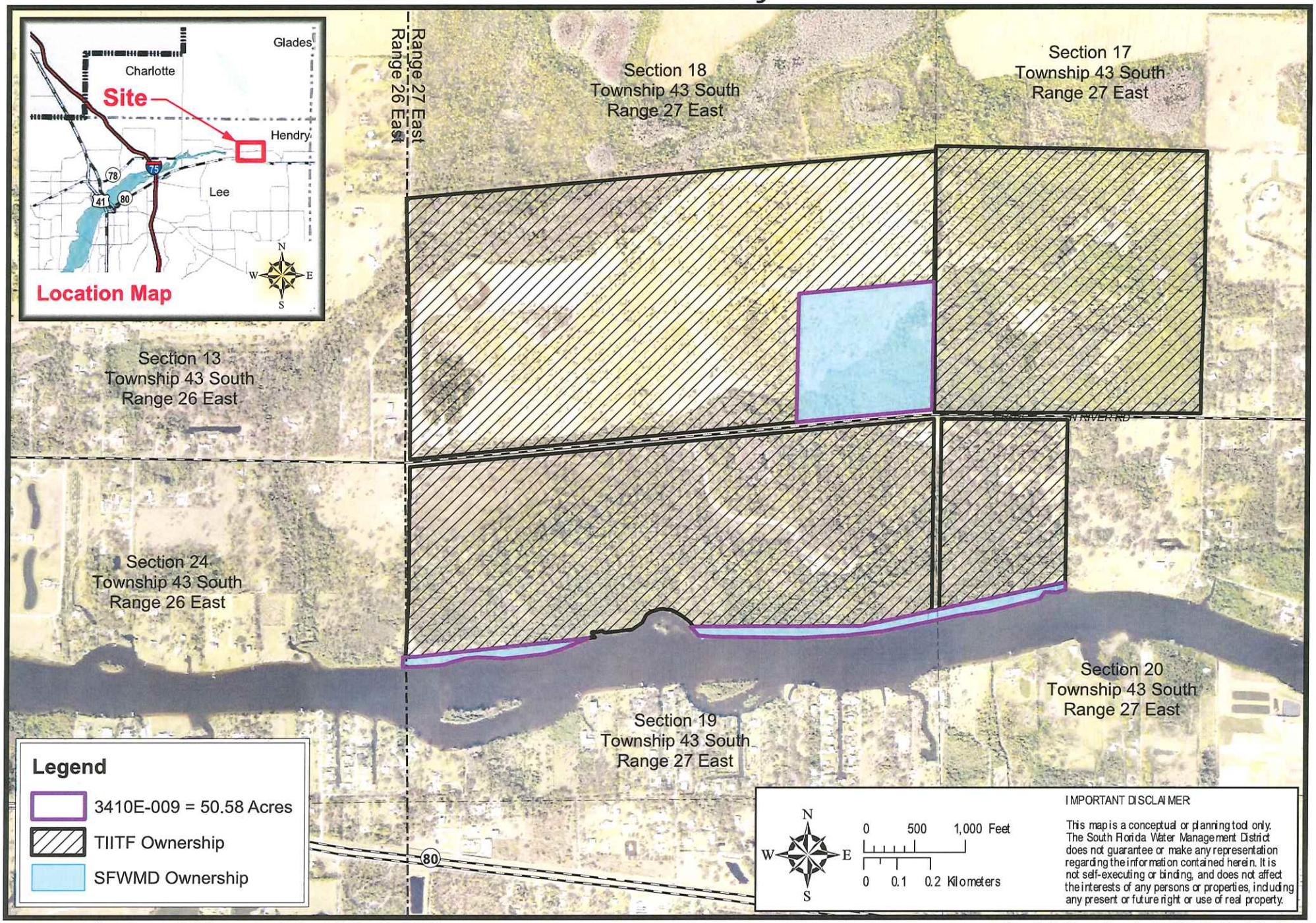

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EXHIBIT B
SOUTH FLORIDA WATER MANAGEMENT DISTRICT
INSURANCE REQUIREMENTS CHECKLIST

Lee County Caloosahatchee Regional Park
Lease # 3410E-009

TYPE OF COVERAGE		MINIMUM COVERAGE LIMITS Self-Insurance in accordance with F.S. 768.28
Must be Included if marked "X"	**Commercial General Liability Comprehensive Coverage/ Other Coverage Endorsements**	**Bodily Injury & Property Damage** $200,000. Per Occurrence $300,000. General Aggregate or CSL $200,000. Products – Comp/Op Aggregate
	(Please note special instructions →)	**Special instructions:**
X	Occurrence Form	Prior to commencement of any activities or access to District property or equipment under this agreement, Lessee is required to provide District with an acceptable certificate of insurance, as well as an additional insured endorsement and a waiver of subrogation endorsement. Coverage and limits must be in accordance with these requirements, be no more restrictive than the most recent ISO forms and the District must be listed as a certificate holder. **Coverage requirements shall extend to all employees and subcontractors; Lessee is responsible.**
X	Premises Operations	
	Delete XCU Exclusion (if applied)	
X	Products Completed	
X	Contractual	
X	Independent Contractors	
X	Broad Form Property	
X	Personal Injury	
	Blasting	
	Demolition	
	Watercraft – by exception for Non-Owned or Hull/ P&I (if used in project)	
	Pollution extension, CPL or separate EIL for pollution losses, including herbicides	
	Automobile Liability	**Bodily Injury & Property Damage** $200,000. Per Claimant BI $300,000. Per Occurrence BI $10,000. Per Claimant PD $10,000. Per Occurrence PD $10,000. PIP
X	Any Auto Covered	
X	**Workers' Compensation and Employer's Liability** (if required per F.S. Chapter 440)	**Statutory Limits** $100,000. Occurrence $500,000. Aggregate $100,000. Disease

South Florida Water Management District must be named as an "Additional Insured" except for Workers' Compensation and Employer's Liability, Professional Liability and Inland Marine. Contractor must use the following ISO form(s), or others approved by District Risk Management: Additional Insured Endorsement Form(s) CG2010, CG2037. Must use ISO Waiver of Subrogation Endorsement CG2404 except for Professional Liability and Inland Marine. Endorsements must be listed on the certificate or copies provided.

The Certificate holder shall be designated as:	**Insurance Requirements reviewed by:**
South Florida Water Management District 3301 Gun Club Road West Palm Beach, FL 33406	DGW 01/24/2020

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Exhibit C

Baseline Inspection Report

Land Inspector		PropertyID:

Project Name:		Acreage:	
Lessee/Property:		Purpose:	
Contract No:		Status:	
County:			

Funding Year		Inspection Date:		Inspection Type:	

Inspection Questionnaire	Yes	No	NA	Action Required	Comments/Recommendations
Has the land manager performed the leased area walk-through with the new lessee?	☐	☐	☐	☐	
Is the entire property perimeter fenced? If not, identify the portion remaining unfenced? Is there a new fence and gate plan requirement in place for the new lease?	☐	☐	☐	☐	
Are there any existing buildings on the property that were inventoried at the baseline (e.g. residences, mobile homes, travel trailers, buildings, barns, sheds, out-houses)? If yes, provide exact location (Lat/Long), written documentation and photos representing the condition of each using the Property Asset Form.	☐	☐	☐	☐	
Are there any pumps on the property? If yes, provide exact location (Lat/Long), written documentation and photos representing the condition of each using the Property Asset Form.	☐	☐	☐	☐	
Are there wells on the property? If yes, provide exact location (Lat/Long), written documentation and photos representing the condition of each using the Property Asset Form.	☐	☐	☐	☐	
Is there any personal property on the premises? If yes, provide exact location (Lat/Long), written documentation and photos representing the condition of each using the Property Asset Form.	☐	☐	☐	☐	
Is there any evidence of unauthorized mowing, vegetation removal, vegetation maintenance methods and land clearing, dredging or filling activities in wetlands from the previous lessee? If yes, please provide exact location (Lat/Long), written documentation and photographs.	☐	☐	☐	☐	
Is the leased area free of refuse/garbage/litter? If no, provide exact location (Lat/Long), written documentation and photos representing the condition of each area of concern.	☐	☐	☐	☐	

Lessee's Acknowledgement and Signature: _____ **Date:** _____

Baseline Inspection Report

Land Inspector		PropertyID:

Project Name:		Acreage:	
Lessee/Property:		Purpose:	
Contract No:		Status:	
County:			

Funding Year		Inspection Date:		Inspection Type:	

Inspection Questionnaire	Yes	No	NA	Action Required	Comments/Recommendations
Is there any evidence of spills of contaminants, hazardous/ toxic substance that require clean-up or remediation (e.g. petroleum products, pesticides, fertilizers, animal vaccinations and parasite control pharmaceuticals)? If yes, determine if a Phase 1 Environmental Assessment needed and provide Leasing Administration exact location (Lat/Long), written documentation and photos representing the condition of each.	☐	☐	☐	☐	
Are there any fuel tanks (above ground or below) on the property? If yes, provide exact location (Lat/Long), written documentation and photos representing the condition of each using the Property Asset Form.	☐	☐	☐	☐	
Is there evidence of unauthorized activities such as trespass, vandalism, squatting, etc.? If yes, please document/ photograph activities and contact Land Management Section.	☐	☐	☐	☐	
Are the public access facilities (parking lots, trails, trail signs, blaze posts) in good condition? If no, document the facility condition and provide photos in the Property Asset Form and contact Land Management Section.	☐	☐	☐	☐	
Is there a Surface Water Management plan for the leased area? If yes, please identify the ditches and canals included in the maintenance schedule of the lease and provide written documentation and photos representing the condition of each area.	☐	☐	☐	☐	

Additional Comments:

Lessee's Acknowledgement and Signature: _____ **Date:** _____

Exhibit D

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

FYI

FOR YOUR INFORMATION

This fact sheet is provided as a reference to encourage a greater understanding of the various issues related to managing water in South Florida.

Dispersed Water Management

Caulkins Water Farming project in Martin County

Since 2005, the South Florida Water Management District has collaborated with landowners, agencies, and environmental organizations to enhance opportunities for storing excess surface water. In addition to utilizing publicly-owned lands, the legislatively authorized Dispersed Water Management Program pays private owners to retain water on their land. Holding water on these lands reduces the amount of water flowing into Lake Okeechobee and discharged to coastal estuaries. Shallow water retention also provides valuable groundwater recharge for water supply, as well as opportunities for water quality improvement and rehydration of drained systems.

Program Components

- Dispersed water is water distributed across designated lands that utilize simple structures to retain it.
- Private landowner involvement typically includes cost-share projects, easements or payment for these services.

Benefits of Dispersed Water Management

- Ongoing Lake Okeechobee and estuary ecological improvement projects are enhanced by providing an alternative to sending excess water into the lake and reducing the volume of discharges to estuaries.
- Retained water reduces nutrient loading to receiving downstream systems by limiting the volume of water delivered.
- Detained water reduces the concentration of nutrients in the runoff, as it slowly flows across the landscape.
- Shallow groundwater recharge opportunities are expanded.

Increased Water Storage

- Through the use of private and public lands, thousands of acre-feet of water retention and storage have been made available in the greater Everglades system.

South Florida Water Management District
3301 Gun Club Road • West Palm Beach, Florida 33406
561-686-8800 • www.sfwmd.gov

sfwmd.gov

FLORIDA DEPARTMENT OF
Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

August 9, 2021

Ms. Emily Gear
Lee County
Parks and Recreation
3410 Palm Beach Boulevard
Fort Myers, Florida 33916

RE: Caloosahatchee Regional Park Management Plan Amendment - Lease No. 3698

Dear Ms. Gear,

The Division of State Lands, Office of Environmental Services, acting as agent for the Board of Trustees of the Internal Improvement Trust Fund, hereby approves the management plan amendment for the stabilization of the Oxbow Island and shoreline. This approval amends the October 14, 2011 management plan. That management plan is due for update by October 14, 2021. Please include these management activities in the next update.

Pursuant to s. 253.034(5)(a), F.S., each management plan is required to "describe both short-term and long-term management goals, and include measurable objectives to achieve those goals. Short-term goals shall be achievable within a 2-year planning period, and long-term goals shall be achievable within a 10-year planning period." Upon completion of short-term goals, please submit a signed letter identifying categories, goals, and results with attached methodology to the Division of State Lands, Office of Environmental Services.

Pursuant to s. 259.032(8)(g), F.S., by July 1 of each year, each governmental agency and each private entity designated to manage lands shall report to the Secretary of Environmental Protection, via the Division of State Lands, on the progress of funding, staffing, and resource management of every project for which the agency or entity is responsible.

Pursuant to s. 259.032, F.S., and Chapter 18-2.021, F.A.C., management plans for areas less than 160 acres may be handled in accordance with the negative response process. This process requires management plans and management plan amendments be submitted to the Division of State Lands for review, and the Acquisition and Restoration Council (ARC) for public notification. The Division of State Lands will approve these plans or plan amendments submitted for review through delegated authority unless three or more

ARC members request the division place the item on a future council meeting agenda for review. To create better efficiency, improve customer service, and assist members of the ARC, the Division of State Lands will notice negative response items on Thursdays except for weeks that have State or Federal holidays that fall on Thursday or Friday. The Division of State Lands will contact you on the appropriate Friday to inform you if the item is approved via delegated authority or if it will be placed on a future ARC agenda by request of the ARC members.

Pursuant to s. 259.036(2), F.S., management areas that exceed 1,000 acres in size, shall be scheduled for a land management review at least every 5 years.

Approval of this land management plan amendment does not waive the authority or jurisdiction of any governmental entity that may have an interest in this project. Implementation of any upland activities proposed by this management plan may require a permit or other authorization from federal and state agencies having regulatory jurisdiction over those particular activities. Pursuant to the conditions of your lease, please forward copies of all permits to this office upon issuance.

Sincerely,

Deborah Burr
Office of Environmental Services
Division of State Lands

Caloosahatchee Regional Park
Land Stewardship Plan Amendment, August 2021
Lee County, Florida

Introduction:
Located in southwest Florida in northeastern Lee County, Caloosahatchee Regional Park (CRP) encompasses approximately seven hundred sixty-eight (768) acres and is located on the north side of the Caloosahatchee River. Seven hundred eighteen acres (718) of the site are leased from the TIITF. Lee County obtained a lease from the South Florida Water Management District (SFWMD; District) for fifty (50) acres on April 20, 2004 and is currently operating under lease number 3410E-009 effective starting February 2021, to be renewed every year.

CRP was opened to the public in March 1999. The south side (portion of CRP south of County Road 78) includes picnic shelters, restrooms, hiking trails totaling 5.25 miles, a campground, a lodge, an overlook, fishing pier, a canoe/kayak launch, parking and offices. The campground area of the park features 28 primitive tent camping sites. Group and equestrian camping options are available, as well as special use areas for large events. The north side (portion of CRP north of County Road 78) has 11.30 miles of mountain bike trails and 6.25 miles of equestrian trails as well as a picnic shelter, parking and restroom facilities.

While in the process of conducting the second 10-year update of the Caloosahatchee Regional Park Land Stewardship Plan, staff has recognized the need to amend sections of the plan to include managing and restoring the small Oxbow Island's eroding shoreline, as well as the land to the north and northwest of the island currently held by TIITF. This Oxbow Island is identified within the boundaries of the state properties.

Location:
CRP is located in southwest Florida within Sections 17, 18, 19 and 20 of Township 43 South, Range 27 East and is entirely within the northeastern portion of Lee County. It is divided by County Road 78 (North River Road) and is approximately two miles west of the town of Alva. CRP is bordered by private residences to the east and west, the Bob Janes Preserve (Lee County portion of the Babcock Ranch Preserve) to the north and Caloosahatchee River to the south.

Acquisition History:
The State of Florida began purchasing the lands currently known as the Caloosahatchee Regional Park (CRP) in 1969. Lee County obtained a 50-year lease to the property in 1989 to offer and promote appropriate, resource-based, recreational activities while maintaining the over-arching goal of natural and cultural resource protection.

The 50-year TIITF lease agreement (Lease No. 3698) with the Board of County Commissioners (BoCC) directs the BoCC (via Lee County Parks and Recreation, LCPR) to manage the leased premises only for the conservation and protection of natural and historical resources and resource-based, public outdoor recreation which is compatible with the conservation and protection of these public lands, as set forth in subsection 253.023(11), FS. The lease agreement

further directs the BoCC (via LCPR) to "implement applicable Best Management Practices for all activities under this lease in compliance with paragraph 18-2.018(2)(h), FAC, which have been selected, developed, or approved by lessor, lessee, or other land managing agencies for the protection and enhancement of the leased premises."

Management Authority:
Board of County Commissioners of Lee County, Florida (Department of Parks and Recreation).

Land Cover and Vegetation:
Providing scenic vistas, the approximately 6,700 linear feet (1.3 miles) of undeveloped frontage on the Caloosahatchee River is a unique feature of the park. Approximately 52% of CRP consists of areas disturbed by deposit of dredge spoil in the 1960s, while 24% is in upland, and 24% is in wetland communities. The diverse plant communities of the site include pine flatwoods, palmetto scrub, cypress, hardwood bottomland, and oak hammock. Wildlife observed include bobcat (*Lynx rufus*), white-tailed deer (*Odocoileus virginianus*), raccoon (*Procyon lotor*), river otter (*Lontra canadensis*), eastern indigo snake (*Drymarchon corais couperi*), eastern diamondback rattlesnake (*Crotalus adamanteus*), gopher tortoise (*Gopherus polyphemus*), red-shouldered hawk (*Buteo lineatus*), barred owl (*Strix varia*), swallow-tailed kite (*Elanoides forficatus*), wild turkey (*Meleagris gallopavo*) and Audubon's crested caracara (*Caracara cheriway*).

Management Plan:
An update to the Caloosahatchee Regional Park Land Stewardship Plan is due October 2021. However, at this time, Lee County is submitting this amendment to the management plan to include environmentally sound management practices on and around the small oxbow island that is adjacent to the shoreline and within the Caloosahatchee Regional Park boundary, as well as the land to the north and northwest of the island currently held by TIITF, as seen in Figure 2.

Project:
The shoreline at Caloosahatchee Regional Park has eroded due to wave action from boats and tidal influences at a rate of approximately one foot per year. The installation of rip-rap, filter fabric and wetland vegetation will restore and prevent the continuous erosion along 3,235 linear feet of the western shoreline in Phase III of the project. This project will harden the remaining stretch of exposed shoreline at the park. Phase I and II of this project have been completed. This phase will include the stabilization of the Oxbow Island and the shoreline to the north and northwest (Figure 2). A modification to the approved South Florida Water Management District ERP No. 36-103161-P is in the process of being submitted for the inclusion of the Oxbow Island. The United States Army Corp of Engineers has approved work within navigable waters south of CRP, Permit No. SAJ-2020-01210 (SP-RWR). The work is slated to be completed by the current contractor, T.S.I. Disaster Recovery.

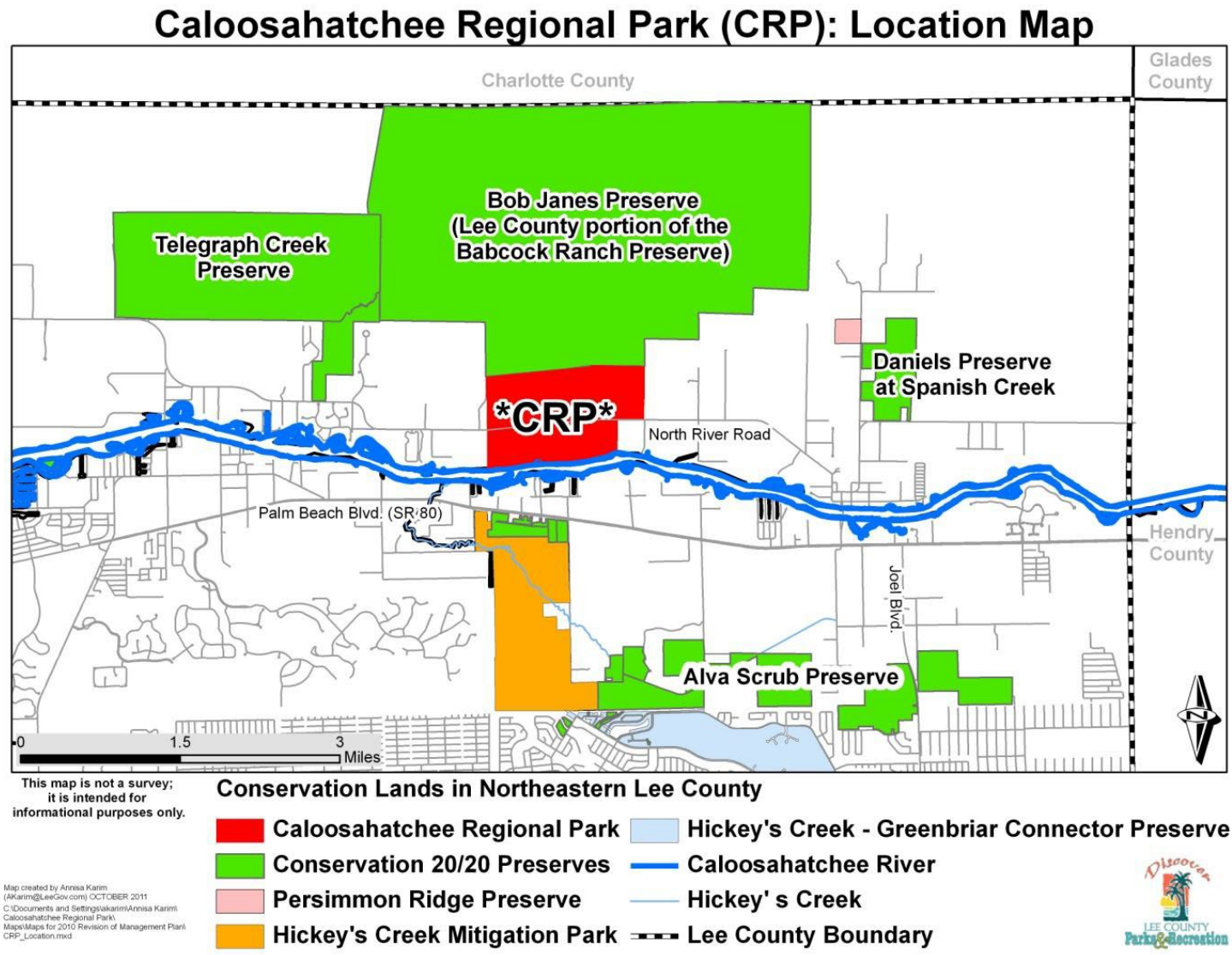
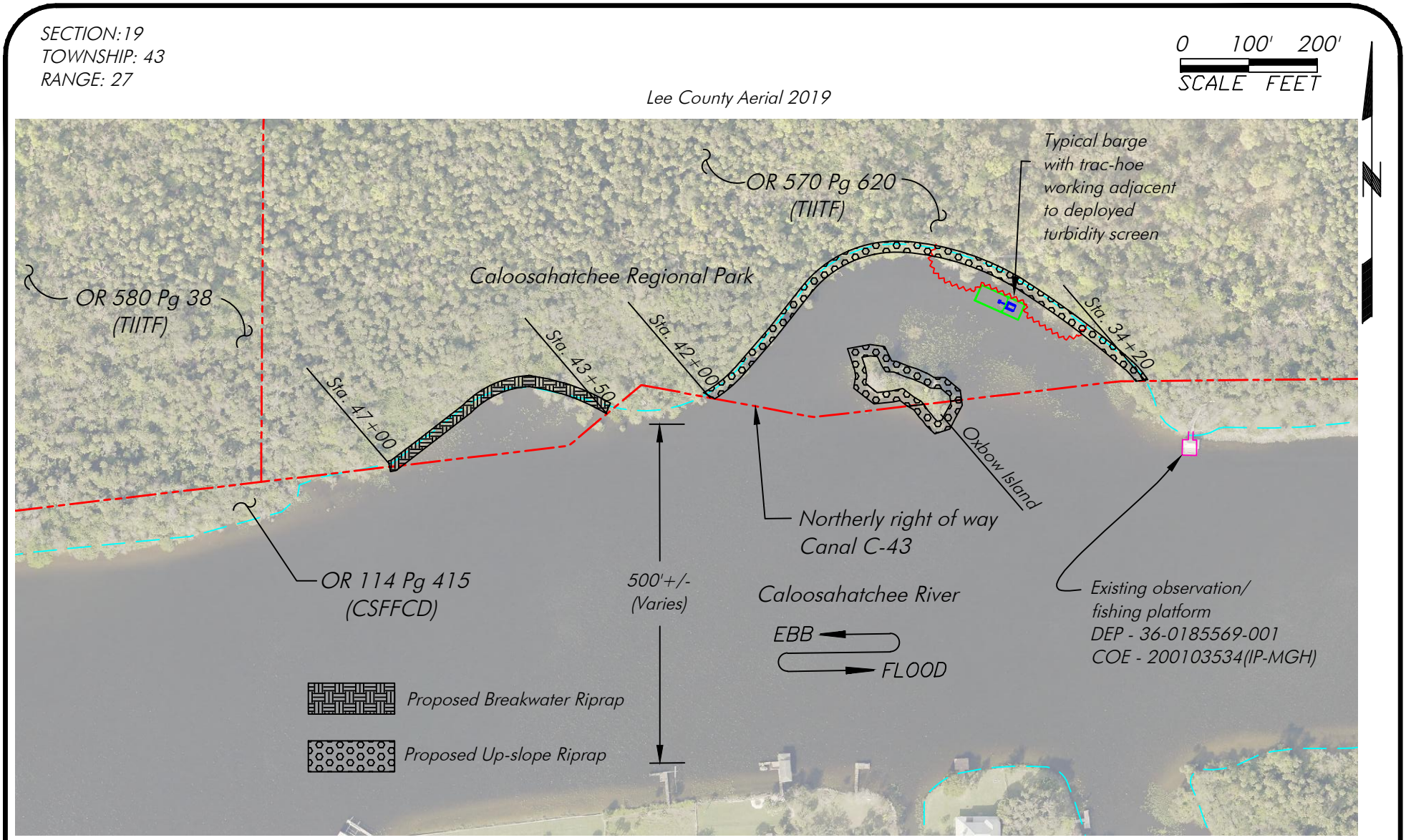


Figure 1: Caloosahatchee Regional Park and surrounding conservation areas.

Figure 2: Site plan Depicting Proposed Shoreline Stabilization Improvements along TIITF Lands.



Attention is directed to the fact that electronic reproduction may alter the apparent scale of this plan set.

Site Plan - State Sovereign Submerged Lands

SCALE: 1" = 200'

DISCUSSION PLANS, NOT FOR CONSTRUCTION

June 11, 2021 9:27:14 a.m.
Drawing: LEE28MASTER.DWG

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MARINE and ENVIRONMENTAL CONSULTANTS

6.11.2021

cry

Caloosahatchee Regional Park
Shoreline Stabilization

SHEET

Scientific Name	Common Name	Native Status	EPPC	FDACS	IRC
Family: Acanthaceae					
Ruellia blechum (syn. = Blechum pyramidatum)	Browne's Blechum	exotic	II		
Ruellia tweediana	Britton's wild peteunia, Mexican Bluebell	exotic	I		
Thunbergia fragrans	Whitelady	exotic			
Family: Altingiaceae					
Liquidambar stryacifulua	Sweetgum	native			PE
Family: Amaranthaceae					
Alternanthera philoxeroides	Alligatorweed	exotic	II		
Family: Amaryllidaceae					
Crinum americanum	Seven-sisters, string-lily	native			S
Family: Anacardiaceae					
Rhus copallinum	Winged Sumac	native			S
Schinus terebinthifolius	Brazilian Pepper	exotic	I		
Toxicodendron radicans	Eastern Poison Ivy	native			S
Family: Annonaceae					
Annona glabra	Pond Apple	native			S
Asimina reticulata	Netted Pawpaw	native			S
Family: Apiaceae					
Centella asiatica	Spadeleaf	native			S
Cicuta maculata	Spotted Water Hemlock	native			I
Hydrocotyle umbellata	Manyflower Marshpennywort	native			R
Family: Aquifoliaceae					
^Ilex cassine	Dahoon Holly	native			S
Ilex glabra	Gallberry, Inkberry	native			S
Family: Araceae					
Colocasia esculenta	Wild Taro, Dasheen, Coco Yam	exotic	I		
Pistia stratiotes	Watter-lettuce	exotic	I		
Family: Arecaceae					
Sabal palmetto	Cabbage Palm	native			S
Serenoa repens	Saw Palmetto	native			S
Syagrus romanzoffiana	Queen Palm	exotic	II		
Family: Apocynaceae					
Asclepias curassavica	Scarlet Milkweed	exotic			
Cynanchum scoparium	Leafless Swallowwort	native			R
Sarcostemma clausum	White Twinevine	native			S
Family: Asteraceae					
Ambrosia artemisiifolia	Common Ragweed	native			S
Baccharis glomeruliflora	Silverling	native			S
Baccharis halimifolia	Groundsel Tree, Sea Myrtle	native			S
Bidens alba	Beggarticks	native			S
Carphephorus corymbosus	Florida Paintbrush, Coastalplain Chaffhead	native			R
Cirsium horridulum	Purple Thistle	native			S
Conoclinium coelestinum	Blue Mistflower	native			S
Elephantopus elatus	Tall Elephant's-foot	native			R
Emilia fosbergii	Florida Tasselflower	exotic			
Eupatorium Capillifolium	Dogfennel	native			S
Eupatorium rotundifolium	Roundlead Thoroughwort, False Horehound	native			I
Eupatorium serotinum	Lateflowering Thoroughwort	native			R
Euthamia caroliniana	Slender Flattop Goldenrod	native			S
Hieracium megacephalon	Coastal Plainhawkweed	native			S
Laitris spp.	Blazing Star, Gayfeather	native			
Lygodesmia aphylla	Rose-rush	native			R
Mikania cordifolia	Florida Keys Hempvine	native			R
Mikania scandens	Climbing Hempvine	native			S
Pityopsis Graminifolia	Narrowleaf Silkgrass	native			S
Pluchea Odorata	Sweetscent	native			S
Pterocaulon pycnostachyum	Blackroot	native			S
Rudbeckia hirta	Blackeyed Susan	native			R
Solidago fistulosa	Pinebarren Goldenrod	native			R
Solidago odora var. chapmanii	Chapman's Goldenrod	native			S
Sonchus asper	Spiny Sowthistle	exotic			
Sphagneticola trilobata	Creeping Oxeye	exotic	II		
Symphyotrichum carolinianum	Climbing Aster	native			R
Symphyotrichum dumosum	Rice Button Aster	native			S
Youngia japonica	Oriental Flase Hawksbeard	exotic			
Family: Bignoniaceae					
Campsis radicans	Trumpet Creeper	native			CI
Family: Blechnaceae					
Blechnum serrulatum	Swamp Fern, Toothed Midsorus Fern	native			S
Woodwardia virginica	Virginia Chain Fern	native			S
Family: Bromeliaceae					

Tillandsia balbisiana	Northern Needleleaf	native		T	S
Tillandsia fasciculata var. densispica	Stiff-leaved Wild-pine, Cardinal Airplant	native		E	S
Tillandsia recurvata	Ballmoss	native			S
Tillandsia Setacea	Southern Needleleaf	native			S
Tillandsia usneoides	Spanish Moss	native			S
Tillandsia utriculata	Giant Wild Pine, Giant Airplant	native		E	S
Family: Caprifoliaceae					
^Lonica sempervirens	Coral Honeysuckle	native			
Viburnum obovatum	Small-leaf Viburnum, Walter's Viburnum	native			I
Family: Cistaceae					
Helianthemum corymbosum	Pinebarren Frostweed	native			R
Family: Clusiaceae					
Hypericum hypericoidies	St. Andrew's-cross	native			S
Hypericum tetrapetalum	Fourpetal St. John's-wort	native			S
Family: Commelinaceae					
Callisia ornata	Florida Scrub Roseling	native			I
Commelina diffusa	Common Dayflower	exotic			
Family: Convolvulaceae					
Dichondra carolinensis	Carolina Ponysfoot	native			S
Ipomoea alba	Moonflowers, Tropical White Morning-glory	native			S
Ipomoea indica	Oceanblue Morning-glory	native			S
Ipomoea quamoclit	Cypressvine	exotic			
Ipomoea sagittata	Saltmarsh Morning-glory	native			AS
Family: Cornaceae					
Cornus foemina	Swamp Dogwood, Stiff Dogwood	native			R
Family: Cucurbitaceae					
Melothria pendula	Creeping Cucumber	native			S
Momordica charantia	Balsampear	exotic			
Family: Cupressaceae					
Juniperus virginiana	Red Cedar	native			
Taxodium Ascendens	Pond Cypress	native			S
Family: Cyperaceae					
Cladium jamaicense	Jamaica Swamp Sawgrass	native			S
Cyperus involucratus	Umbrella Plant	exotic	II		
Cyperus ligularis	Swamp Flatsedge	native			S
Cyperus odoratus	Fragrant Flatsedge	native			S
Cyperus croceus	Baldwin's Flatsedge	native			R
Rhynchospora colorata	Starrush Whitetop	native			R
Family: Dennstaedtiaceae					
Pteridium aquilinum var. pseudocaudatum	Tailed Bracken Fern	native			R
Family: Ebenaceae					
Diospyros virginiana	Common Persimmon	native			R
Family: Ericaceae					
Bejaria racemosa	Tarflower	native			R
Lyonia ferruginea	Rusty Staggerbush	native			PE
Lyonia fruticosa	Coastalplain Staggerbush	native			S
Lyonia lucida	Fetterbush	native			S
Vaccinium corymbosum	Highbush Blueberry	native			CI
Vaccinium myrsinites	Shiny Blueberry	native			S
Family: Euphorbiaceae					
Chamaesyce hirta	Pillpod Sandmat	native			S
Family: Fabaceae					
Abrus precatorius	Rosary pea, Blackeyed Susan	exotic	I		
Aeschynomene americana	Shyleaf	native			R
Albizia lebbeck	Woman's Tongue	exotic	I		
Apios Americana	Groundnut	native			R
Centrosema virginianum	Spurred Butteryfly Pea	native			S
Chamaecrista fasciculata	Partridge Pea	native			S
Chamaecrista nictitans var. aspera	Sensitive Pea	native			S
Crotalaria pallida var. obovata	Smooth Rattlebox	exotic			
Crotalaria spectabilis	Showy Rattlebox	exotic			
Dalbergia sissoo	Indian Rosewood	exotic	II		
Desmodium incanum	Zarzabacoa Comun	exotic			
^Erythrina herbacea	Coralbean, Cherokee Bean	native			S
Galactia elliottii	Elliott's Milkpea	native			R
Indigofera hirsuta	Hairy Indigo	exotic			
Leucaena leucocephala	White Leadtree	exotic	II		
Senna pendula var. glabrata	Valamuerto, Christmas Cassia, Climbing Cassia	exotic	I		
Vigna luteola	Hairy Cowpea	native	I		S
Family: Fagaceae					
Quercus chapmanii	Chapman's Oak	native			S

Quercus laurifolia	Laurel Oak	native			S
Quercus minima	Dwarf Live Oak	native			R
Quercus pumila	Running Oak	native			R
Quercus virginiana	Live Oak	native			S
Family: Iridaceae					
Iris hexagona	Dixie Iris, Prairie Iris	native			I
Sisyrinchium angustifolium	Narrowleaf Blue-eyed Grass	native			R
Family: Juglandaceae					
Carya aquatica	Water Hickory	native			I
Family: Juncaceae					
Juncus marginatus	Shore Rush, Grassleaf Rush	native			R
Family: Lamiaceae					
Callicarpa americana	American Beautyberry	native			S
Clerodendrum indicum	Turk's Turban, Skyrocket	exotic			
Piloblephis rigida	Wild Pennyroyal	native			
Family: Lauraceae					
Persea borbonia	Red Bay	native			R
Persea Palustris	Swamp Bay	native			S
Family: Malvaceae					
Kosteletzkya pentacarpus	Virginia Saltmarsh Mallow	native			S
Malvastrum corchorifolium	False mallow	native			S
Sida cordifolia	Ilima	exotic			
Urena lobata	Caesarweed	exotic	II		
Waltheria indica	Sleepymorning	native			S
Family: Meliaceae					
Melia azedarach	Chinaberrytree	exotic	II		
^Swietenia mahagoni	West Indian Mahogany	native		T	
Family: Moraceae					
Ficus aurea	Strangler Fig, Golden Fig	native			S
Morus rubra	Red Mulberry	native			R
Family: Myricaceae					
Myrica cerifera	Wax Myrtle, Southern Bayberry	native			S
Family: Myrsinaceae					
Ardisia elliptica	Shoebutton	exotic	I		
Ardisia escallonioides	Marlberry	native			S
Rapanea punctata	Myrsine, Colicwood	native			S
Family: Myrtaceae					
Eugenia axillaris	White Stopper	native			S
Eugenia uniflora	Surinam Cherry	exotic	I		
Melaleuca quinquenervia	Melaleuca, Punktree	exotic	I		
Myrcianthes fragrans	Twinberry, Simpson's Stopper	native		T	T
Psidium guajava	Guava	exotic	I		
Family: Nephrolepidaceae					
Nephrolepis exaltata	Sword Fern, Wild Boston Fern	native			S
Family: Nyssaceae					
Nyssa sylvatica var. biflora	Swamp Tupelo	native			CI
Family: Oleaceae					
Fraxinus caroliniana	Water Ash, Carolina Ash, Pop Ash	native			R
Forestiera segregata	Florida Swampprivet	native			S
Family: Ophioglossaceae					
Ophioglossum palmatum	Hand Fern	native		E	I
Family: Orchidaceae					
Encyclia tampensis	Florida Butteryfly Orchid	native		CE	S
Habenaria quinqueseta	Longhorn Flase Reinorchid, Michaux's Orchid	native			R
Habenaria repens	Waterspider Flase Reinorchid	native			I
Sacoila Lanceolata	Leafless Beaked Ladiestresses, Leafless Beaked Orchid	native		T	I
Zeuxine strateumatica	Soldier's Orchid, Lawn Orchid	exotic			
Family: Orobanchaceae					
Buchenra americana	American Bluehearts	native			S
Family: Passifloraceae					
Passifloria suberosa	Corkystem Passionflower	native			S
Family: Phyllanthaceae					
Bischofia javanica	Javanese Bishopwood	exotic	I		
Family: Phytolaccaceae					
Phytolacca americana	American Pokeweed	native			S
Rivina humilis	Rouge Plant	native			S
Family: Pinaceae					
Pinus elliotti var. densa	South Florida Slash Pine	native			S
^Pinus palustris	Longleaf Pine	native			I
Family: Platanaceae					
^Platanus occidentalis	American Sycamore, American Planetree	native			
Family: Poaceae					
Amphicarpum muhlenbergianum	Blue Maidencane	native			R

Andropogon glomeratus var. glaucopsis	Purple Bluestem	native			R
Andropogon glomeratus var. pumilus	Bushy Bluestem	native			S
Andropogon virginicus var. glaucus	Chalky Bluestem	native			R
Arundo donax	Giant Reed	exotic			
Cenchrus spp.	Sandbur	native			
Cynodon dactylon	Bermuda Grass	exotic			
Dichanthelium aciculare	Needleleaf Witchgrass	native			S
Dichanthelium commutatum	Variable Witchgrass	native			R
Dichanthelium portoricense	Hemlock Witchgrass	native			S
Dichanthelium Strigosum var. glabrescens	Roughhair Witchgrass	native			S
Eragrostis elliotti	Elliott's Lovegrass	native			S
Imperata brasiliensis	Brazilian Satintail	native			R
Imperata cylindrica	Cogongrass	exotic			
Melinis repens	Rose Natalgrass	exotic	I		
Oplismenus hirtellus	Woodsgrass, Basketgrass	native			AS
Panicum maximum	Guinea Grass	exotic	II		
Panicum rigidulum	Redtop Panicum	native			S
Panicum virgatum	Switchgrass	native			S
Paspalum conjugatum	Sour paspalum, hilograss	native			S
Paspalum notatum	Bahiagrass	exotic			
Paspalum urvilleu	Vasseygrass	exotic			
Pennisetum purpureum	Napiergrass, Elephantgrass	exotic	I		
Rottboellia cochinchinensis	Itchgrass	exotic			
^Spartina bakeri	Sand Cordgrass	native			S
Sporobolus indicus var. pyramidalis	West Indian Dropseed	exotic			
Stenotaphrum secundatum	St. Augustinegrass	native			
^Tripsacum dactyloides	Eastern Gamagrass, Fakahatcheegrass.	native			R
Family: Polygalaceae					
Polygala nana	Candyroot	native			R
Polygala rugelli	Yellow Milkwort	native			I
Polygala violacea	Showy Milkwort	native			
Family: Polygonaceae					
Polygonum punctatum	Dotted Smartweed	native			AS
Family: Polypodiaceae					
Phlebodium aureum	Golden Polypody	native			S
Pleopeltis polypodioides var. machauxiana	Resurrection Fern	native			S
Family: Primulaceae					
Samolus valerandi subsp. Parviflorus	Pineland Pimpernel, Seaside Brookweed	native			R
Family: Psilotaceae					
Psilotum nudum	Whisk-fern	native			S
Family: Pteridaceae					
Acrostichum danaeifolium	Giant Leather Fern	native			S
Family: Rosaceae					
Rubus cuneifolius	Sand Blackberry	native			I
Rubus trivialis	Southern Dewberry	native			R
Family: Rubiaceae					
Dioda teres	Poor Jue, Rough Buttonweed	native			R
Psychotria nervosa	Wild Coffee	native			S
Psychotria suizneri	Shortleaf Wild Coffee	native			S
Randia aculeata	White Indigoberry	native			S
Spermacoce remota	Woodland Flase Buttonweed	native			S
Family: Rutaceae					
Citrus reticulata	Tangerine	exotic			
^^Citrus xparadisi	Grapefruit	exotic			
Zanthoxylum fagara	Wild Lime, Lime Pricklyash	native			S
Family: Salicaceae					
Salix caroliniana	Coastalplain Willow	native			S
Family: Sapotaceae					
Chrysophyllum oliviforme	Satinleaf	native		T	R
Sideroxylon celastrinum	Saffron Plum	native			S
Family: Sapindaceae					
Acer rubrum	Red Maple	native			S
Cardiospermum halicacabum	Love-in-a-puff, Ballon Vine	exotic			
Cupaniopsis anacardioides	Carrotwood, Tuckeroo	exotic	I		
Family: Schizaeaceae					
Lygodium microphyllum	Small-leaf Climbing Fern, Old-world Climbing Fern	exotic	I		
Family: Schoepfiaceae					
Schoepfia chrysophylloides	Graytwig	native			R
Family: Scrophylariaceae					
Bacopa monnieri	Herb-of-grace	native			S
Family: Smilacaceae					
Smilax auriculata	Earleaf Greenbrier	native			S
Smilax bona-nox	Saw Greenbrier	native			R

Smilax tamnoides	Bristly Greenbrier, Hogbrier	native			I
Family: Solanaceae					
Solanum americanum	American Black Nightshade	native			S
Family: Sterculiaceae					
Melochia corchorifolia	Chocolateweed	exotic			
Family: Tetrachondraceae					
Polypremum procumbens	Rustweed, Juniperleaf	native			S
Family: Thelypteridaceae					
Thelypteris dentata	Downy Maiden Fern	exotic			
Thelypteris kunthii	Southern Shield Fern	native			S
Family: Tiliaceae					
Triumfetta semitriloba	Sacromento Burrbark	exotic			
Family: Ulmaceae					
Celtis laevigata	Sugarberry, Hackberry	native			AS
Ulmus americana	American Elm	native			CI
^Ulmus alata	Winged Elm	native			
Family: Urticaceae					
Boehmeria cylindrica	False nettle, Bog Hemp	native			S
Parietaria floridana	Florida Pellitory	native			S
Family: Verbenaceae					
^Lantana depressa	Rockland Shrub Verbena, Pineland Lantana	native		E	S
Lantana montevidensis	Trailing Shrubverbena	exotic			
Phyla nodiflora	Frogfruit, Turkey Tangle Frogfruit, Capeweed	native			S
Family: Vitaceae					
Ampelopsis arborea	Peppervine	native			S
Cissus verticillata	Possum Grape, Seasonvine	native			S
Parthenocissus quinquefolia	Virginia Creeper, Woodbine	native			S
Vitis aestivalis	Summer Grape	native			I
Vitis cinerea var. floridana	Florida Grape	native			S
Vitis shuttleworthii	Caloose Grape	native			S
Vitis rotundifolia	Muscadine	native			S
Family: Vittariaceae					
Vittaria lineata	Shoestring Fern	native			S
Family: Ximeniaceae					
Ximenia americana	Tallow Wood, Hog Plum	native			
Family: Zamiaceae					
^Zamia pumila	Florida Arrowroot, Coontie	native			

KEY

Florida EPPC Status

I = species that are invading and disrupting native plant communities

II = species that have shown a potential to disrupt native plant communities

FDACS (Florida Department of Agriculture and Consumer Services)

E = Endangered

T = Threatened

CE = Commericially Exploited

IRC (Institute for Regional Conservation)

CI = Critically Imperiled

I = Imperiled

R = Rare

		Designated Status		
Scientific Name	**Common Name**	**FWC**	**FWS**	**FNAI**
AMPHIBIANS				
Family: Bufonidae (toads)				
Anaxyrus quercicus	Oak Toad			
Family: Eleutherodactylidae (rain frogs)				
Eleutherodactylus planirostris	greenhouse frog*			
Family: Hylinae (tree frogs and their allies)				
Osteopilus septentrionalis*	Cuban Treefrog*			
Acris crepitans	Cricket Frog			
Hyla cinerea	Green Treefrog			
Family: Microhylinae (narrowmouth toads)				
Gastrophryne carolinensis	Eastern Narrowmouth Toad			
Family: Ranidae (true frogs)				
Lithobates grylio	Pig Frog			
Lithobates sphenocephalus	Southern Leopard Frog			
REPTILES				
Family: Alligatoridae (alligator and caiman)				
Alligator mississippiensis	American Alligator	FT	T(SA)	G5/S4
Family: Colubridae (harmless egg-laying snakes)				
Drymarchon corals couperi	Eastern Indigo Snake	FT	T	G4T3/S3
Coluber constrictor priapus	Southern Black Racer			
Diadophis punctatus	Ring-necked Snake			
Elaphe guttata guttata	Red Rat Snake			
Elaphe obsoleta quadrivittata	Yellow Rat Snake			
Family: Elapidae (coral snakes)				
Micrurus fulvius	Coral Snake			
Family: Emydidae (box and water turtles)				
Terrapene carolina bauri	Florida Box Turtle			
Family: Kinostermidae (american mud and musk turtles)				
Kinosternon baurii	Striped Mud Turtle			G5T2/S2
Family: Polychrotidae (anoles)				
Anolis carolinensis	Green Anole			
Anolis Sagrei*	Brown Anole*			
Family: Scincidae (skinks)				
Eumeces inexpectatus	Southeastern Five-lined Skink			
Family: Teiidae (whiptails)				
Cnemidophorus sexlineatus	Six-lined Race Runner			
Family: Testudinidae (gopher tortoises)				
Gopherus polyphemus	Gopher Tortoise	T		G3/S3
Family: Viperidae (vipers)				
Agkistrodon piscivorus conanti	Florida Cottonmouth			
Crotalus adamanteus	Eastern Diamondback Rattlesnake			G4/S3
BIRDS				
Family: Accipitridae (hawks, kites, accipiters, harriers, eagles)				
Elanoides forficatus	Swallow-tailed Kite			G5/S2
Haliaeetus leucocephalus	Bald Eagle			
Accipiter cooperii	Cooper's Hawk			G5/S3
Buteo lineatus	Red-shouldered Hawk			
Buteo jamaicensis	Red-tailed Hawk			
Family: Anatidae				
Dendrocygna autumnalis	Black-bellied whistling duck			
Family: Anhingidae (darters)				
Anhinga anhinga	Anhinga			
Family: Aramidae (limpkins)				
Aramus guarauna	Limpkin			G5/S3
Family: Ardeidae (herons, egrets, bitterns)				
Egretta caerulea	Little Blue Heron	T		G5/S4
Egretta tricolor	Tricolored Heron	T		G5/S4
Bubulcus ibis	Cattle Egret			
Butorides virescens	Green Heron			
Family: Bombycillidae (waxwings)				
Bombycilla cedrorum	Cedar Waxwing			
Family: Caprimulgidae (nightjars)				
Caprimulgus vociferus	Eastern Whip-poor-will			
Family: Cardinalidae (cardinals, some grosbeaks, new world buntings, etc.)				
Cardinalis cardinalis	Northern Cardinal			
Passerina ciris	Painted Bunting			
Family: Cathartidae (new world vultures)				
Coragyps atratus	Black Vulture			
Cathartes aura	Turkey Vulture			
Family: Charadriidae (plovers)				
Charadrius vociferus	Killdeer			
Family: Ciconiidae (storks)				
Mycteria americana	Wood Stork	FT	T	G4/S2
Family: Columbidae (pigeons and doves)				

Zenaida macroura	Mourning Dove			
Columbina passerina	Common Ground-Dove			
Family: Corvidae (crows, jays, etc.)				
Cyanocitta cristata	Blue Jay			
Aphelocoma coerulescens	Florida Scrub-Jay	FT	T	G2/S2
Corvus brachyrhynchos	American Crow			
Corvus ossifragus	Fish Crow			
Family: Cuculidae (cuckoos)				
Coccyzus americanus	Yellow-billed Cuckoo			
Family: Emberizidae (sparrows and their allies)				
Pipilo erythrophthalmus	Eastern Towhee			
Family: Falconidae (falcons)				
Polyborus plancus audubonii (Caracara cheriway)	Audubon's Crested Caracara			
Falco sparverius paulus	Southeastern American Kestrel	T		G5/S3
Falco peregrinus	Peregrine Falcon			
Family: Hirundinidae (swallows)				
Progne subis	Purple Martin			
Tachycineta bicolor	Tree Swallow			
Hirundo rustica	Barn Swallow			
Family: Icteridae (blackbirds, orioles, etc.)				
Agelaius phoeniceus	Red-winged Blackbird			
Sturnella magna	Eastern Meadowlark			
Quiscalus quiscula	Common Grackle			
Family: Laniidae (shrikes)				
Lanius ludovicianus	Loggerhead Shrike			
Family: Laridae (gulls)				
Leucophaeus atricilla	Laughing Gull			
Sternula antillarum	Least Tern	T	E	G4/S3
Family: Mimidae (mockingbirds and thrashers)				
Dumetella carolinensis	Gray Catbird			
Mimus polyglottos	Northern Mockingbird			
Toxostoma rufum	Brown Thraser			
Family: Odontophoridae (new world quails)				
Colinus virginianus	Northern Bobwhite			
Family: Pandionidae (ospreys)				
Pandion haliaetus	Osprey			G5/S3S4
Family: Paridae (tits, chickadees, and titmice)				
Poecile carolinensis	Carolina Chickadee			
Baeolophus bicolor	Tufted Titmouse			
Family: Parulidae (wood-warblers)				
Oreothlypis peregrina	Tennessee Warbler			
Parula americana	Northern Parula			
Dendroica coronata	Yellow-rumped Warbler			
Dendroica virens	Black-throated Green Warbler			
Dendroica dominica	Yellow-throated Warbler			
Dendroica pinus	Pine Warbler			
Dendroica discolor	Prairie Warbler			
Dendroica palmarum	Palm Warbler			
Mniotilta varia	Black-and-white Warbler			
Setophaga ruticilla	American Redstart			
Seiurus aurocapilla	Ovenbird			
Geothlypis trichas	Common Yellowthroat			
Family: Phasianidae (pheasant, grouse, turkeys, and their allies)				
Meleagris gallopavo	Wild Turkey			
Family: Picidae (woodpeckers)				
Melanerpes erythrocephalus	Red-headed Woodpecker			
Melanerpes carolinus	Red-bellied Woodpecker			
Sphyrapicus varius	Yellow-bellied Sapsucker			
Picoides pubescens	Downy Woodpecker			
Picoides villosus	Hairy Woodpecker			
Colaptes auratus	Northern Flicker			
Dryocopus pileatus	Pileated Woodpecker			
Family: Polioptilidae (gnatcatchers)				
Polioptila caerulea	Blue-gray Gnatcatcher			
Family: Rallidae (rails)				
Gallinula chloropus	Common moorhen			
Family: Regulidae (kinglets)				
Regulus calendula	Ruby-crowned Kinglet			
Family: Strigidae (true owls)				
Megascops asio	Eastern Screech-Owl			
Strix varia	Barred Owl			
Family: Threskiornithidae (ibises and spoonbills)				
Eudocimus albus	White Ibis			G5/S4
Family: Trochilidae (hummingbirds)				
Archilochus colubris	Ruby-throated Hummingbird			

Family: Troglodytidae (wrens)				
Thryothorus ludovicianus	Carolina Wren			
Troglodytes aedon	House Wren			
Family: Turdidae (thrushes)				
Catharus guttatus	Hermit Thrush			
Turdus migratorius	American Robin			
Family: Tyrannidae (tyrant flycatchers)				
Sayornis phoebe	Eastern Phoebe			
Myiarchus crinitus	Great Crested Flycatcher			
Family: Tytonidae (barn-owls)				
Tyto alba	Barn Owl			
Family: Vireonidae (vireos)				
Vireo griseus	White-eyed Vireo			
Vireo solitarius	Blue-headed Vireo			
MAMMALS				
Family: Canidae (wolves and foxes)				
Vulpes vulpes	Red Fox			
Family: Cricetidae (rodents)				
Sigmodon hispidus	Hispid Cotton Rat			
Family: Dasypodidae (armadillos)				
Dasypus novemcinctus*	Nine-banded Armadillo*			
Family: Didelphidae (opossums)				
Didelphis virginiana	Virginia Opossum			
Family: Felidae (cats)				
Puma concolor coryi	Florida Panther	FE	E	G5T1/S1
Lynx rufus	Bobcat			
Family: Leporidae (rabbits and hares)				
Sylvilagus floridanus	Eastern Cottontail Rabbit			
Sylvilagus palustris	Marsh Rabbit			
Family: Mustelidae (weasels, badgers, otters, ferrets, etc.)				
Lutra canadensis	River Otter			
Family: Procyonidae (raccoons)				
Procyon lotor	Raccoon			
Family: Sciuridae (squirrels and their allies)				
Sciurus carolinensis	Eastern Gray Squirrel			
Sciurus niger shermani	Sherman's Fox Squirrel	SSC		G5T5/S3
Family: Suidae (old world swine)				
Sus scrofa*	Feral Hog, Wild Boar*			
Family: Talpidae (moles and their allies)				
Scalopus aquaticus	Eastern Mole			
Family: Ursidae (bears)				
Ursus americanus floridanus	Florida Black Bear			G5T2/S2

KEY:

FWC = Florida Fish & Wildlife Conservation Commission
FWS = U.S. Fish & Wildlife Service
E - Endangered
T - Threatened
T(SA) - Threatened by Similar Appearance
SSC - Species of Special Concern

FNAI = Florida Natural Areas Inventory
G - Global rarity of the species
S - State rarity of the species
T - Subspecies of special population
1 - Critically imperiled
2 - Imperiled
3 - Rare, restricted or otherwise vulnerable to extinction
4 - Apparently secure
5 - Demonstratebly secure

***= Non-native**

Florida
Natural Areas
Inventory

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November 8, 2022

Emily Gear
Parks and Recreation
Lee County
3410 Palm Beach Blvd
Fort Myers, FL 33916

Dear Ms. Gear,

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

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

Project: Caloosahatchee Regional Park

Date Received: 11/2/2022

Location: Lee County

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

Element Occurrences

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

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

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

Likely and Potential Rare Species

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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

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

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

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

CLIP

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

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

Managed Areas

Portions of the site appear to be located within the Caloosahatchee Regional Park, managed by Lee County.

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

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

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

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

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

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

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl

Florida Natural Areas Inventory
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www.fnai.org

Caloosahatchee Regional Park

Site boundaries are approximate.

Lee County

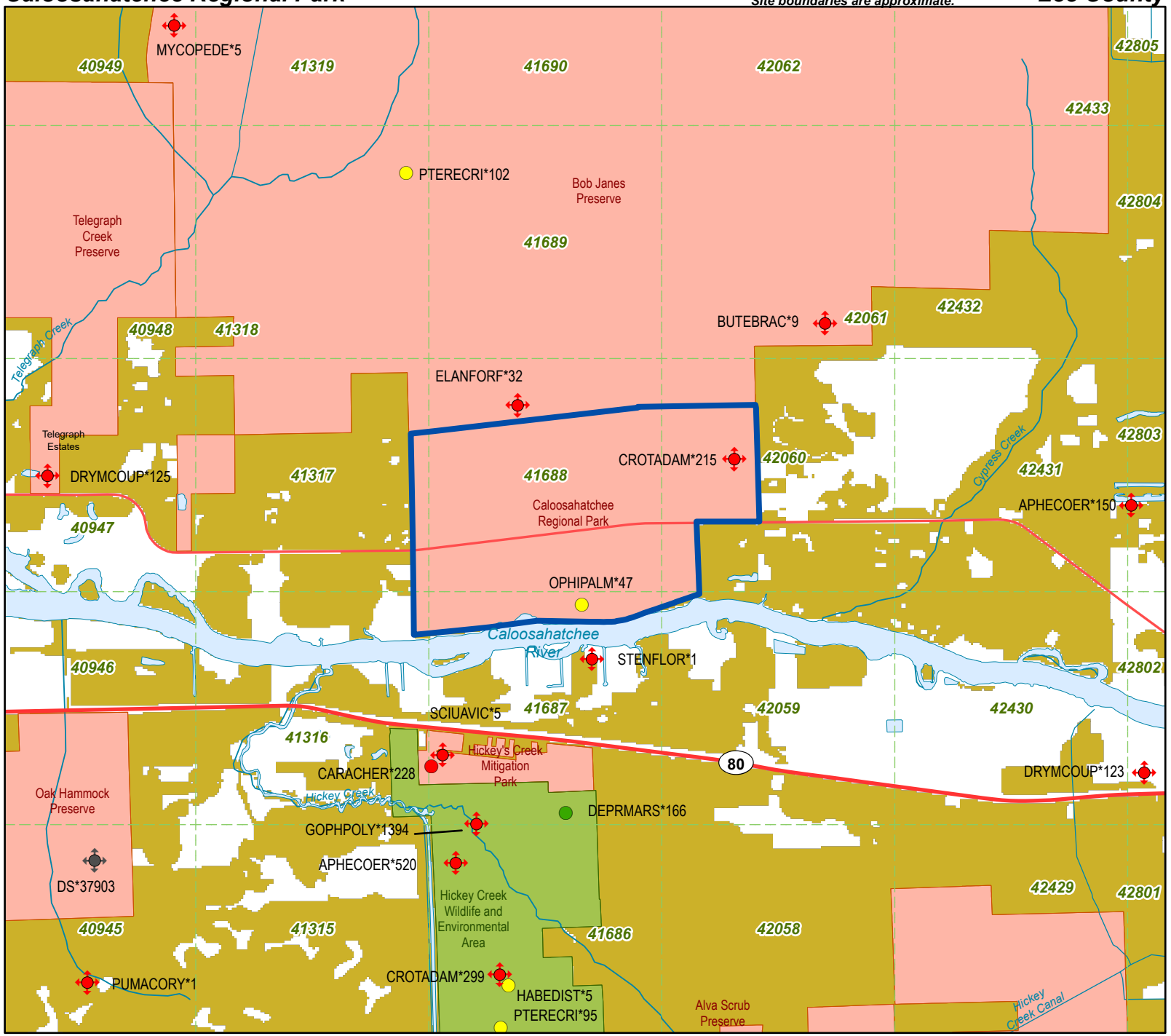
Element Occurrences
- Animals
- Plants
- Communities
- Other
- Data Sensitive

Point Indicates General Vicinity of Element

Conservation Lands
- Federal
- State
- Local
- Private
- State Aquatic Preserves

Land Acquisition Projects
- Florida Forever Board of Trustees Projects

- FNAI Rare Species Habitat
- FNAI Biodiversity Matrix Square Mile Units
- County Boundary
- Roads
- Water



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

Map produced by KAB
11/8/2022

Caloosahatchee Regional Park

Site boundaries are approximate.

Lee County

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Florida Natural Areas Inventory

CLIP v4.0 Resource Priorities

Biodiversity Resource Category

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

Landscape Resource Category

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

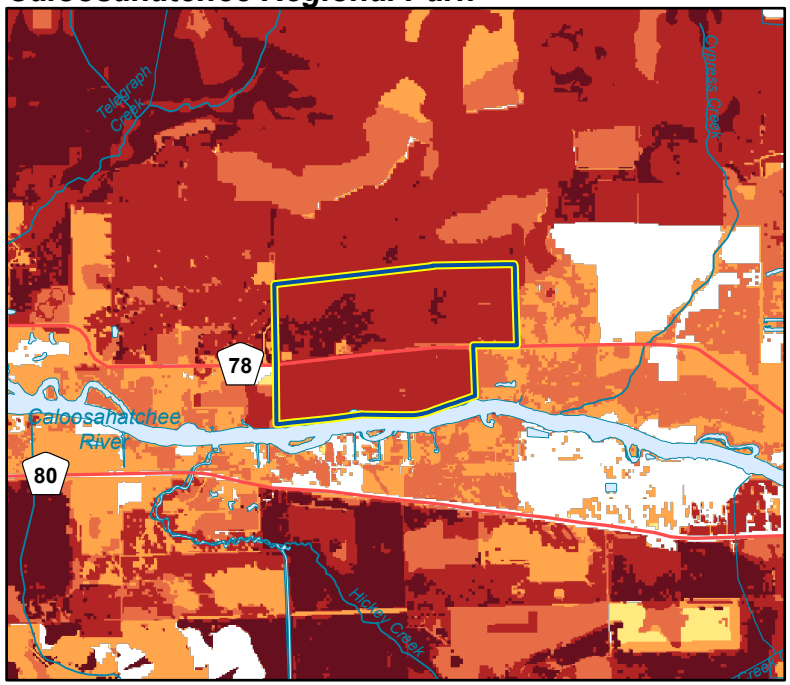
Surface Water Resource Category

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

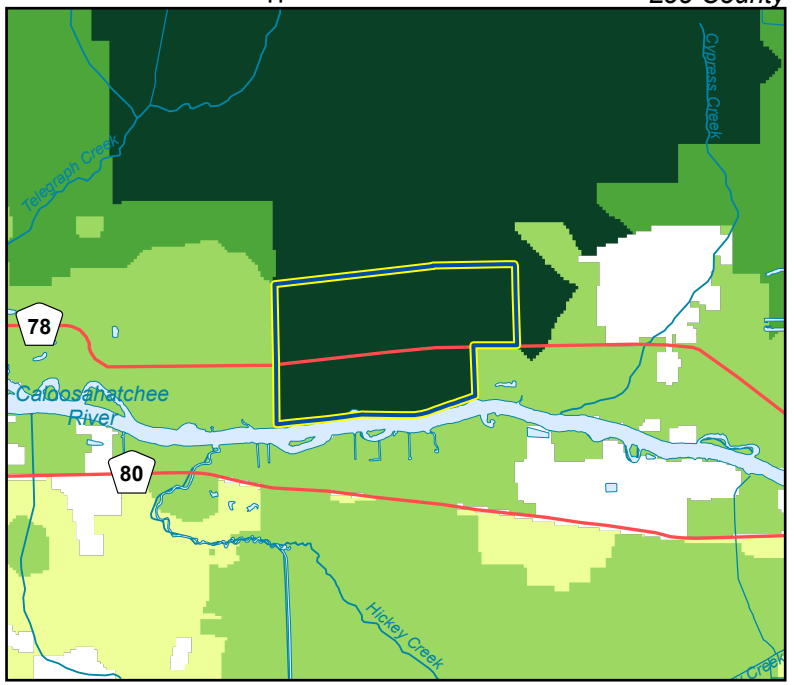
Aggregated CLIP Priorities

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

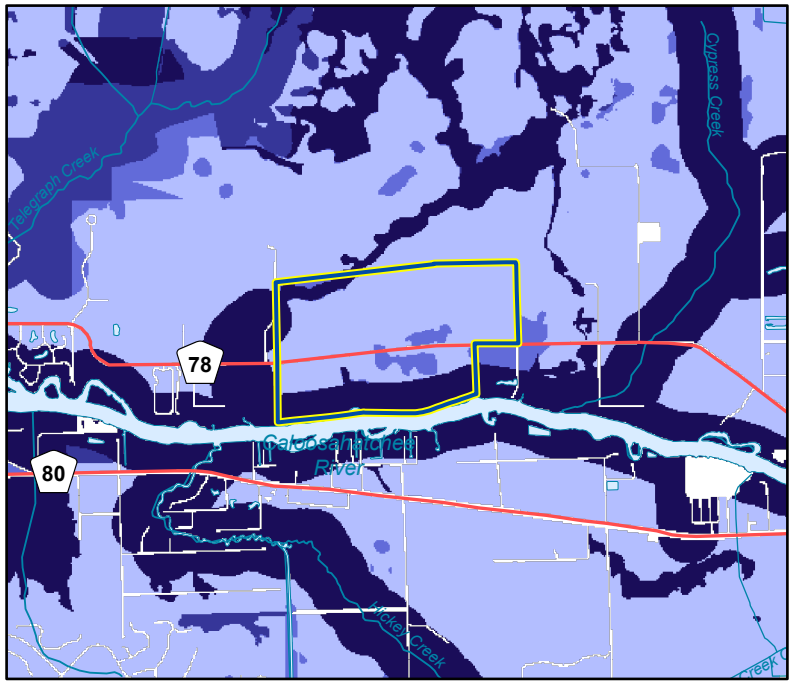
Map should not be interpreted without accompanying documents.



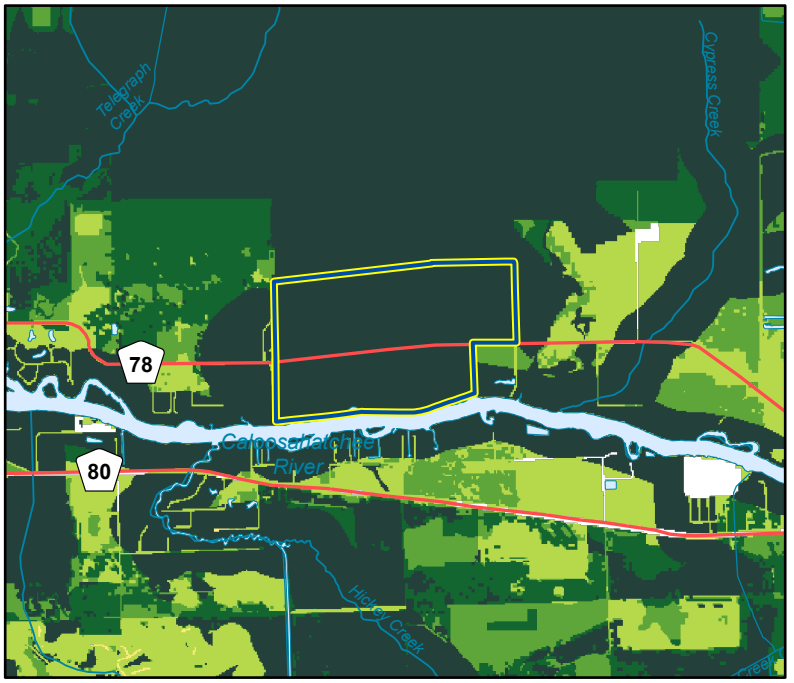
CLIP Biodiversity Resource Priorities



CLIP Landscape Resource Priorities



CLIP Surface Water Resource Priorities



CLIP Aggregated Resource Priorities

0 0.5 1 2 3 4 Miles

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

Map produced by KAB
11/8/2022

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Florida Natural Areas Inventory

FNAI ELEMENT OCCURRENCE REPORT on or near

Caloosahatchee Regional Park

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
APHECOER*520	*Aphelocoma coerulescens*	Florida Scrub-Jay	G1G2	S1S2	T	FT	2020 -- 2021	Hickey Creek Mitigation Park and WEA consists of scrubby and mesic flatwoods; adjacent areas are more ruderal in nature and development to the south and west.	2 groups with 5 birds total in 2021 (U21FWC01FLUS). The statewide mapping project noted 9 jays in 5 groups in the early 1990s (U97PRA01FLUS, U94FIT02FLUS); in 2006, 11 jays in 4 families were recorded (U06SHA01FLUS); additional observations have been documented in 2007 (F07RUS03FLUS) and 2010 (UNDLEE01FLUS) but no formal survey was undertaken from 2006 until JayWatch in 2015.
BUTEBRAC*9	*Buteo brachyurus*	Short-tailed Hawk	G4G5	S1	N	N	2008-05-14	2008: mesic/wet flatwoods, strand swamp, basin/depression marsh, pasture, and fallow and active agricultural fields (F08FNA04FLUS).	2007--2008: Eight observations of the birds flying throughout the northern part of Babcock Ranch Preserve and Bob Janes Preserve (former Lee County portion of BRP); several observed carrying prey (F08FNA04FLUS). 1991-05-02: M.S. Robson, GFC, observed 1 adult (U97GFC02FLUS).
CARACHER*228	*Caracara cheriway*	Crested Caracara	G5	S2	T	FT	2008-03-07	Pasture area grazed with small number of cattle; scattered wax myrtle and cabbage palms, surrounding parkland mix of oaks along creek and fairly open pine flatwoods (U08GRE02FLUS).	2008-03-07: Crested caracara observed perched and flying (U08GRE02FLUS, PNDGRE03FLUS).
CROTADAM*215	*Crotalus adamanteus*	Eastern Diamondback Rattlesnake	G3	S3	N	N	2007-10-16pre	No general description given	2007-10-16pre: one adult diamondback was observed (PNDEAS02FLUS). 1995pre: snake observed by Jim Beever (M95MAR01FLUS).
CROTADAM*299	*Crotalus adamanteus*	Eastern Diamondback Rattlesnake	G3	S3	N	N	2003	2003: mosaic of pinelands and variety of wetlands (PNDJAC01FLUS).	2003, probably March: L. Greeno (PNDGRE01FLUS) observed adult along trail or park road within management area. Species probably not common within county-managed portion of parks, as this was the first observation known to the park manager in the 4.5 years he had been there (U03GRE01FLUS).
DEPRMARS*166	Depression marsh		G4	S4	N	N	2004	2003: high quality marsh subject to seasonal filling and drying; surrounding pinelands managed with prescribed fire (PNDJAC01FLUS).	2004: extant from aerial photography. 2003: D. Jackson observed marsh and set traps for gopher frogs (none caught) in surrounding pineland (PNDJAC01FLUS).

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Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
DRYMCOUP*125	*Drymarchon couperi*	Eastern Indigo Snake	G3	S2?	T	FT	1980 pre	2005-09-21: Xeric habitats mostly converted to agricultural lands (pasture) and residential development; lower lands though, such as wet flatwoods, remain large and abundant (PNDJEN04FLUS).	2005-09-21: M. Jenkins (PNDJEN04FLUS) visited site, observed no snakes but made habitat notes (see General Description). POST-1970: T. CRUTCHFIELD OBSERVED INDIGO SNAKE (P. MOLER INTERVIEW OF 3 NOV 1981: U82MOL01FLUS).
DRYMCOUP*498	*Drymarchon couperi*	Eastern Indigo Snake	G3	S2?	T	FT	2012-11-04	State and county managed areas. 2012-11-04: snake observed by Young was in palmettos near North Marsh; described by Young as area of extensive upland pine flatwoods (slash pine and palmetto as dominants) on border of depression marsh (U12YOU01FLUS). 200	2012-11-04: R. Young observed fairly large (not full size) indigo snake, took marginal photo but saw red on head (U12YOU01FLUS, PNDYOU06FLUS, U12KAR01FLUS). 2005: L. Greeno (PNDGRE03FLUS) reported observation of individual (U05GRE01FLUS).
ELANFORF*32	*Elanoides forficatus*	Swallow-tailed Kite	G5	S2	N	N	2007-03-29	Strand swamp	A nest was documented in 1991 (U97GFC02FLUS). A mating pair was observed in 2007 (PNDSUR01FLUS)
GOPHPOLY*1394	*Gopherus polyphemus*	Gopher Tortoise	G3	S3	C	ST	2017	Scrubby and dry flatwoods in a matrix of mesic flatwoods	2016-11: FNAI LTDS gopher tortoise survey. 224 burrows scoped: 74 occupied; 147 unoccupied; 3 undetermined. Estimated population size of 165 gopher tortoises and an estimated density of 0.997 tortoises per hectare (F16FNA13FLUS). 2001-12-17: FNAI scoped 13 active, 37 inactive, and 6 abandoned burrows resulting in 8 tortoise observations at four concentration areas (F02FNA02FLUS).
OPHIPALM*47	*Ophioglossum palmatum*	hand fern	G4	S2	N	E	2005-09-20	2005-09-20: On cabbage palm in oak hammock (U05GRE02FLUS).	2005-09-20: 3 individuals in leaf observed on cabbage palm (U05GRE02FLUS).
PTERECRI*102	*Pteroglossaspis ecristata*	giant orchid	G2G3	S2	N	T	2007-10-22	2007-10-22: Mesic flatwoods lightly disturbed by forestry operations and cattle (F08FNA04FLUS).	2007-10-22: 1-10 plants in fruit within 10-100 square meters (F08FNA04FLUS).
PTERECRI*95	*Pteroglossaspis ecristata*	giant orchid	G2G3	S2	N	T	2018-09-18	Mesic and scrubby flatwoods and ruderal sites	Plants have been found at several widely scattered locations in 2008, 2013, 2016, and 2018. Very few individuals seen.

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Florida Natural Areas Inventory

FNAI ELEMENT OCCURRENCE REPORT on or near

Caloosahatchee Regional Park

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
PUMACORY*1	*Puma concolor coryi*	Florida Panther	G5T1	S1	E	FE	2018-02-27	1990: part of Big Cypress Swamp, includes several water courses, numerous ponds and low "uplands". Diverse habitats include wet and dry prairie, cypress forest (logged), mixed pines, mixed hardwoods; seasonally flooded (PNDMAE01FLUS).	1941-12-14: 1 specimen collected by Ross Allen, no date given, FSM #14699; specimen (FSM #12004) from 14-18 miles southeast of Immokalee, collected by Paul B. Welch (Weiland Welch Ranch). 1979-12-23: road kill from 200 yards north of Alligator Alley (FSM #11915) collected by Frank Weed, Sr. 1980-02-07: road kill from 1 mile south of Sunniland, SR-29, collected by FGFWFC (FSM #11927). 1990: 13 panthers within EO were radio-collared and monitored during 1989 and 1990 by Maehr (U90MAE01FLUS)--panthers in other occurrences also collared. Museum specimens. 2007-04-15: Panthers walked in cement and left tracks on bridge. Prints of both male and female and kitten tracks. Not mapped due to locational uncertainty. 2012: Estimated population size is between 100 and 160 adult and subadult individuals (U12FWC01FLUS). 2018-02-26: one adult and two tracks observed (F18FNA18FLUS).
SCIUAVIC*5	*Sciurus niger avicennia*	Big Cypress Fox Squirrel	G5T2	S2	N	ST	2005	2005: Pine forest adjacent to clearing (U05GRE01FLUS and 2004 aerial photograph).	2005: L. Greeno (PNDGRE03FLUS) reported observation of individual moving across the pasture U05GRE01FLUS).
STENFLOR*1	*Stenacron floridense*	A Mayfly	G3G4	S3S4	N	N	2008-10-29	2008-10-29: No description given (U09DEP01FLUS).	2008-10-29: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).

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Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Matrix Unit ID: 41316					
Documented					
Puma concolor coryi	Florida Panther	G5T1	S1	E	FE
Likely					
Aphelocoma coerulescens	Florida Scrub-Jay	G2?	S1S2	T	FT
Caracara cheriway	Crested Caracara	G5	S2	T	FT
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	T	FT
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Scrub		G2	S2	N	N
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Rostrhamus sociabilis	Snail Kite	G4G5	S2	E	FE
Schizachyrium niveum	scrub bluestem	G1G2	S1S2	N	E
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Trichechus manatus latirostris	Florida Manatee	G2G3T2	S2S3	T	N
Matrix Unit ID: 41317					
Likely					
Caracara cheriway	Crested Caracara	G5	S2	T	FT
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Elanoides forficatus	Swallow-tailed Kite	G5	S2	N	N
Mesic flatwoods		G4	S4	N	N

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Florida Natural Areas Inventory

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Mycteria americana	Wood Stork	G4	S2	T	FT
Puma concolor coryi	Florida Panther	G5T1	S1	E	FE
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N
Potential					
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Aphelocoma coerulescens	Florida Scrub-Jay	G2?	S1S2	T	FT
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Rostrhamus sociabilis	Snail Kite	G4G5	S2	E	FE
Schizachyrium niveum	scrub bluestem	G1G2	S1S2	N	E
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Matrix Unit ID: 41687					
Documented					
Depression marsh		G4	S4	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Ophioglossum palmatum	hand fern	G4	S2	N	E
Pteroglossaspis ecristata	giant orchid	G2G3	S2	N	T
Puma concolor coryi	Florida Panther	G5T1	S1	E	FE
Stenacron floridense	A Mayfly	G3G4	S3S4	N	N
Likely					
Aphelocoma coerulescens	Florida Scrub-Jay	G2?	S1S2	T	FT
Caracara cheriway	Crested Caracara	G5	S2	T	FT
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	T	FT
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST

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Scrub		G2	S2	N	N
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N
Potential					
Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Rostrhamus sociabilis	Snail Kite	G4G5	S2	E	FE
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Trichechus manatus latirostris	Florida Manatee	G2G3T2	S2S3	T	N
Matrix Unit ID: 41688					
Likely					
Caracara cheriway	Crested Caracara	G5	S2	T	FT
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Elanoides forficatus	Swallow-tailed Kite	G5	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	T	FT
Puma concolor coryi	Florida Panther	G5T1	S1	E	FE
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N
Potential					
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE

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Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N

Matrix Unit ID: 42059

Documented

Puma concolor coryi	Florida Panther	G5T1	S1	E	FE

Likely

Caracara cheriway	Crested Caracara	G5	S2	T	FT
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	T	FT
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N

Potential

Acipenser oxyrinchus desotoi	Gulf Sturgeon	G3T2T3	S2?	T	FT
Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Elytraria caroliniensis var. angustifolia	narrow-leaved Carolina scalystem	G4T2	S2	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Litsea aestivalis	pondspice	G3?	S2	N	E
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N

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Biodiversity Matrix Report

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Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Rostrhamus sociabilis	Snail Kite	G4G5	S2	E	FE
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N
Trichechus manatus latirostris	Florida Manatee	G2G3T2	S2S3	T	N

Matrix Unit ID: 42060

Likely

Caracara cheriway	Crested Caracara	G5	S2	T	FT
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S2?	T	FT
Elanoides forficatus	Swallow-tailed Kite	G5	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork	G4	S2	T	FT
Puma concolor coryi	Florida Panther	G5T1	S1	E	FE
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N

Potential

Antigone canadensis pratensis	Florida Sandhill Crane	G5T2	S2	N	ST
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	ST
Blarina shermani	Sherman's Short-tailed Shrew	G1	S1	N	ST
Calopogon multiflorus	many-flowered grass-pink	G2G3	S2S3	N	T
Centrosema arenicola	sand butterfly pea	G2Q	S2	N	E
Coleataenia abscissa	cutthroatgrass	G3	S3	N	E
Deeringothamnus pulchellus	beautiful pawpaw	G1	S1	E	E
Dryobates borealis	Red-cockaded Woodpecker	G3	S2	E, PT	FE
Elytraria caroliniensis var. angustifolia	narrow-leaved Carolina scalystem	G4T2	S2	N	N
Eumops floridanus	Florida bonneted bat	G1	S1	E	FE
Gopherus polyphemus	Gopher Tortoise	G3	S3	C	ST
Lechea cernua	nodding pinweed	G3	S3	N	T
Linum carteri var. smallii	Small's flax	G2T2	S2	N	E
Lithobates capito	Gopher Frog	G2G3	S3	N	N
Matelea floridana	Florida spiny-pod	G2	S2	N	E
Mustela frenata peninsulae	Florida Long-tailed Weasel	G5T3?	S3?	N	N
Nemastylis floridana	celestial lily	G2	S2	N	E
Neofiber alleni	Round-tailed Muskrat	G2	S2	N	N
Nolina atopocarpa	Florida beargrass	G3	S3	N	T
Peucaea aestivalis	Bachman's Sparrow	G3	S3	N	N
Salix floridana	Florida willow	G2G3	S2S3	N	E
Sciurus niger avicennia	Big Cypress Fox Squirrel	G5T2	S2	N	ST
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Setophaga discolor paludicola	Florida Prairie Warbler	G5T3	S3	N	N

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Florida Natural Areas Inventory

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Managed Area Element Summary

Caloosahatchee Regional Park

SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
PLANTS					
Ophioglossum palmatum	hand fern	G4	S2	N	E
REPTILES					
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G3	S3	N	N
MAMMALS					
Ursus americanus floridanus	Florida Black Bear	G5T4	S4	N	N

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

Elements and Element Occurrences

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

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

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

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

FNAI STATE ELEMENT RANK

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

FEDERAL LEGAL STATUS

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

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

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

STATE LEGAL STATUS

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

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

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

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

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

Element Occurrence Ranking

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

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

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

FNAI also uses the following EO ranks:

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

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

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

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

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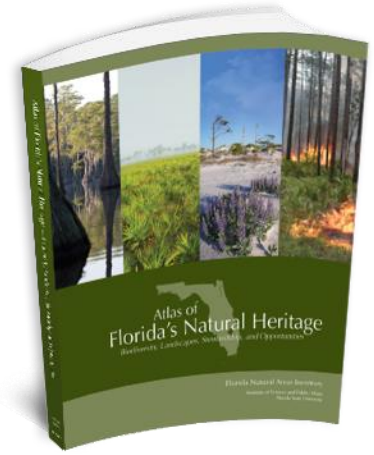

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LAWS OF FLORIDA
CHAPTER 98-461

AN ACT relating to the Lee County Mosquito Control District, an independent district; providing for a codified charter of its special acts in a single act and repealing all prior special acts relating to the Lee County Mosquito Control District as required by chapter 97-255, Laws of Florida; creating and establishing a mosquito control district in said county and excepting therefrom certain territory of said county and fixing the boundaries of said district; dividing said district into areas for the purpose of electing members of the board of commissioners; providing for the terms of office and qualifications of the members of the board of commissioners and providing the method and times of elections; prescribing the powers and duties of the board; setting the compensation of the board; providing for audit of books and time of meetings; providing procedure for adopting a budget; giving the board the power to tax and levy assessments for special benefits and providing the methods, procedure, and limitations thereon; authorizing the board to contract and cooperate with county, state, and other governmental agencies in regard to mosquito control or suppression; charging the Lee County Health Unit or Health Department with the responsibility with reference to mosquito control; determining the status of employees and providing a method by which such responsibility shall terminate and declaring the legislative policy with reference thereto; providing penalty for damage to property; providing that the records shall be filed in the public records for Lee County; providing limitations of actions; providing for the repeal of all special acts relating to the Lee County Mosquito Control District; granting to the district created herein such powers as are provided for mosquito control districts under the laws of Florida; providing for severability; providing that such act shall be construed liberally; providing an effective date.

Be it Enacted by the Legislature of the State of Florida:

Section 1. *Continuation of a mosquito control district* - There is hereby provided for the continuation of the Lee County Mosquito Control District, and independent special district, the boundaries of which shall include all territory of Lee County except the following described area:

DESCRIPTION

A tract or parcel of land lying parts of Township 46 South, Range 24 East and
Township 46 South, Range 24 East and part of Township 4 7 South, Range 24 East, Lee County, Florida, which tract or parcel, containing 14,615 acres more or less is described as follows:

BEGINNING at the southeast comer of Section 24, Township 46 South, Range 24 East, running westerly along the south line of said section for 2,700 feet more or less to the waters of Estero Bay;

THENCE run southwesterly along a northwesterly line across the waters of Estero Bay for 8,300 feet to a point of intersection;

THENCE run southerly along a westerly line across said Bay and Starvation Flats for 4,200 feet more or less to a point of intersection;

THENCE run southeasterly, southerly and southwesterly along a westerly line of said area running across said Bay and Big Carlos Pass for 10,000 feet more or less;

THENCE run northwesterly across Big Carlos Pass and along the shoreline of Estero Island for 6, I 00 feet more or less to a point of intersection;

THENCE continue northwesterly along said shoreline for 3,200 feet more or less to a point of intersection;

THENCE continue along said shoreline northwesterly for 22,800 feet more or less to a point of intersection;

THENCE run northwesterly along said shoreline for 3,900 feet more or less to a point of intersection;

THENCE run northwesterly along said shoreline and across San Carlos Bay for 8,000 feet more or less to the intersection of a westerly prolongation of the north line of Section 13, Township 46 South, Range 23 East and the waters of San Carlos Bay;

THENCE run easterly along said prolongation and said north line and the north line of Section 18, 17, 16, 15, 14, and 13 to the northeast comer of said Section 13, Township 46 South, Range 24 East;

THENCE run southerly along the easterly line of said Section 13 and Section 24,
Township 46 South, Range 24 East, for 10,600 feet more or less to the Point of Beginning.

Section 2. *Division of district into areas* - The Board of Commissioners of the Lee County Mosquito Control District shall divide the district into seven residential areas for the purpose of selecting members of the board of commissioners. From the 1990 Federal Census and every IO years thereafter, the board of commissioners shall reestablish area boundaries so that all areas are as nearly equal in population as practicable based on the most recent decennial census.

Section 3. *Board of commissioners; qualification; election; term of office* –

(1) The business and affairs of the Lee County Mosquito Control District shall be governed by a board of seven commissioners, who shall constitute the Lee County Mosquito Control Board, hereinafter referred to as the board.

(2) Each board member shall be a qualified elector residing within the area from which elected; shall serve staggered terms of 4 years, unless removed for cause by the Governor; and shall be entitled to receive per diem and mileage as provided by general law for expenses incurred while performing official duties.

(3) One member of the board shall be elected from each of the seven areas provided in Section 2. Each member shall be elected at large by a plurality vote of the qualified electors of the district voting in a nonpartisan election to be held on the date of the general election. Candidates for the office of commissioner shall qualify in accordance with general law. If the vote in the general election results in a tie, the outcome shall be determined by lot. The term of office shall commence on the second Tuesday following the election, but before assuming office, each commissioner shall make and execute to the Governor a good and sufficient surety bond in the amount of not less than $2,000 conditioned upon the faithful performance of the duties of his office, which bond shall be approved by and filed with the Clerk of the Circuit Court of Lee County. The expense of the bonds shall be borne by the district.

(4) Vacancies created by resignation, death, or removal from office shall be filled by appointment of the Governor for the remainder of the term of office.

(5) This act shall not affect the terms of the members serving on the board when this act takes effect except that the term of each member shall expire in November of the year in which his successor is to be elected. Any such members whose terms do not expire in November 1984 shall serve for the remainder of their terms, as shortened by this act, and shall represent the area in which they reside.

Section 4. *Election; ballots* - The Board of County Commissioners of Lee County shall make the necessary arrangements for setting up the elections of the board of commissioners of the mosquito control district and shall supply the necessary ballots and do all other things necessary for said elections. The provisions of section 1(1)(a) of chapter 81-414, Laws of Florida, relating to elections in odd-numbered years shall not apply to the Lee County Mosquito Control District.

Section 5. *Powers and duties of the board of commissioners* –

(1) The board of commissioners may do any and all things necessary for the control and elimination of all species of mosquitoes and other arthropods of public health importance, either in the district, or in territory not in the district, but within 5 miles of district boundaries, and so situated with respect to the district that such mosquitoes or arthropods from such territory may disperse into the district. The board is authorized to use any and all mechanical, physical, chemical, or biological control measures that the board may deem necessary to accomplish the purposes of this chapter. Should the owner of record of lands upon which mosquito or other arthropod breeding occurs advise the board of commissioners that said owner prefers that the district not implement control measures upon that property, the board is empowered to enter into an agreement whereby the owner of the property will eliminate or control such mosquito or other arthropod breeding, in a manner approved by the board, and at the expense of the owner. Should the board of commissioners have reason to believe that mosquito or other arthropod breeding on such property is not effectively eliminated or controlled by the owner of the property, the board shall present information to the Director of the Lee County Health Department indicating

a belief that a mosquito problem exists on said lands, which, if not eliminated or controlled, would adversely affect nearby properties or residents. If the Director of the Lee County Health Department concurs, he shall issue an order, in writing, authorizing the board of commissioners to take such action as it may deem necessary. Upon issuance of any order by the Director of the Lee County Health Department, the board of commissioners and its agents or employees are specifically authorized to enter without hindrance upon such lands for the purpose of inspections to ascertain whether breeding places of mosquitoes or other arthropods exist upon such lands; to abate such public nuisances in accordance with this chapter; or to ascertain if notices to abate the breeding of mosquitoes or other arthropods upon such lands have been complied with.

(2) The board of commissioners shall have all the powers of a body corporate including the power to sue and be sued as a corporation in said name in any court; to contract; to adopt and use a common seal and alter the same at pleasure; to purchase, hold, lease, and convey such real estate and personal property as the board may deem proper to carry out the purposes of this law; to prescribe rules and regulations for the marking of such property; to secure letters of patent, copyrights, and trademarks, both foreign and domestic, on any work products, and to enforce its rights therein; to operate airports and air navigation facilities within the district's boundaries in accordance with chapter 332, Florida Statutes; to employ such experts, agents, and employees as the board may require; to provide uniforms for district employees; to participate with employees in a family group insurance plan, to contract and cooperate with county, state, and other governmental agencies in regard to mosquito control or suppression; to borrow money in conformance with constitutional provisions and general law in an amount not to exceed $1 on each $1,000 of, assessed valuation of property in the district for a period of time not to exceed 1 year, and to issue negotiable promissory notes and bonds in an amount not to exceed $1 on each $1,000 of assessed valuation of property in the district, to enable it to carry out the provisions of this law. The board of commissioners is authorized to loan moneys to the Lee County Hyacinth Control District by a transfer of funds between accounts, provided that such loans or transfers shall be repaid within the fiscal year in which they are made.

Section 6. *Organization of the board* - As soon as is practicable after the commissioners have been appointed or elected and have qualified, they shall meet and organize by electing one of their members as chair, one as vice chair, and one as secretary treasurer. In all meetings four members shall be necessary to transact business.

Section 7. *Salary of the board* -The commissioners under this chapter may receive compensation as authorized by s. 388.141, Florida Statutes, for services pertaining to mosquito control work.

Section 8. *Audit* - The books and accounts of said mosquito control district shall be audited annually by the same officers and in like manner as the books of other county officers, or, at the discretion of the board, by a certified public accountant selected by the board.

Section 9. *Breeding places* -

(1) Any breeding place for any species of mosquitoes, or any other arthropod of public health importance, which exists by reason of any use made of the land on which it is found, or of any artificial change in its natural condition, is hereby declared to be a public nuisance. Such nuisance may be abated as provided by this chapter or by any other Jaw.

(2) Whenever a nuisance specified in this chapter exists upon any property in the district, the board of commissioners may notify in writing the owner of the party in possession, or the agent of either, of the existence of the nuisance. The notice shall state the finding of the district that a public nuisance exists on the property and the approximate location of such nuisance on such property. The notice shall be served upon the owner of record, or the person having possession, or upon the agent of either. The notice shall be served by any person authorized by the board in the same manner as a court summons in a civil action. If the property belongs to a person who is not a resident of the district, and is not in charge or possession of any person, and there is no tenant or agent of the owner upon whom service can be made, who can after diligent search be found; or if the owner of the property can after diligent search be found, the notice shall be served by posting a copy in a conspicuous place upon the property for a period of 10 days, and by mailing a copy to the owner addressed to his address as given on the last completed assessment roll of the county in which the property is situated, or, in the absence of an address on the roll, to his last known address. Before complying with the requirements of the notice the owner or party in possession may appear at a hearing before the board at a time and place fixed by the board and stated in the notice. At the hearing, the district board shall determine whether the initial finding as set forth in the notice is correct and shall permit the owner or party in possession to present testimony in his behalf. If, after hearing all the facts, the board makes a determination that a nuisance exists on the property, the board shall order compliance with the requirements of the notice or with alternate instructions issued by the board.

(3) Any recurrence of the nuisance may be deemed to be a continuation of the original nuisance.

(4) In the event that the nuisance is not abated within the time specified in the notice or at the hearing, by appropriate measures to eliminate continuance or to prevent its recurrence, the board of commissioners may abate the nuisance by taking any measures it deems appropriate to prevent the recurrence of further breeding. The cost of abatement of a nuisance under this section shall be repaid to the district by the owner of the property.

(5) When any nuisance specified in this chapter is found to exist on any lands or property subject to the control of any public agency, the district shall notify the public agency of the existence of the nuisance. The provisions of this section relating to the contents of the notice, the manner of serving it, the right of the public agency to a hearing before the board, and the power of the district to abate the nuisance if it is not abated by the public agency, shall apply. If the public agency determines that the order to prevent recurrence of the breeding specified in the notice to abate the nuisance is excessive or inappropriate for the intended use of the land, or if the public agency determines that a public nuisance within the meaning of this chapter does not exist, such

public agency may appeal the decision of the board in accordance with "The State Agency Dispute Settlement Act of 1978." If the control of the nuisance is performed by the district, the cost for such control is a charge against, and shall be paid from, the maintenance fund or from any other funds budgeted for the support of the public agency.

(6) All sums expended by the district in abating a nuisance, or preventing its recurrence, shall become a lien upon the property on which the nuisance is abated, or its recurrence prevented.

Section 10. *Meetings* - The board of commissioners of the district shall hold monthly meetings which shall be open to the public. Reasonable expenses of members in attending meetings may be approved for payment by the board of commissioners.

Section 11. *Budget; hearings* - The fiscal year of Lee County Mosquito Control District shall be the 12-month period extending from October 1 each year through September 30 of the following year. The board shall prepare a tentative budget for the district covering its proposed operation and requirements for the ensuing fiscal year. The proposed budget shall be advertised, public hearings held, and a final budget adopted in accordance with the provisions of chapter 189, and ss. 200.065 and 218.34, Florida Statutes.

Section 12. *Eminent domain* - The board may hold control and acquire by gift or purchase any real or personal property for the use of the district and may condemn any land or easements needed to carry out the purposes of this act. The board may exercise the right of eminent domain and institute and maintain condemnation proceedings as provided in chapter 73, Florida Statutes.

Section 13. *Tax levy*-

(1) The board of commissioners of the mosquito control district may levy upon all of the taxable property in the district a special tax not exceeding 1 mill on the dollar during each year solely for the purposes authorized and prescribed by this act. The levy shall be made each year in accordance with chapter 200, Florida Statutes. The board of county commissioners shall order the property appraiser of the county to assess and the tax collector of the county to collect the amount of taxes so assessed and levied by the board of commissioners of said mosquito control district upon all of the taxable property in the district at the rate of taxation adopted by the board for the year and included in the resolution, and the levy shall be included in the warrants of the property appraiser, and attached to the assessment roll of taxes for the county each year. Fees shall be paid to the property appraiser and to the tax collector in accordance with law. The tax collector shall collect such taxes so levied by the board in the same manner as other taxes are collected and shall pay the same within the time and in the manner prescribed by law to the treasurer of the board. The Department of Revenue shall assess and levy on all the railroad lines and railroad property and telegraph and telephone lines and telegraph and telephone property situated in the county in the amount of each such levy as in the case of other state and county taxes, and collect the taxes thereon in the same manner as the department is required by law to assess and collect taxes for state and county purposes, and remit the same to the treasurer of the

board. All such taxes shall be held by the treasurer for the credit of the board and paid out as ordered by the board.

(2) The Legislature does determine that the eradication and control of mosquitoes within the district is of special benefit and constitutes a special improvement for the benefit of the district and the property located therein, and is therefore subject to assessment for special benefits and the board of commissioners of the district is authorized to levy upon all of the property in the district assessments for special benefits. However, the total amount of any such assessment levied under this subsection shall not exceed an amount equal to 1 mill on the dollar of the total valuation of the property so assessed and the total on any tax that might be levied under subsection (1) and the assessment for special benefits levied under this section shall not amount to a sum which would be in excess of an amount equal to 1 mill of the value of any such property.

Section 14. *Qualifications of director*; advertisement of contracts - All work done under the provisions of this act, both in construction and maintenance, shall be carried on under the supervision of an individual determined by the board to be well qualified to administer the programs authorized by this act. The board may have all work performed by contract with or without advertisement, or without contract, by machinery, equipment and labor employed directly by the board.

Section 15. *Penalty for damage to property* - Whoever shall willfully damage any of the property of the mosquito control district created under this act or any w constructed, maintained, or controlled by the mosquito control district or who shall obstruct or cause to be obstructed any of the operations of the mosquito control district taken under this chapter, shall be punished as provided by general law.

Section 16. *Dissolution of districts* - Three mosquito control districts in Lee County created under the provisions of chapters 388, 389, and 390, Florida Statutes, and known as Boca Grande District, the Sanibel-Captiva District, and the Fort Myers District have heretofore been abolished and dissolved, and are no longer in existence.

Section 17. *Transfer of assets and liabilities* - All assets, including equipment, moneys on hand, easements, and rights of any kind and nature belonging to the three above named districts, or the district created under chapter 65-1820, chapter 57-2059, and chapter 61-2394, Laws of Florida, together with all of the liabilities incurred by said districts are hereby assigned to and made property and obligation of the Lee County Mosquito Control District, provided that after the lapse of 6 months from May 15, 1961, no action shall be brought or instituted upon any bond, interest coupon, bond credit, certificate of indebtedness, note or any other debt, claim or liability outstanding, due, or owing by the Fort Myers Mosquito Control District, Boca Grande Mosquito Control District, and Sanibel-Captiva Mosquito Control District.

Section 18. *Books and records* - All books and records of the district shall become a part of the records of the district continued by this act.

Section 19. *Purpose* -The abatement and control of mosquitoes within Lee County is advisable and necessary for the maintenance and improvement of the health, comfort, welfare, and prosperity of the people thereof; and is found and declared to be for public health and other public purposes.

Section 20. *Responsibility; duties* - The Lee County Health Unit, also referred to and known as the Lee County Health Department, established by the board of county commissioners on June 7, 1950, is charged with the responsibility of abating or suppressing mosquitoes in Lee County. The director of said health unit or health department shall cause to be done any and all work and all things necessary for the control and elimination of mosquitoes in the county wherever such work is necessary and he is empowered to use such means, physical or chemical, as may be necessary to accomplish the objects of this act. All employees engaged in such work shall be considered employees of the Lee County Health Unit regardless of the fact that their salaries or wages are paid by the Board of Commissioners of the Lee County Mosquito
Control District, and regardless of the fact that the determination as to who is to be employed and the wages or salaries to be paid is made by the Board of Commissioners of the Lee County Mosquito Control District, and the records are kept by said board.

Section 21. *Alternate plan* - The purpose of section 20, is to coordinate certain activities between the Lee County Health Unit or Health Department and the Lee County Mosquito Control District in an effort to best serve the interest and welfare of the Lee County Mosquito Control District and the property owners and residents thereof. If the Board of Commissioners of the Lee County Mosquito Control District should make a study or, by reason of the experience in handling the affairs of said district, determine that it is not in the best interest of the Lee County Mosquito Control District and the property owners and residents thereof to continue in the Lee County Health Unit or Health Department the responsibilities, powers, duties, and authority and that the continuation of the responsibilities, powers, duties, and authority in such unit or department is not advantageous to the Lee County Mosquito Control District, it is declared to be the legislative intent that the Board of Commissioners of the Lee County Mosquito Control District may pass a resolution so determining and finding and, upon the passage of such resolution, any and all such powers, duties, responsibilities, and authority given to the Lee County Health Unit or Health Department shall immediately vest in the Lee County Mosquito Control District and the employees shall become the employees of the Lee County Mosquito Control District and the provisions of section 20 shall, insofar as they or any of them relate to Lee County Health Unit or Health Department, be of no further force and effect.

Section 22. All prior special acts relating to the Lee County Mosquito Control District are hereby repealed. They are chapters 57-1520, 57-2059, 61-2394, 63-1542, 65-1820, 65-1831, 67-1630, 72-598, 79-493, 82-316, 83-442, and 95-517, Laws of Florida. It is the intent that this act shall be the single act that codifies all prior special acts related to the Lee County Mosquito Control District upon this act becoming a Jaw.

Section 23. The district created by this act and the board of commissioners shall have the right to use any and all privileges or powers which are granted to mosquito control districts under the general laws of this state.

Section 24. It is declared to be the legislative intent that this act shall be construed liberally.

Section 25. It is declared to be the legislative intent that if any section, subsection, sentence, clause, or provision or part thereof of this act is held invalid, unenforceable or unconstitutional it shall not affect the remainder of the act and the remainder of the act shall remain in force and effect as if the invalid portion of the act had not been enacted.

Nothing in this act shall change existing law as to whether or the extent to which the provisions of Chapters 253,369,373,388, and 403, Florida Statutes, shall apply.

Section 26. This act shall take effect upon becoming a Jaw.

Became a law without the Governor's approval May 27, 1998.

Filed in Office Secretary of State May 26, 1998.

The Efficacy of Repeated Herbicide Applications on the Control of Guineagrass (*Panicum maximum*)

at Caloosahatchee Regional Park, Lee County Florida

By Annisa Karim, David Mitchell, Laura Estabrook Carr, and Kenneth Langeland

Introduction

It has become abundantly clear that not all plants are created equally. Some plants have evolved successfully to compete with other plants by developing high rates of growth and reproduction, and producing numerous seeds or fruits that are easily dispersed by wind, water, small mammals or birds. Even so, these plants are controlled in their native ranges by natural enemies such as herbivores, pests and diseases. However, when transported to new areas outside of their native range, some of these plants can outcompete the native plants and are said to be invasive. Florida has seen the introduction of non-native plants for decades. *In the early 1900s, botanist and naturalist, Charles Torrey Simpson, warned, "There are the adventive plants, the wanderers, of which we have, as yet, comparatively few species; but later, when the country is older and more generally cultivated, there will surely be an army of them." (Simpson 1920)*

Caloosahatchee Regional Park (CRP) in northeastern Lee County consists of approximately 768 acres on the north side of the Caloosahatchee River. The park is about 2 miles west of the town of Alva and is managed by the Lee County Department of Parks and Recreation (LCPR). The park is divided by County Road 78 (North River Road). The last time the Caloosahatchee River was dredged, much of the dredge spoil was deposited onto the north side of the park (portion of CRP north of County Road 78), resulting in a highly altered topographic and hydrologic area, and an atypical terrestrial substrate. This portion of CRP has proven to be a serious management problem.

The park contains a diversity of plant communities, many of which have been impacted by invasive plant species. One of the dominant invasive plants is guineagrass (*Panicum maximum*). *P. maximum* is a large, clump-forming panic grass native to Africa. It has been introduced to tropical areas world-wide for fodder and has invaded wetlands, roadsides and disturbed lands in many of these areas. Guineagrass is a weed in natural areas of Florida (designated as a Category

Of the approximately 25,000 non-native plants imported into Florida (most as ornamentals), more than 1,400 have escaped and become established outside of cultivation (Florida Exotic Pest Plant Council 2011). The Florida Exotic Pest Plant Council (FLEPPC) maintains a list of exotic plants that have been documented to (1) have adverse effects on Florida's biodiversity and plant communities, (2) cause habitat loss due to infestations and (3) impact endangered species via habitat loss and alteration. FLEPPC categorizes the most problematic of these species into two categories. Category I plants are those that alter native plant communities by displacing native species, change community structures or ecological functions, or hybridize with natives. Category II plants have increased in abundance or frequency but have not yet altered Florida plant communities to the extent shown by Category I species. Land stewards and managers charged with protecting, preserving and restoring Florida's remaining native plant communities on public and private lands have found themselves spending increasing amounts of time and money in an attempt to control invasive, exotic plant species.

Table 1. Herbicide mixtures used in this study and cost per acre (September 2012 values) (excluding application costs). All treatments contained 0.05% non-ionic surfactant.

Herbicide Mixture	Rate/Acre	Cost/Acre
Alligare Glyphosate 4 Plus	6 qt	$34.95
Clearcast	2 qt	$21.00
Pendulum	2.4 qt	$14.72
Sahara	19 lb	$117.12
Alligare Glyphosate 4 Plus + Pendulum	6 qt + 2.4	$49.67
Alligare Glyphosate 4 Plus + Sahara	6 qt + 19 lb	$152.07
Alligare Glyphosate 4 Plus + Pendulum + Sahara	6 qt + 2.4 qt + 19 lb	$166.79

Table 2. Characteristics of herbicide active ingredients used in this study.

Active ingredient	Absorption/Translocation (predominant)[1]	Mechanism of Action[1]	Product used in this study
diuron	Root/Upward	Photosynthesis inhibitor (PS II)	Sahara
glyphosate	Foliar/Downward	Aromatic amino acid inhibitor (EPSP synthase)	Alligare Glyphosate 4 Plus
imazamox	Foliar/Upward and downward	Branched chain amino acid inhibitor (ALS)	Clearcast
imazapyr	Foliar and root/Upward and downward	Branched chain amino acid inhibitor (ALS)	Sahara
pendimethalin	Root and emerging seed root/Not translocated	Inhibits cell division and thus root growth	Pendulum

[1]Weed Science Society of America. 2007. Herbicide Handbook, Ninth Edition. WSSA Lawrence, KS

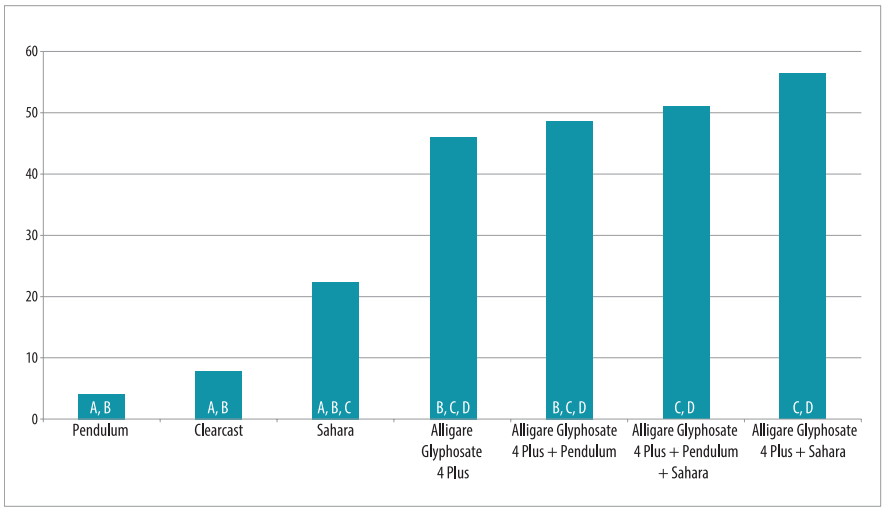

Figure 1. Percent control of guineagrass and Tukey's HSD post-hoc test results for each mixture tested (see Table 1 for rates per acre). Control is not significantly different among treatments with the same letter.

II invasive species by the Florida Exotic Pest Plant Council). It has been documented in 37 of Florida's 67 counties (Wunderlin and Hansen 2008) and is "commonly found as a weed in citrus groves and other disturbed and cultivated sites in the state" (Futch and Hall 2012).

On the north side of the park, guineagrass creates a monoculture over much of the dredge spoil from the river bottom. The south side (portion of CRP south of County Road 78) remains fairly intact with typical terrestrial soils, but continues to be impacted by invasive, exotic vegetation including guineagrass. Past land stewardship endeavors at CRP have resulted in minimal control of *P. maximum*. Traditional control methods included mowing the grass (if possible) and then spraying the re-growth at 6 to 8 inches in height with a 3% glyphosate (amino acid inhibitor) + 0.5% surfactant solution. While this method worked well in controlling plant matter above ground, the seeds of the guineagrass were not affected.

In an effort to maximize the efficiency of the herbicides, time and funds used to control guineagrass, LCPR staff partnered with the University of Florida's Institute of Food and Agricultural Sciences (UF/IFAS) to evaluate the efficacy of seven herbicide treatments (Table 1). Treatments included herbicide active ingredients with different modes of action (Table 2). Use of herbicides with different modes of action is important in preventing herbicide resistance in a management program. Herbicide resistance can develop in a weed population when herbicide sensitive plants are killed using repeat treatments with herbicides with the same mode of action. Some plants develop herbicide resistance and these plants will become dominant. "The single most important factor leading to the evolution of herbicide resistance is over-reliance on a single herbicide or group of herbicides with the same mode of action without using other weed management options" (Trujillo 2013).

Methods

An all terrain vehicle (ATV) equipped with a spray tank and spray boom was used to spray all plots. The sprayer was calibrated to deliver 50 gallons of solution per acre. All treatments contained 0.05% non-ionic surfactant in addition to the herbicides. Plots were sprayed in April 2010, October 2010, April 2011 and April 2012. October 2012 was too wet and windy for spraying to occur. A prescribed fire in December 2010 burned through one of the groups on the north side of CRP. The stakes delineating the plots were not burned and this group continued to be used in the study. Approximately five months after each spray event,

guineagrass control was estimated by four individuals by comparing guineagrass in treated plots to untreated plots on a 0 to 100 scale (expressed as percent) where 0 represented no control and 100 represented complete control (Camper 1986). A final evaluation was conducted in October 2012.

Results and Discussion

A one-way repeated measures ANOVA indicated a significant [$F(6, 20) = 11.821$, $MSE = 847$, $p < 0.0001$]) treatment (herbicide mixture) effect. A post-hoc Tukey's Honest Significant Difference (HSD) test was used to test for differences between guineagrass control means (Figure 1).

After four applications of each herbicide mixture and twenty-five months after the initial application, the highest average control observed for all herbicide mixtures was only 56%, which demonstrates the difficulty of controlling guineagrass at CRP. The highest control was observed for those herbicide mixtures that contained glyphosate and there was no statistical difference among any of the glyphosate-containing mixtures, suggesting that there is no advantage to applying any of the other herbicides tested. This is especially true when considering the added expense of including the other herbicides (Table 1). Nor did pendimethalin, imazamox, or the mixture of imazapyr and diuron provide better control than glyphosate by itself. It can be concluded that repeat applications of a 3% glyphosate-containing product, which is equivalent to the six qt/ac rate used in this study and historically used for guineagrass control at CRP, should be continued as the management practice.

The development of herbicide resistance has been expressed as a threat to management of natural area weeds (Hutchinson et al. 2007). Globally, twenty eight weed species have developed resistance to the mechanism of action of glyphosate, ESPS synthase inhibition (Heap 2014). Already somewhat tolerant to glyphosate, guineagrass has the potential to develop increased resistance to glyphosate in response to repeated applications over time. To minimize the potential for resistance development, herbicides with different modes of action should be alternated. The herbicides with different modes of action tested in this study did not provide sufficient control to justify alternating with glyphosate. Therefore, further research is needed to find herbicides with different modes of action for control of guineagrass.

> In the early 1900s, botanist and naturalist, Charles Torrey Simpson, warned, "There are the adventive plants, the wanderers, of which we have, as yet, comparatively few species; but later, when the country is older and more generally cultivated, there will surely be an army of them." (Simpson 1920)

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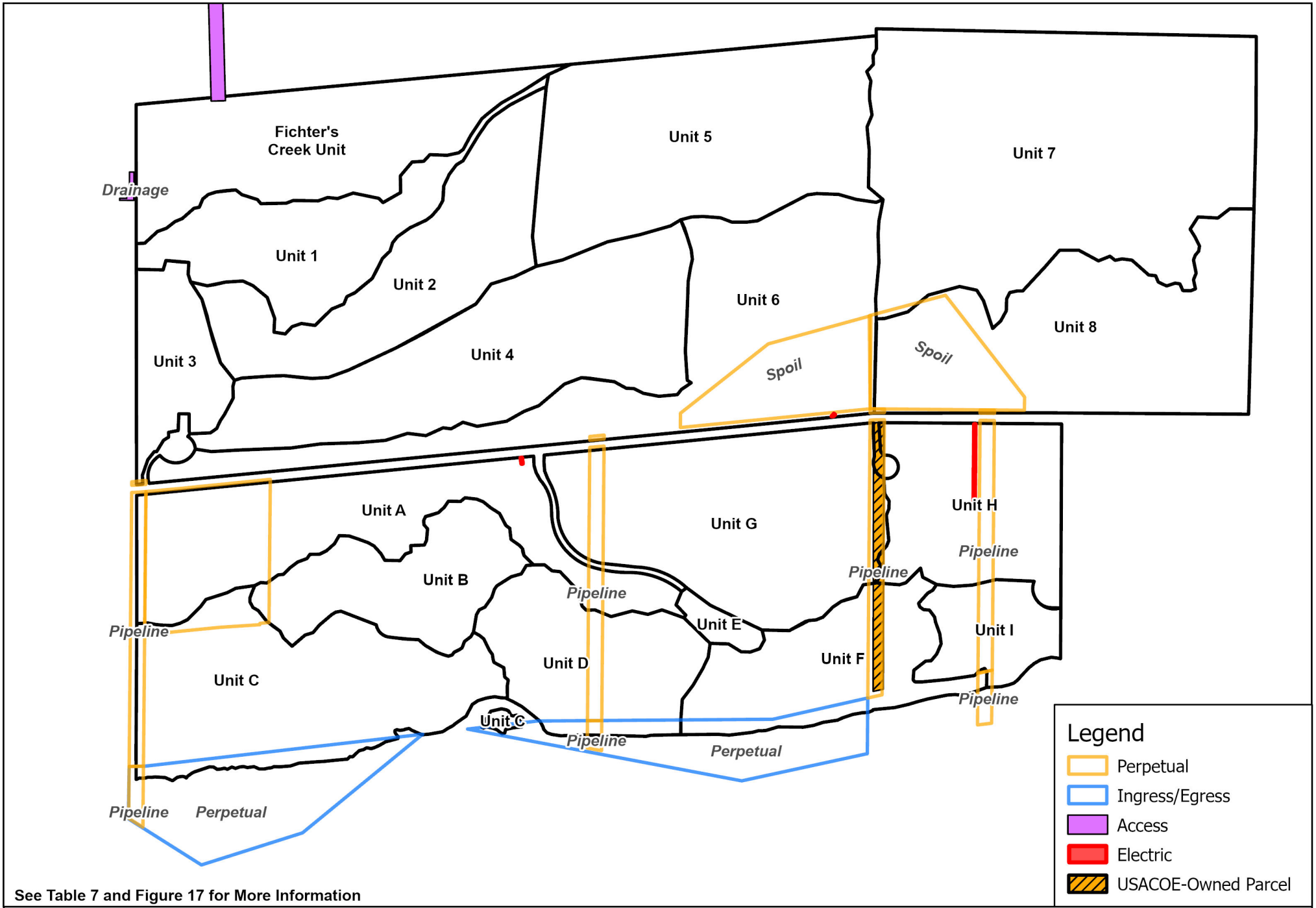

See Table 7 and Figure 17 for More Information

Lee County Parks & Recreation

Stewardship Units and Easement Map

Caloosahatchee Regional Park | 19130 North River Road | Alva | FL | 33920

0 990 Feet

Lee County Southwest Florida

COMMERCIAL BUILDING PERMIT

Lee County Southwest Florida

COMMERCIAL

Re-Print Permit Board

PERMIT NUMBER: COM2016-01378

ISSUED: 12/08/16
EXPIRES: 06/08/17

Owner Name: TIITF/COUNTIES
Contractor: CGC048616 WESTCO BUILDERS OF FLORIDA INC Master # :
Project Name: CRP MAINTENANCE BLDG DO Number: LDO2015-00661
Description: CONSTRUCT 3,000 SQUARE FOOT WAREHOUSE AND NECESSARY SITE IMPROVEMENTS
Job Address: 18500 N RIVER RD ALVA 33920

Zoning: AG-2 Flood Req: N Elevation:
Coastal Req: N Flood Compl: Threshold Building: N
Upgrade: # of Amps: 100 Relocate: # of Pedestals:
Engineering: Y # of Meters:
Type of MEC Permit: Interior/Exterior: # of Compressors:
# of Exhaust Hds: New/Replace: Type of AC System: SS
Type of PLU Permit: Plumbing Type of ROF Permit: Metal
Type of FIR Permit: Type of Septic: Sewer

REQUEST AN INSPECTION ONLINE @ WEBPERMITS.LEEGOV.COM orCALL 239-533-8997 OPTION 1
WHEN PROMPTED FOR THE PERMIT NUMBER ENTER 266 2016 * 01378 #

	DATE	BY		DATE	BY
101 Foundation *(101) only required if new concrete poured*			130 Sheathing Straps Eng. and Bucks		
102 Floor					
103 Tie Beam			105 Framing		
104 Columns/ Pilings			107 Insulation		
106 Final Framing					
902 Final Fire			*Request the inspection through the IVR then contact Alva Fire District to schedule a time at 239-728-2223.*		
301 Temporary Pole *optional*			304 Rough Electrical		
			305 Final Electric		
306 Temp/PermPower *optional*			308 House Meter *optional*		
401 Rough HVAC			402 Final HVAC		
201 Rough Plumbing			204 Final Plumbing		
202 2nd R. Plumbing (tubset)					
203 Sewer					

Termite Certificate required prior to the final frame/aluminum inspection.

THE ABOVE INSPECTION REQUIREMENTS ARE BASED ON THE TIME OF PERMIT ISSUANCE. IF ANY REVISIONS HAVE ADJUSTED THE ORIGINAL PERMIT THEN FURTHER INSPECTIONS MAY BE REQUIRED.
YOU MAY TRACK YOUR PERMIT ONLINE AT WWW.LEE-COUNTY.COM/ECONNECT

FEDERAL AND STATE LAWS REQUIRE THAT FOR DEMOLITION AND RENOVATIONS THE OWNER AND/OR OPERATOR TO SUBMIT A NOTICE TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PRIOR TO THE REMOVAL OF ASBESTOS PRODUCTS AND /OR THE DEMOLITION OF A STRUCTURE. FOR MORE INFO CONTACT DEP AT 239-332-6975

WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT.

IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY, THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENTAL ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE OR FEDERAL AGENCIES. THIS PERMIT IS VOID IF THE FIRST INSPECTION IS NOT MADE WITHIN 6 MONTHS FROM THE DATE ISSUED OR IF NO INSPECTION HAS BEEN MADE FOR A PERIOD OF 6 MONTHS FROM THE MOST RECENT PASSED INSPECTION. BUILDING PLANS MUST BE ON JOBSITE AT TIME OF INSPECTION. REINSPECTION FEE IS $50.00

THIS CARD MUST BE PLACED ON A BOARD AT EYE LEVEL SO IT CAN BE READ FROM STREET AND BE PROTECTED FROM THE WEATHER.

Commercial Bldg Permit Board/fcomprmt

Fichter's Creek Restoration

Section 18, Township 43 South, Range 27 East
Lee County, Florida

Restoration, Maintenance, and Monitoring Plan

South Florida Water Management District
Application No.: ***090504-3***

U.S. Army Corps of Engineers
Application No.: ***SAJ-2009-01712 (NW-CJE)***

September 2009
Revised August 2010
Revised July 2011

Project No.: 2007-77

INTRODUCTION

Restoration work for the Fichter's Creek Restoration project will occur within and immediately adjacent to the Caloosahatchee Regional Park site. The Park site is located within Section 18, Township 43, South; and Range 27, East; in Lee County. More specifically, the park site is located north of North River Road and east of Fichter's Creek Lane. A Project Location Map (Exhibit A).

The proposed project is for the restoration and storm water management of Fichter's Creek, within and adjacent to Caloosahatchee Regional Park. The restoration and storm water management of Fichter's Creek will include:

- Elevating a portion of Fichter's Creek Lane and replacing the existing Fichter's Creek Lane Bridge where it crosses the Creek with a 6'x10' box culvert and concrete spillway.
- Construction of a lake/aquascape and dry detention ponds, including control structures, within the Caloosahatchee Regional Park.
- Replacement of existing dilapidated outfall pipes along the northern portion of the Park.
- Regrading the existing manmade ditch to create a filter marsh, replacing the existing 36" culvert in the manmade ditch at North River Road (C.R. 78) with a water control structure and double 36" culvert pipes under C.R. 78.
- Regrading the berm between the proposed filter marsh and Fichter's Creek Lane to the west and filling existing breaches.
- Creating a meandering swale connection, to divert part of the flow from the existing manmade ditch, where it ties into the Caloosahatchee River.
- Reconstruction of existing berms to block breaches between the Park, the Creek and the filter marsh.

The purpose of the project is to provide hydrologic restoration through water quality treatment and flood protection. Currently, there is reason for health and safety concerns for the areas within and immediately adjacent to the proposed restoration work. Furthermore, the restoration work should provide ecological restoration and improved water quality through regulated hydro-periods, removal of exotics, and installation of native plants which provide treatment within the created filter marsh.

RESTORATION PLAN

The restoration areas will correspond to the habitats depicted on the Restoration Plan Map (Exhibit B), also described below. The areas to be restored are currently owned by the State and managed by Lee County Parks and Recreation. Perpetual maintenance of the restoration areas is therefore evident, by the issuance of an Environmental Resource Permit.

A. Initial Site Preparation

The location of the detention and lake areas and the limits of mechanical removal will be staked, survey located, and a point map will be prepared. An updated protected species survey will be conducted within the restoration area, four weeks prior to restoration work. This survey will ensure the protection of any listed species inhabiting these areas.

B. Hydrologic Restoration Work

The following work will be conducted as part of the restoration plan:

- **Lake and Dry Detention**
  - Construction of a lake and dry detention ponds, including control structures, within the Caloosahatchee Regional Park.
  - Replace the dillapidated outfall pipes currently in this area, within existing berms.
  - Providing hydrologic connection between Creek and lake/detention areas.
  - Hydrate the drained cypress habitat contained within the detention area.
  - Rework existing berms to block breaches between the Park and the Creek and ditch; berms will not be removed as part of this project, as they are an amenity to the Park.
  - Plant the lake/aquascape area with native species according to the Aquascape Planting Plan (Exhibit C).
- **Western Ditch**
  - Regrade the existing manmade ditch according to site plan and cross-section elevations, to create a filter marsh.
  - Replace the existing single 36" culvert in the manmade ditch at North River Road with a water control structure and double 36" culvert pipes under C.R.78.
  - Regrade the berm between the ditch and Fichter's Creek Lane to the west and fill existing breaches.
  - Place rip-rap within the ditch, adjacent to the replaced pipes on the south side of C.R. 78.
  - Plant this area with native species according to the Western Ditch Planting Plan (Exhibit D).
- **Fichter's Creek Lane Bridge**
  - Elevate a portion of Fichter's Creek Lane and replace the existing Fichter's Creek Lane Bridge where it crosses the Creek with a 6'x10' box culvert and concrete spillway.
  - Replant area following culvert installation, with native species as necessary to promote natural recruitment.
- **Bypass Swale**
  - Create a meandering swale connection, to divert part of the flow from the existing manmade ditch, where it ties into the Caloosahatchee River.
  - Swale will meander to avoid impacts to existing native mature vegetation.

C. Ecological Restoration Work

Exotics will be killed in a manner consistent with current exotic removal practices, while ensuring that native plants are left unharmed and the soil is left as undisturbed as possible. It is recommended that any use of herbicides be applied by a licensed herbicide applicator, utilizing approved methods, and best management practices. Exotic debris will be removed from the proposed enhancement areas; no stacking, tee-peeing, log cabin, or girdling methods will be utilized, unless otherwise approved by South Florida Water Management District (SFWMD) staff.

- Stream Swamp (<25% Exotics) (FLUCFCS 615E1) (1.20± acres)
  This area is the actual creek that will be enhanced through selective exotic removal.
- Wetland Forested Mixed (>75% Exotics) (FLUCFCS 630E4) (11.90± acres)
  This area is dominated by Brazilian pepper (*Schinus terebinthifolius*), but does contain scattered native trees including cabbage palms, red-maple, laurel oak, and slash pine.

Due to the nature of this restoration project, mechanical removal will be permitted; however, coordination with SFWMD staff must be made prior to any clearing. The areas to be mechanically cleared will be staked and any native trees will be flagged. Mechanical clearing will only occur within the hydric Brazilian pepper wetland, as approved. Overall native tree, sub-canopy, and groundcover coverage shall meet the 80% native coverage requirement at the end of two years, or additional plantings will be provided. If plantings are necessary, the installed plants will be consistent with native species currently found in the surrounding habitat onsite. Table 1 provides a list of species identified previously in this area, which may be utilized for supplemental planting as appropriate. An estimated total number of plantings have also been provided in the table below.

TABLE 1. WETLAND FORESTED MIXED WETLAND PLANTINGS, SPECIES, SIZE, AND SPACING

Common Name	Scientific Name	Minimum Size or Better	Spacing	Notes
Trees*				Spacing will consider the location of existing native vegetation, approximately 12-15' spacing to allow for natural recruitment and long term growth. Trees to be planted within the wetland can be transplanted from the Park site as practicable.
Laurel Oak	*Quercus laurifolia*	8' tall	12-15' on center	
Slash Pine	*Pinus elliottii*	8' tall	12-15' on center	
Cypress	*Taxodium distichum*	8' tall	12-15' on center	
Cabbage Palm	*Sabal palmetto*	8' tall	12-15' on center	
Red Maple	*Acer rubrum*	8' tall	12-15' on center	
Dahoon Holly	*Ilex cassine*	8' tall	12-15' on center	
Sweet Bay Magnolia	*Magnolia virginiana*	8' tall	12-15' on center	
Red Mulberry	*Morus rubra*	8' tall	12-15' on center	
Pop Ash	*Fraxinus caroliniana*	8' tall	12-15' on center	
Pond Apple	*Anona glabra*	8' tall	12-15' on center	
Total estimated trees based on planting area of 11.81± acres :				**~3,600**

*Species type and number may vary depending on availability. For additional tree species, see the Caloosahatchee Regional Park Management Plan.

- Lake/Aquascape (4.04 ± acres)
  Once the aquascape area has been prepared; this area will be planted with native species. The Aquascape Planting Plan depicts in more detail the location of the planting zones within the 4.04± acres of created aquascape (Exhibit C).
  - Zone A will be planted between elevation 10.5' NAVD and 11.5' NAVD.
  - Zone B will be planted between elevation 11.5' NAVD and 12.50' NAVD.
  - Zone C will be planted between elevation 12.5' NAVD and 13.50' NAVD.
  - Above elevation 13.50' NAVD to the top-of-bank, approximately 16.50' NAVD, bahia sod (*Paspalum notatum*) will be installed and includes approximately 27,379 ft².

  The plantings will be clustered to promote their establishment and survival. Table 2 identifies the plant species to be utilized in Zone A, B, and C, also included as part of Exhibit C.

TABLE 2. AQUASCAPE PLANTINGS BY ZONE

Zone A Plantings				
Elevation of 10.5' NAVD to 11.5' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Arrowhead	*Sagittaria lancifolia*	2" liners or bare root.	3' center	2,087
Coastal Spikerush	*Eleocharis cellulosa*	2" liners or bare root.	3' center	2,087
Fireflag	*Thalia geniculate*	2" liners or bare root.	3' center	2,087
Giant Bulrush	*Scirpus californicus*	2" liners or bare root.	3' center	2,087
Maidencane	*Panicum hemotomon*	2" liners or bare root.	3' center	2,087
Pickerelweed	*Pontederia cordata*	2" liners or bare root.	3' center	2,087
Spikerush	*Eleocharis interstincta*	2" liners or bare root.	3' center	2,087
Total estimated plants based on planting area of 131,463ft²:				**14,609**

*Zone B Plantings				
Elevation of 11.5' NAVD to 12.5' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Maidencane	*Panicum hemitomon*	2" liners or bare root.	3' center	156
Pickerelweed	*Pontederia cordata*	2" liners or bare root.	3' center	156
Spikerush	*Eleocharis interstincta*	2" liners or bare root.	3' center	156
Muhly Grass	*Muhlenbergia expansa*	2" liners or bare root.	3' center	156
Fakahatchee Grass	*Tripsacum dactyloides*	2" liners or bare root.	3' center	156
Sand Cord Grass	*Spartina bakeri*	2" liners or bare root.	3' center	156
Total estimated plants based on planting area of 8,447ft²:				**936**

Zone C Plantings				
Elevation of 12.5' NAVD to 13.50' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Muhly Grass	*Muhlenbergia expansa*	2" liners or bare root.	3' center	321
Fakahatchee Grass	*Tripsacum dactyloides*	2" liners or bare root.	3' center	321
Sand Cord Grass	*Spartina bakeri*	2" liners or bare root.	3' center	321
Total estimated plants based on planting area of 8,674ft²:				**963**

*Plants within Zone B will be located based on elevation and species preference for water depth. The planting zones are preliminary and may be modified based on field conditions.

- Berms (FLUCFCS 747) (1.16± acres)
  Exotics along the berm in the northern portion of the park will be removed by hand to ensure the berm remains intact. Gopher tortoises (*Gopherus polyphemus*) were previously identified within this portion of the property. A buffer meeting FWC guidelines will be provided around all gopher tortoise burrows to ensure equipment does not impact these areas. Access and staging areas will be limited to ensure preservation of existing native plants and gopher tortoise burrows. Following the exotic removal along the berm, native trees will be planted, outside of the gopher tortoise buffer areas. If practicable, trees removed as part of the restoration work will be transplanted to the berm. However, if this is not feasible, supplemental tree plantings will be installed according to Table 3. The exact number of tree plantings is unknown at this time; however, it is estimated to be 100 trees. Since this community contains foraging habitat for Gopher tortoise, the requirement for 80% coverage of native species at all strata would not necessarily be appropriate. Therefore, the vegetation will be evaluated after two years of natural recruitment to determine the native species coverage and planting requirements of each stratum.

TABLE 3. BERM PLANTINGS, SPECIES, SIZE, AND SPACING

Common Name	Scientific Name	Minimum Size or Better	Spacing	Notes
Trees*				Spacing will be based on location of existing native vegetation, approximately 12-15' spacing to allow for natural recruitment and long term growth. Trees to be planted within berm can be transplanted from the Park site as practicable.
Live Oak	*Quercus virginiana*	8' tall	12-15' on center	
Laurel Oak	*Quercus laurifolia*	8' tall	12-15' on center	
Slash Pine	*Pinus elliottii*	8' tall	12-15' on center	
Cabbage Palm	*Sabal palmetto*	8' tall	12-15' on center	
Gumbo Limbo	*Bursera simaruba*	8' tall	12-15' on center	
Stopper(s)	*Eugenia* spp.	8' tall	12-15' on center	
Chapman's Oak	*Quercus chapmanii*	8' tall	12-15' on center	
Persimmon	*Diospyros virginiana*	8' tall	12-15' on center	
American elm	*Ulmus americana*	8' tall	12-15' on center	
Pop Ash	*Fraxinus caroliniana*	8' tall	12-15' on center	
			Total estimated trees:	**100**

- Cypress, Drained (FLUCFCS 6215 E2) (0.91± acres)
  The habitat identified as Cypress, Drained, will be incorporated into the on-site detention area. This area currently is dominated in the groundcover by invasive exotic species, such as cogon grass (*Imperata cylindrical*) and guinea grass (*Panicum maximum*); with

various other non-native species making up the remaining cover. During the initial establishment of the detention area, these species will be treated with an approved herbicide, in order to promote the establishment of native species in this stratum. Subsequent hand spraying will occur as necessary to ensure exotic coverage remains at less than thirty percent coverage. As part of the hydrologic restoration proposed on-site, this area will be incorporated into the detention area providing water treatment and attenuation in a drained portion of the site. No supplemental plantings are proposed.

- Ditch (FLUCFCS 510) and Bypass Swale (2.37 ± acres)
  Once the culverts and control structure have been installed, and the ditch re-graded, this area will be planted with native species. The Western Ditch Planting Plan depicts in more detail the location of the planting zones within the 2.09± acres of created filter marsh (Exhibit D).
  - Zone A will be planted between elevation 8.0' NAVD and 10.5' NAVD.
  - Zone B will be planted between elevation 10.5' NAVD and 11.5' NAVD.
  - Zone C will be planted between elevation 11.5' NAVD and 12.75' NAVD.
  - Above elevation 12.75' NAVD to the top-of-bank, approximately 14.75' NAVD, bahia sod (*Paspalum notatum*) will be installed and includes approximately 18,879 ft².

  The plantings will be clustered to promote their establishment and survival. Plantings will be installed in combination with perforated biodegradable erosion control fabric. The fabric used for this application, will be consistent with the fabric utilized for other successful Lee County restoration projects. Table 4 identifies the plant species to be utilized in Zone A, B, and C, also included as part of Exhibit D.

TABLE 4. WESTERN DITCH PLANTINGS BY ZONE

Zone A Plantings				
Elevation of 8.0' NAVD to 10.5' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Arrowhead	*Sagittaria lancifolia*	2" liners or bare root.	1' center	2,722
Coastal Spikerush	*Eleocharis cellulosa*	2" liners or bare root.	1' center	2,722
Fireflag	*Thalia geniculate*	2" liners or bare root.	1' center	2,722
Giant Bulrush	*Scirpus californicus*	2" liners or bare root.	1' center	2,722
Jointed Spikerush	*Eleocharis interstincta*	2" liners or bare root.	1' center	2,722
Maidencane	*Panicum hemitomon*	2" liners or bare root.	1' center	2,722
Total estimated plants based on planting area of 32,663 ft²:				**16,332**

Zone B Plantings				
Elevation of 10.5' NAVD to 11.5' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Arrowhead	*Sagittaria lancifolia*	2" liners or bare root.	1' center	1,766
Pickerelweed	*Pontederia cordata*	2" liners or bare root.	1' center	1,766
Spikerush	*Eleocharis interstincta*	2" liners or bare root.	1' center	1,766
Total estimated plants based on planting area of 10,596 ft²:				**5,298**

Zone C Plantings				
Elevation of 11.5' NAVD to 12.75' NAVD				
Common Name	**Scientific Name**	**Size**	**Spacing**	**Quantity**
Muhly Grass	*Muhlenbergia expansa*	2" liners or bare root.	1' center	2,225
Fakahatchee Grass	*Tripsacum dactyloides*	2" liners or bare root.	1' center	2,225
Sand Cord Grass	*Spartina bakeri*	2" liners or bare root.	1' center	2,225
Total estimated plants based on planting area of 13,350 ft²:				**6,675**

The planting zones are preliminary and may be modified based on field conditions. Erosion control fabric will be installed in combination with plantings.

The bypass swale on the southern end of the ditch will meander and avoid impacts to existing mature vegetation. This area will be planted with the same or similar species utilized in Zone A of the Western Ditch Planting Plan. Erosion control fabric will also be installed in this location, in combination with the plantings to ensure the establishment.

- Temporary Impact Areas (0.09± Acres)
  Approximately 0.09± acres of Streams and Lake Swamps will be temporarily impacted as a result of the proposed restoration work. An additional, 0.09± acres of temporary impacts are proposed within the Brazilian pepper wetland, which currently has a planting plan. Due to the existing mature vegetation adjacent to the work areas (FLUCFCS 615E1), trimming may be necessary to allow for equipment access and installation. As a result, supplemental plantings may be necessary following the completion of the restoration work in these areas. Plantings will meet minimum shrub or tree size requirements and will be planted to enhance the trimmed areas. The exact number of plants will be determined subsequent to the hydrologic restoration work. Spacing will mimic that of the existing native vegetation, which likely include tree spacing approximately 12 to 15 feet apart, while shrubs will be spaced approximately 3 to 6 feet apart. The following table includes potential supplemental plant species for this area and species will be chosen based on hydrology of the area to be planted. Native tree, shrub, and groundcover species cover will meet 80% coverage at the end of two years, or additional plantings will be installed. If plantings are necessary, the species planted will mimic the native species which already exist on-site.

TABLE 5. TEMPORARY IMPACTS SUPPLEMENTAL PLANTINGS (FLUCFCS 615E1)

Common Name	Scientific Name	Minimum Size or Better	Notes
Trees*			Spacing will be based on location of existing native vegetation, approximately 12-15' spacing to allow for natural recruitment and long term growth. Trees to be planted within the wetland can be transplanted from the Park site as practicable.
Laurel Oak	*Quercus laurifolia*	8' tall	
Slash Pine	*Pinus elliottii*	8' tall	
Cypress	*Taxodium distichum*	8' tall	
Cabbage Palm	*Sabal palmetto*	8' tall	
Red Maple	*Acer rubrum*	8' tall	
Dahoon Holly	*Ilex cassine*	8' tall	
Sweet Bay Magnolia	*Magnolia virginiana*	8' tall	
Gumbo Limbo	*Bursera simaruba*	8' tall	
Stopper(s)	*Eugenia* spp.	8' tall	
Chapman's Oak	*Quercus chapmanii*	8' tall	
Persimmon	*Diospyros virginiana*	8' tall	
American elm	*Ulmus americana*	8' tall	
		Total estimated trees:	**15**
Shrubs*			Spacing will be based on location of existing native vegetation, approximately 3-6' spacing to allow for natural recruitment and long term growth. Shrubs will be installed as necessary.
Saltbush	*Baccharis halimilifolia*	1 gallon	
Cordgrass	*Spartina bakeri*	1 gallon	
Fakahatchee Grass	*Tripsacum dactyloides*	1 gallon	
Wax Myrtle	*Merica cerifera*	1 gallon	
		Total estimated shrubs:	**20**

*Substitutes to the above plant lists may occur after review and approval by SFWMD staff. All planted material will be watered as necessary, to ensure survivability.

MAINTENANCE PLAN

The intent of this plan is to provide assurance that the designated restoration areas are maintained free of exotic plants in perpetuity. This is achieved by establishing a scheduled program to maintain the restoration area free of exotic plants (as defined by the latest exotic plant list published by the Florida Exotic Pest Plant Council). The exotic and nuisance species should constitute no more than five percent of total cover at all times. In addition, at the end of the first annual monitoring period, the restoration areas shall contain an 80% survival of planted vegetation. The 80% survival rate shall be maintained throughout the remainder of the monitoring program. At the end of the five years of monitoring, the mitigation areas shall contain an 80% survival of planted vegetation, with 80% coverage of desirable obligate and facultative wetland species.

MONITORING PLAN

The objective of the monitoring will be to determine the health of the designated restoration areas in terms of vegetation composition. Monitoring will include a baseline, time-zero and

annual monitoring for five years. A report will be prepared and submitted to the SFWMD and Corps documenting the following parameters:

- Restoration area condition documented through panoramic photographs
- Vegetation composition and percent coverage along a transect
- Percent cover of nuisance and exotic plant species
- Wildlife observations
- Water level observations and rainfall data

The report will evaluate the success of the restoration and maintenance efforts, activities conducted to date, and any remedial activities that are necessary to ensure the success of the restoration areas. The attached Monitoring Map identifies the location of the proposed transects and photopoints, which will be utilized during the above monitoring events (Exhibit E). An approximate monitoring and maintenance schedule is provided in Table 6, below.

Table 6. Approximate Monitoring and Maintenance Schedule

Completion Date	Activity
September 2011	Baseline Monitoring report
February 2012	Initial Exotic Removal
March 2012	Time Zero Monitoring Report
February 2013	Maintenance Activity
March 2013	First Annual Monitoring Report
February 2014	Maintenance Activity
March 2014	Second Annual Monitoring Report
February 2015	Maintenance Activity
March 2015	Third Annual Monitoring Report
February 2016	Maintenance Activity
March 2016	Fourth Annual Monitoring Report
February 2017	Maintenance Activity
March 2017	Fifth Annual Monitoring Report

**Adjustments to the above schedule can be made with SFWMD approval.*