

Land Management Plan Compliance Checklist

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

Instructions for managers:

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

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

Section A: Acquisition Information Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
1	The common name of the property.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 8 (II.A.1)
2	The land acquisition program, if any, under which the property was acquired.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 10 (II.A.4)
3	Degree of title interest held by the Board, including reservations and encumbrances such as leases.	18-2.021	Page 11 (II.B.2)
4	The legal description and acreage of the property.	18-2.018 & 18-2.021	Page 8 (II.A.2)
5	A map showing the approximate location and boundaries of the property, and the location of any structures or improvements to the property.	18-2.018 & 18-2.021	Exhibits B & D
6	An assessment as to whether the property, or any portion, should be declared surplus. <i>Provide Information regarding assessment and analysis in the plan, and provide corresponding map.</i>	18-2.021	Page 15 (II.D.3)
7	Identification of other parcels of land within or immediately adjacent to the property that should be purchased because they are essential to management of the property. <i>Please clearly indicate parcels on a map.</i>	18-2.021	Page 14 (II.D.2); Exhibit C
8	Identification of adjacent land uses that conflict with the planned use of the property, if any.	18-2.021	Page 15 (II.D.4)
9	A statement of the purpose for which the lands were acquired, the projected use or uses as defined in 253.034 and the statutory authority for such use or uses.	259.032	Page 3 (I.A); Page 11 (II.B.1)
10	Proximity of property to other significant State, local or federal land or water resources.	18-2.021	Page 9 (II.A.3); Exhibit F

Section B: Use Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
11	The designated single use or multiple use management for the property, including use by other managing entities.	18-2.018 & 18-2.021	Page 1 (Executive Summary); Page 3 (I.A); Page 11 (II.B.3)
12	A description of past and existing uses, including any unauthorized uses of the property.	18-2.018 & 18-2.021	Page 3 (I.B); Page 11 (II.B.4); Page 15 (II.D.6); Page 16 (II.E.); Page 17 (III); Page 20 (IV); Page 29 (V); Page 32 (VI); Page 39 (VII)
13	A description of alternative or multiple uses of the property considered by the lessee and a statement detailing why such uses were not adopted.	18-2.018	Page 14 (II.D)

14	A description of the management responsibilities of each entity involved in the property's management and how such responsibilities will be coordinated.	18-2.018	Page 1 (Executive Summary); Page 16 (II.E.1)
15	Include a provision that requires that the managing agency consult with the Division of Historical Resources, Department of State before taking actions that may adversely affect archeological or historical resources.	18-2.021	Page 19 (III.C-D); Exhibit I
16	Analysis/description of other managing agencies and private land managers, if any, which could facilitate the restoration or management of the land.	18-2.021	Page 17 (II.E.6); Page 19 (III.C); Page 23 (IV.C.2-3); Page 39 (VI.F)
17	A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	259.032	Page 3 (I.A)
18	A finding regarding whether each planned use complies with the 1981 State Lands Management Plan, particularly whether such uses represent "balanced public utilization," specific agency statutory authority and any other legislative or executive directives that constrain the use of such property.	18-2.021	Page 12 (II.B.5)
19	Letter of compliance from the local government stating that the LMP is in compliance with the Local Government Comprehensive Plan.	BOT requirement	Page 15 (II.D.5); Exhibit T
20	An assessment of the impact of planned uses on the renewable and non-renewable resources of the property, including soil and water resources, and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to compensate/mitigate damage caused by such uses, including a description of how the manager plans to control and prevent soil erosion and soil or water contamination.	18-2.018 & 18-2.021	Page 7 (I.C Goal 7); Page 20 (IV); Exhibits K & L
21	*For managed areas larger than 1,000 acres, an analysis of the multiple-use potential of the property which shall include the potential of the property to generate revenues to enhance the management of the property provided that no lease, easement, or license for such revenue-generating use shall be entered into if the granting of such lease, easement or license would adversely affect the tax exemption of the interest on any revenue bonds issued to fund the acquisition of the affected lands from gross income for federal income tax purposes, pursuant to Internal Revenue Service regulations.	18-2.021 & 253.036	Page 3 (I.A); Page 11 (II.B.4)
22	If the lead managing agency determines that timber resource management is not in conflict with the primary management objectives of the managed area, a component or section, prepared by a qualified professional forester, that assesses the feasibility of managing timber resources pursuant to section 253.036, F.S.	18-021	Page 36 (VI.C)
23	A statement regarding incompatible use in reference to Ch. 253.034(10).	253.034(10)	Page 14 (II.D.1)

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

Section C: Public Involvement Items

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
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24	A statement concerning the extent of public involvement and local government participation in the development of the plan, if any.	18-2.021	Page 1 (Executive Summary); Page 17 (II.E.4); Exhibits S, T, U, W
25	The management prospectus required pursuant to paragraph (9)(d) shall be available to the public for a period of 30 days prior to the public hearing.	259.032	✓
26	LMPs and LMP updates for parcels over 160 acres shall be developed with input from an advisory group who must conduct at least one public hearing within the county in which the parcel or project is located. <i>Include the advisory group members and their affiliations, as well as the date and location of the advisory group meeting.</i>	259.032	Page 17 (II.E.4); Exhibit U
27	Summary of comments and concerns expressed by the advisory group for parcels over 160 acres	18-2.021	Exhibit U
28	During plan development, at least one public hearing shall be held in each affected county. Notice of such public hearing shall be posted on the parcel or project designated for management, advertised in a paper of general circulation, and announced at a scheduled meeting of the local governing body before the actual public hearing. <i>Include a copy of each County's advertisements and announcements (meeting minutes will suffice to indicate an announcement) in the management plan.</i>	253.034 & 259.032	✓
29	The manager shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. <i>Include manager's replies to the team's findings and recommendations.</i>	259.036	Page 17 (II.E.4); Exhibit S
30	Summary of comments and concerns expressed by the management review team, if required by Section 259.036, F.S.	18-2.021	Exhibit S
31	If manager is not in agreement with the management review team's findings and recommendations in finalizing the required 10-year update of its management plan, the managing agency should explain why they disagree with the findings or recommendations.	259.036	Exhibit S

Section D: Natural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
32	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding soil types. <i>Use brief descriptions and include USDA maps when available.</i>	18-2.021	Page 20 (IV.A); Exhibit J
33	Insert FNAI based natural community maps when available.	ARC consensus	Exhibits M, Q, R
34	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding outstanding native landscapes containing relatively unaltered flora, fauna and geological conditions.	18-2.021	Page 22 (IV.C); Exhibits J, M, N
35	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding unique natural features and/or resources including but not limited to virgin timber stands, scenic vistas, natural rivers and streams, coral reefs, natural springs, caverns and large sinkholes.	18-2.018 & 18-2.021	Page 27 (IV.G)
36	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding beaches and dunes.	18-2.021	Page 27 (IV.E)
37	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding mineral resources, such as oil, gas and phosphate, etc.	18-2.018 & 18-2.021	Page 27 (IV.F)

38	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding fish and wildlife, both game and non-game, and their habitat.	18-2.018 & 18-2.021	Page 25 (IV.C.4); Exhibits M, N
39	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding State and Federally listed endangered or threatened species and their habitat.	18-2.021	Page 22 (IV.C.1); Exhibits M, N
40	The identification or resources on the property that are listed in the Natural Areas Inventory. <i>Include letter from FNAI or consultant where appropriate.</i>	18-2.021	Page 23 (IV.C.2); Exhibits M, Q, R
41	Specific description of how the managing agency plans to identify, locate, protect and preserve or otherwise use fragile, nonrenewable natural and cultural resources.	259.032	Page 4 (I.C); Page 19 (III.C,D); Page 20 (IV); Page 32 (VI.A-B); Page 39 (VII)
42	Habitat Restoration and Improvement	259.032 & 253.034	Page 20 (IV)
42-A.	Describe management needs, problems and a desired outcome and the key management activities necessary to achieve the enhancement, protection and preservation of restored habitats and enhance the natural, historical and archeological resources and their values for which the lands were acquired.	↓	Page 4 (I.C); Page 39 (VII)
42-B.	Provide a detailed description of both short (2-year planning period) and long-term (10-year planning period) management goals, and a priority schedule based on the purposes for which the lands were acquired and include a timeline for completion.		Page 4 (I.C)
42-C.	The associated measurable objectives to achieve the goals.		Page 4 (I.C)
42-D.	The related activities that are to be performed to meet the land management objectives and their associated measures. <i>Include fire management plans - they can be in plan body or an appendix.</i>		Page 4 (I.C); Page 32 (VI); Page 39 (VII)
42-E.	A detailed expense and manpower budget in order to provide a management tool that facilitates development of performance measures, including recommendations for cost-effective methods of accomplishing those activities.		Page 13 (II.C.4), Exhibit V
43	***Quantitative data description of the land regarding an inventory of forest and other natural resources and associated acreage. <i>See footnote.</i>	253.034	Page 8 (II.A.2); Page 10 (II.A.4); Page 12 (II.C); Page 39 (VII); Exhibits E, J, M, Q, S
44	Sustainable Forest Management, including implementation of prescribed fire management	18-2.021, 253.034 & 259.032 ↓	Page 32 (VI); Exhibit O
44-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).		Page 5 (I.C. Goal 1); Page 32 (VI); Page 39 (VII)
44-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 1)
44-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 1)
44-D.	Related activities (see requirement for #42-D).		Page 32 (VI); Page 39 (VII)
44-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
45	Imperiled species, habitat maintenance, enhancement, restoration or population restoration	259.032 & 253.034	Page 22 (IV.C)
45-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C Goal 4); Page 22 (IV.C.1); Page 39 (VII)
45-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C Goal 4)

45-D.	Related activities (see requirement for #42-D).		Page 22 (IV.C.1); Page 39 (VII)
45-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
45-F	Assess the feasibility of managing the lands > 40 contiguous acres as a recipient site for gopher tortoises consistent with rules of the Fish and Wildlife Conservation Commission, as prepared by the agency or cooperatively with a Fish and Wildlife Conservation Commission wildlife biologist.	259.105	Page 26 (IV.C.6)
45-G	Economic feasibility of establishing a gopher tortoise recipient site, including the initial cost, recurring management costs and the revenue projections.	259.105	Page 26 (IV.C.6)
46	***Quantitative data description of the land regarding an inventory of exotic and invasive plants and associated acreage. <i>See footnote.</i>	253.034	Page 37 (VI.D); Exhibit P
47	Place the Arthropod Control Plan in an appendix. If one does not exist, provide a statement as to what arrangement exists between the local mosquito control district and the management unit.	BOT requirement via lease language	Exhibit W
48	Exotic and invasive species maintenance and control	259.032 & 253.034	Page 37 (VI.D)
48-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C Goal 5); Exhibit P
48-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C Goal 5)
48-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C Goal 5)
48-D.	Related activities (see requirement for #42-D).		Page 37 (VI.D,E); Page 39 (VII)
48-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

Section E: Water Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
49	A statement as to whether the property is within and/or adjacent to an aquatic preserve or a designated area of critical state concern or an area under study for such designation. <i>If yes, provide a list of the appropriate managing agencies that have been notified of the proposed plan.</i>	18-2.018 & 18-2.021	Page 12 (II.B.7)
50	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding water resources, including water classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Water under Rule 62-302.700, F.A.C.	18-2.021	Page 20 (IV.B); Exhibits K, L
51	Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding swamps, marshes and other wetlands.	18-2.021	Page 21 (IV.B.4)
52	***Quantitative description of the land regarding an inventory of hydrological features and associated acreage. <i>See footnote.</i>	253.034	Page 20 (IV.B); Page 39 (VII)
53	Hydrological Preservation and Restoration	259.032 & 253.034	Page 20 (IV.B)
53-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 7); Page 20 (IV.B)
53-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 7)
53-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 7)
53-D.	Related activities (see requirement for #42-D).		Page 7 (I.C. Goal 7); Page 20 (IV.B)

53-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
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Section F: Historical, Archeological and Cultural Resources

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
54	**Location and description of known and reasonably identifiable renewable and non-renewable resources of the property regarding archeological and historical resources. <i>Include maps of all cultural resources except Native American sites, unless such sites are major points of interest that are open to public visitation.</i>	18-2.018, 18-2.021 & per DHR's request	Page 18 (III.B); Exhibit H
55	***Quantitative data description of the land regarding an inventory of significant land, cultural or historical features and associated acreage.	253.034	Page 18 (III.B); Exhibit H
56	A description of actions the agency plans to take to locate and identify unknown resources such as surveys of unknown archeological and historical resources.	18-2.021	Page 19 (III.C,D); Exhibit I
57	Cultural and Historical Resources	259.032 & 253.034	Page 17 (III)
57-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 7 (I.C. Goal 6)
57-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 7 (I.C. Goal 6)
57-C.	Measurable objectives (see requirement for #42-C).		Page 7 (I.C. Goal 6)
57-D.	Related activities (see requirement for #42-D).		Page 19 (III.C,D)
57-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

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

Section G: Facilities (Infrastructure, Access, Recreation)

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
58	***Quantitative data description of the land regarding an inventory of infrastructure and associated acreage. <i>See footnote.</i>	253.034	Page 12 (II.C); Exhibit D
59	Capital Facilities and Infrastructure	259.032 & 253.034	Page 12 (II.C.)
59-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-C.	Measurable objectives (see requirement for #42-C).		Page 8 (I.C. Goal 8); Page 12 (II.C.)
59-D.	Related activities (see requirement for #42-D).		Page 12 (II.C); Page 29 (V)
59-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V
60	*** Quantitative data description of the land regarding an inventory of recreational facilities and associated acreage.	253.034	Page 29 (V); Exhibit D
61	Public Access and Recreational Opportunities	259.032 & 253.034	Page 29 (V)
61-A.	Management needs, problems and a desired outcome (see requirement for # 42-A).	↓	Page 5 (I.C. Goal 2)
61-B.	Detailed description of both short and long-term management goals (see requirement for # 42-B).		Page 5 (I.C. Goal 2)
61-C.	Measurable objectives (see requirement for #42-C).		Page 5 (I.C. Goal 2)

61-D.	Related activities (see requirement for #42-D).		Page 11 (II.B.4); Page 17 (II.E.5,6); Exhibits A, B, C, D
61-E.	Budgets (see requirement for #42-E).		Page 13 (II.C.4); Exhibit V

Section H: Other/ Managing Agency Tools

Item #	Requirement	Statute/Rule	Page Numbers and/or Appendix
62	Place this LMP Compliance Checklist at the front of the plan.	ARC and managing agency consensus	✓
63	Place the Executive Summary at the front of the LMP. Include a physical description of the land.	ARC and 253.034	Page 1 (Executive Summary)
64	If this LMP is a 10-year update, note the accomplishments since the drafting of the last LMP set forth in an organized (categories or bullets) format.	ARC consensus	Page 3 (I.B); Exhibit A
65	Key management activities necessary to achieve the desired outcomes regarding other appropriate resource management.	259.032	Page 4 (I.C.); Page 39 (VII)
66	Summary budget for the scheduled land management activities of the LMP including any potential fees anticipated from public or private entities for projects to offset adverse impacts to imperiled species or such habitat, which fees shall be used to restore, manage, enhance, repopulate, or acquire imperiled species habitat for lands that have or are anticipated to have imperiled species or such habitat onsite. The summary budget shall be prepared in such a manner that it facilitates computing an aggregate of land management costs for all state-managed lands using the categories described in s. 259.037(3) which are resource management, administration, support, capital improvements, recreation visitor services, law enforcement activities.	253.034	Page 13 (II.C.4); Exhibit V
67	Cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired, include recommendations for cost-effective methods in accomplishing those activities.	259.032	Page 13 (II.C.4); Exhibit V
68	A statement of gross income generated, net income and expenses.	18-2.018	Page 13 (II.C.4); Exhibit V

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

TEN-YEAR LAND MANAGEMENT PLAN

FOR THE

LAKE TALQUIN STATE FOREST

GADSDEN, LEON, LIBERTY, AND WAKULLA COUNTIES



PREPARED BY THE

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

FLORIDA FOREST SERVICE

APPROVED ON

MONTH DD, 2024

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



Approved by:

Richard Dolan, Director
Florida Forest Service

Date

James Roberts, Chief
Forest Management Bureau

Date

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

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Optimal Management Boundary Map	Exhibit C
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Current FNAI Natural Communities and Cover Type Map	Exhibit Q
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Land Management Reviews (2014 & 2019).....	Exhibit S
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State Forest Summary Budget	Exhibit V
Arthropod Control Plans (Gadsden, Leon, Liberty, and Wakulla Counties).....	Exhibit W
Lines Tract Trail Plan	Exhibit X
Bloxham Campground Plan.....	Exhibit Y

LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

LEAD AGENCY: Florida Department of Agriculture and Consumer Services (FDACS), Florida Forest Service
COMMON NAME: Lake Talquin State Forest (LTSF)
LOCATION: Gadsden, Leon, Liberty, and Wakulla Counties
ACREAGE TOTAL: 19,174.59 acres

Historic Natural Communities	Approximate Acreage
Upland pine	6,181
Upland hardwood forest	4,497
Bottomland forest	3,136
Sandhill	1,977
Mesic flatwoods	1,495
Floodplain swamp	1,124
Wet flatwoods	427

Historic Natural Communities	Approximate Acreage
Alluvial forest	251
Baygall	181
Upland mixed woodland	120
Basin Swamp	91
Depression marsh	69
Shrub bog	47
Swamp lake	5

Note: Mapped acreage is slightly higher than official surveyed acres, which is an artifact of mapping boundary along open water (Lake Talquin).

TIITF LEASE AGREEMENT NUMBER: 3971 & 4211

USE: Single ____ Multiple X

MANAGEMENT AGENCY

Florida DACS, Florida Forest Service
Florida Fish and Wildlife Conservation Commission
Northwest Florida Water Management District
Department of State, Division of Historical Resources

RESPONSIBILITY

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

DESIGNATED LAND USE:

Multiple-Use State Forest

SUBLEASES:

Boy Scouts of America, Gadsden Parks and Recreation, Leon County Parks and Recreation

ENCUMBRANCES:

None

TYPE OF ACQUISITION:

Warranty Deed and Preservation 2000, Florida Forever, donations, and mitigation.

UNIQUE FEATURES:

Deep ravines occur on nearly every tract and contain plants and animals not commonly found in Florida except in relatively cool, moist ravines. Steephead slopes on the forest are unique geological features uncommon to most of Florida.

ARCHAEOLOGICAL / HISTORICAL:
MANAGEMENT NEEDS:

Forty-three (43) known sites
Ecosystem restoration, boundary survey and maintenance of Recreation & educational opportunities

ACQUISITION NEEDS:

38,739 Acres of Optimal Management Boundary

SURPLUS ACREAGE:

None

PUBLIC INVOLVEMENT:

Gadsden, Leon, Liberty, and Wakulla Counties, Management Plan Advisory Group Public Hearing, State Forest Liaison Committee Acquisition and Restoration Council - - - - -

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

ARC Approval Date: _____ TIITF Approval Date: _____

Comments: _____

I. Introduction

Lake Talquin State Forest (LTSF) consists of 19,174.59 acres in Leon, Gadsden, Wakulla, and Liberty counties. LTSF has been in public conservation since the 1970's and provides a forested buffer along much of Lake Talquin. Shaped by the Ochlockonee River and other tributaries, LTSF contains outstanding examples of slope and ravine systems, which are home to flora not found in much of Florida. Natural communities in LTSF include upland pine and hardwood forests, sandhill, flatwoods, and bottomland forest. This mosaic of natural communities hosts a wealth of plant and animal biodiversity.

A. General Mission and Management Plan Direction

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

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

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

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

B. Past Accomplishments

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

- Forest Management

- Conducted forest inventory averaging greater than 10% of total forest acres annually (1,936 average acres)
- Planted 617,973 containerized longleaf pines on 850 acres
- Harvested 56,666 tons of timber from approximately 1,650 acres
- Fire Management
 - Conducted prescribed burns totaling 38,178 acres
 - Maintained 7.8 miles of firelines
- Road / Boundary Management
 - Improved or rebuilt 18 miles of forest roads
 - Graded 472 miles of roads
 - Maintained 168 miles of forest boundary
- Recreation Management
 - Conducted annual Operation Outdoor Freedom (OOF) events
 - Hosted more than 3,014,308 day use and camping visitors on the forest
 - Designed, updated and replaced four informational kiosks at primary recreation sites, and added informational kiosks to three other tract entrances
 - Reorganized High Bluff Campground to improve visitor experience
 - Rebuilt fishing pier at High Bluff Recreation Area
 - Installed water well at Ft. Braden Trailhead for watering horses or dogs
- Biological Management
 - Actively controlled more than 18 invasive plant species on 400 acres
 - Removed 571 feral hogs
- Education / Public Outreach
 - Hosted 335 forest-related program events (local school programs, clubs, and professional groups)
 - Produced 5 radio, television, and / or print articles featuring forest activities
 - Hosted 24 research projects

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

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

The management activities listed below will be addressed within the ten-year management period and are defined as short-term goals, long-term goals, or ongoing goals. Short-term

goals are goals that are achievable within a two-year planning period, and long-term goals are achievable within a ten-year planning period. Objectives are listed in priority order for each goal. Other activities will be completed with minimal overhead expense and existing staff.

➤ **GOAL 1: Sustainable Forest Management**

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

Performance Measures:

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

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

Performance Measures:

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

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

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

Performance Measure: Number of visitor opportunities per day

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

Performance Measures:

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

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

Performance Measures:

- Liaison Committee remains organized
- Annual meetings continue

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

Performance Measures:

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

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

Performance Measure: Number of additional visitor opportunities evaluated

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

Performance Measures:

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

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

Objective 1: The LTSF currently contains approximately 9,600 acres of fire-dependent communities. LTSF staff will plan and conduct prescribed burns in a manner that benefits these fire-dependent natural communities within the forest. To achieve an average fire-return interval of two (2) to four (4) years for most fire-dependent communities, FFS will attempt to conduct prescribed burns on an average of approximately 2,500 to 3,800 acres per year. Currently, FFS staff estimates 9,569 acres at LTSF are within the desired fire-return interval. (Ongoing objective)

Performance Measures:

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

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

Performance Measures:

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

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

Performance Measures:

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

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

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

Performance Measure: Number of acres restored

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

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

Performance Measures:

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

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

Performance Measure: Number of species for which monitoring is ongoing

➤ **GOAL 5: Invasive Species Management and Control**

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

Performance Measures:

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

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

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

Performance Measure: Documentation of known sites

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

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

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

Performance Measure: Number of local staff trained as ARM monitors

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

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

Performance Measure: Percent compliance with Silviculture BMPs

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

Performance Measure: Assessment conducted

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

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

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

Objective 1: LTSF staff, along with help from volunteers and / or user groups, will continue maintenance of the Bear Creek Educational Center, picnic pavilions, 24 primitive camping sites, three (3) parking areas and trailheads, 32 miles of trails, and 40 miles of primary and secondary roads. (Ongoing objective)

Performance Measure:

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

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

Performance Measures:

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

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

Performance Measures:

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

II. Administration Section

A. Descriptive Information

1. Common Name of Property

The common name of the property is Lake Talquin State Forest (LTSF).

2. Legal Description and Acreage

LTSF is located approximately 8 miles west of Tallahassee, Florida in western Leon County, southeastern Gadsden County, northeastern Liberty County, and northwestern Wakulla County, Florida. The forest's boundaries are identified in Exhibit B.

The total acreage of LTSF is 19,174.59 acres. The property is located in all or part of Sections 1, 2, 11-14, 17-24, 26-35 of Township 1 North, Range 2 West, Sections 2, 3, 10, 11, 13-16, 21-28, 31, 32, 34-36 of Township 1 North, Range 3 West, Sections 14, 18, 27, 28, 33-35 of Township 1 North, Range 4 West, Sections 5-8 of Township 1 South, Range 3 West, Sections 1-5, 9, 11- 13, 16, 20, 21 of Township 1 South, Range 4 West, Section

36 of Township 2 North, Range 2 West, Section 27 of Township 2 North, Range 5 West, and Lots 1-3, 6-13, 19, 40, 41, 49, 50, 76-78, 80, 81 of the Little River Survey. Acreage acquired by funding source is identified in Table 1.

Table 1. LTSF Acreage by Funding Source

Funding Source	Acres
Donation	66.25
Florida Forever	1,164.41
Mitigation	62.60
Preservation 2000	4,075.64
Other*	13,805.69

* Remaining acreage acquired through other sources

A complete legal description of lands owned by the Board of Trustees of the Internal Improvement Trust Fund (TIITF) is on record at the LTSF Headquarters, Florida Department of Environmental Protection (FDEP), and the FFS State Offices in Tallahassee.

3. Proximity to Other Public Resources

Lands managed by state, federal, or local governments for conservation of natural or cultural resources that are located within approximately 18 miles of the LTSF are included in Table 2 and Exhibit F.

Table 2. Nearby Public Conservation Land and Easements

Tract	Agency	Distance
Joe Budd Wildlife Management Area	FWC	Adjacent N
Apalachicola National Forest	USFS	Adjacent S
Lake Talquin State Park	FDEP	Adjacent S
Elinor Klapp-Phipps Park	COT/NWFWMD	5 miles NE
Alfred B. Maclay Gardens State Park	FDEP	6 Miles NE
Lake Jackson Mounds Archaeological State Park	FDEP	6 miles NE
Tallahassee-St. Marks Historic Railroad State Trail	FDEP	9 Miles SE
Wakulla State Forest	FFS	12 Miles SE
Edward Ball Wakulla Springs State Park	FDEP	12 miles SE
L. Kirk Edwards Wildlife and Environmental Area	FWC	14 Miles SE
Torrey State Park	FDEP	15 Miles NW
Plank Road State Forest	FFS	17 Miles SE
Tate's Hell State Forest	FFS	17 Miles SW
St. Marks River Preserve State Park	FDEP	17 Miles SE
Apalachicola Bluffs and Ravines Preserve	TNC	18 Miles NW
Natural Bridge Battlefield Historic State Park	FDEP	18 Miles SE

COT – City of Tallahassee

FDEP – Florida Department of Environmental Protection

FFS – Florida Forest Service

NWFWMD – Northwest Florida Water Management Dist.

FWC- Florida Fish and Wildlife Conservation Commission

TNC- The Nature Conservancy

USFS – US Forest Service

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

In the 1970s, the Florida Power Corporation donated 13,553 acres to the TIITF. Subsequent additions include 5,240 acres of land purchased with Preservation 2000 and Florida Forever funds. The 492-acre Bear Creek Tract was purchased via the Land Acquisition Trust Fund and the remaining acres were acquired through other sources such as mitigation and utility easement replacement acres. All parcel acquisitions are identified in Table 3. Major tracts are depicted in Exhibit E.

Table 3. Parcel Acquisition

Parcel Name	Lease Date	TIITF Lease No.	County	Acres
Joe Budd	6/28/1993	3971	Gadsden	4,381.21
Midway	6/28/1993	3971	Gadsden	1,273.77
Hammock Creek	6/28/1993	3971	Gadsden	342.71
Highway 20	6/28/1993	3971	Leon	3,510.33
Lower Ochlockonee	6/28/1993	3971	Liberty	46.50
Oklawaha	6/28/1993	3971	Gadsden	169.00
Van Landingham	6/28/1993	3971	Gadsden	370.31
North Ochlockonee	6/28/1993	3971	Leon	1,819.13
South Ochlockonee	6/28/1993	3971	Leon	1,011.79
Goat Island	6/28/1993	3971	Gadsden	11.97
Cape Talquin	6/28/1993	3971	Leon	471.88
Bloxham	6/28/1993	3971	Leon	68.93
Girl Scout	6/28/1993	3971	Leon	68.93
Bear Creek	1/24/1994	3971	Gadsden	491.74
Fort Braden	12/01/1994	3971	Leon	1,256.46
Lines, Willis & Beasley	7/8/1996	3971	Gadsden	229.00
Lamb	7/8/1996	3971	Gadsden	315.20
Revell & Whitfield	7/8/1996	3971	Gadsden	134.50
Powell	7/8/1996	3971	Gadsden	122.00
Wainwright	4/6/1999	3971	Leon	62.60
Rocky Comfort Tract*	9/1/2000	4211	Gadsden	2,018.48
St. Joe Timberlands / Little River	3/22/2004	3971	Gadsden	569.06
Searcy	10/27/2005	3971	Wakulla	595.35
FGT	6/4/2014	3971	Gadsden	40.00
Gulf Power	8/3/2021	3971	Leon	26.25
High Bluff Landing	6/3/2022	3971	Gadsden	9.83
Pond Road**	6/3/2022	3971	Gadsden	-5.00
Nekoosa / Barrow	TBD	3971	Gadsden / Leon	1.52
Williams Landing	TBD	3971	Leon	1.90

* Multiple agency lease held by TIITF, FFS, and FWC

** Partial release of lease #3971

B. Management Authority, Purpose, and Constraints

1. Purpose for Acquisition

The goals for the acquisition of this property include:

- To conserve, protect, manage, and restore important ecosystems, landscapes and forests, especially if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, Recreation, timber, or fish and wildlife resources which cannot otherwise be accomplished through local and state regulatory programs.
- To provide areas, including Recreation trails, for natural-resource-based recreation.
- To conserve and protect native species habitat and/or endangered or threatened species.

2. Degree of Title Interest Held by the Board

The TIITF holds fee simple title to 19,174.59 acres of LTSF (lease agreements 3971 and 4211). Parts of the property have been subleased to the Boy Scouts of America, Gadsden Parks and Recreation, and the Leon County Parks and Recreation. Utility easements are held by the Florida Gas Transmission Company, City of Tallahassee, Talquin Electric, City of Midway, Duke Energy, Gulf Power, and several non-industrial private landowners requiring access to their property.

3. Designated Single or Multiple-Use Management

LTSF is managed under a multiple-use concept by the FFS, under the authority of Chapters 253 and 589, F.S. The FFS is the lead managing agency as stated in Management Lease No. 3971, with the exception of co-management with FDACS and FWC of the 2,018-acre Rocky Comfort Tract under Management Lease No. 4211.

Multiple-use management is the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, and water resources so they are utilized in the combination that will best serve the people of the state, making the most judicious use of the land for some or all these resources and considering the relative values of the various resources. Local demands, acquisition objectives, and other factors influence the array of uses that are compatible with and allowed on any specific area of LTSF. This management approach is believed to provide for the greatest public benefit, by allowing compatible uses while protecting overall forest health, native ecosystems, and the functions and values associated with them.

4. Revenue Producing Activities

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

- *Timber Harvests* – Timber harvests on LTSF will be conducted to improve forest health, promote wildlife habitat, restore plant communities, and provide additional benefits.
- *Recreation Fees* – Fees are currently collected for day-use fee areas, campgrounds,

annual passes, and vendor / special use permits.

- *Apiary Leases* – There are 8 active apiary lease sites on LTSF.
- *Firewood* – Permits are sold for the cutting and collection of firewood in designated areas of LTSF.
- *Miscellaneous Forest Product Sales* – Other miscellaneous forest product sales, including but not limited to worm harvesting (grunting) and pine straw raking may be considered.

5. Conformation to State Lands Management Plan

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

6. Legislative or Executive Constraints

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

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

7. Aquatic Preserve / Area of Critical State Concern

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

C. Capital Facilities and Infrastructure

1. Property Boundaries Establishment and Preservation

LTSF boundaries, 170.29 miles in total, are managed by state forest personnel in accordance with the guidelines of the State Forest Handbook. There are 70 gates throughout LTSF that require periodic maintenance. State forest boundaries are maintained by periodic clearing, repainting and reposting, and placement of state forest boundary signs by FFS personnel.

2. Improvements

Major FFS facilities on LTSF include the Tallahassee Forestry Center and Lake Talquin State Forest Headquarters and equipment maintenance / storage shops. Major recreation facilities include the Bear Creek Educational Center and multiple picnic pavilions. See Exhibit D for a map of the buildings and improvements at LTSF.

Buildings / Recreation infrastructure present on the LTSF include:

- High Bluff Restroom, 192 sq. ft
- Lines Tract Restroom, 70 sq. ft
- Lines Tract Pavilion, 884 sq. ft

- Bloxham Lumbershed, 988 sq. ft
- Bloxham Pavilion, 560 sq. ft
- Bloxham Pumphouse, 120 sq. ft
- Bloxham Residence, 1921 sq. ft
- Bear Creek Education Center, 3,408 sq. ft
- Bear Creek Barn, 1,435 sq. ft
- Bear Creek Shed, 170 sq. ft
- Bear Creek Storage Building, 504 sq. ft
- Bear Creek Picnic Pavilion, 884 sq. ft
- Bear Creek Restroom, 910 sq. ft
- Bear Creek Info Building, 437 sq. ft
- Talquin Office, 622 sq. ft
- Talquin Site Storage, 101 sq. ft
- Ft. Braden Lakeside Pavilion, 918 sq. ft
- Ft. Braden Trail Head Pavilion, 918 sq. ft
- Ft. Braden Restroom, 70 sq. ft

3. On-Site Housing

There are six mobile home / camper spaces on LTSF.

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

4. Operations Infrastructure

a. Operations Budget

For Fiscal Year 2022-2023, the total annual budget for LTSF was \$57,325.63. This amount includes expenses, contractual services, Other Personal Services Employment (OPS), etc. A summary budget for LTSF is contained in Exhibit V. Implementation of any of the activities within this management plan is contingent on availability of funding, other resources, and other statewide priorities.

b. Equipment

To carry out the mission of the FFS, equipment assigned to the LTSF includes: two pickup trucks, one dump truck, one all-terrain vehicle, one utility task vehicle, one farm tractor with various implements, one front-end loader, one motor grader, one backhoe, and one road tractor with lowboy trailer. Most of the equipment listed above is also used on two other state forests within the Tallahassee Forestry Center. Six medium dozers with transports and two Type VI engines are stationed at locations within LTSF, and although not directly assigned to LTSF, will be available for

resource management activities when not engaged in wildfire suppression or private landowner assistance.

c. Staffing

Two individuals are assigned to LTSF: one Forestry Supervisor II and one OPS Park Ranger. Other personnel from the Tallahassee Forestry Center (TFC) are used to assist with management activities at LTSF.

The Forestry Supervisor II will work to achieve the goals outlined in this management plan. Recreation planning and management activities as well as resource management and planning activities, such as trail flagging / identification, Recreation facility placement, timber cruising, and sale administration, etc., are the responsibility of the Forestry Supervisor II under the direction of the Forestry Operations Administrator and Center Manager. Forest operations, such as road maintenance, operations / Recreation facility maintenance, prescribed burning, etc., are the responsibility of the Forest Area Supervisors under the direction of the Forestry Operations Administrator.

To supplement the staff assigned to LTSF, the Forestry Supervisor and TFC Recreation Coordinator are responsible for recruiting interested volunteers who can bring needed experience and skills to assist with the management of the forest recreation program, as well as resource management activities.

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

D. Additional Acquisitions and Land Use Considerations

1. Alternate Uses Considered

No alternate uses are being considered at this time. Alternate uses will be considered as requests are made and will be accommodated as appropriate if they are determined to be compatible with existing uses and with the management goals and objectives of LTSF. Uses determined as incompatible include but are not limited to: water resource development projects, water supply projects, storm-water management projects, sewage treatment facilities, linear facilities, off highway vehicle use, dumping, mining, and oil well stimulation (e.g. hydraulic fracturing/fracking), or as determined by law, regulation, or other incompatible uses as described elsewhere in the management plan. Deadhead logging is not compatible and is not considered an appropriate use within or adjacent to the state forest boundaries.

2. Additional Land Needs

There are 38,739 acres adjacent to the property which should receive priority for acquisition because they would benefit the management of the property. The FFS will work with these property owners, on a willing seller basis, to acquire these parcels.

Purchasing of additional land within the optimal management boundary would facilitate restoration, protection, maintenance, and management of the natural resources on LTSF. See Exhibit C.

3. Surplus Land Assessment

On conservation lands where FFS is the lead manager, FFS assesses and identifies areas for potential surplus land. This assessment consists of an examination of resource and operational management needs, public access and recreational use, and GIS modeling and analysis.

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

4. Adjacent Conflicting Uses

During the development of this management plan, FFS staff identified and evaluated adjacent land uses, reviewed current local comprehensive plans, and future land use maps in making the determination there is an increasing number of mining sites adjacent to or in proximity of the forest, which is a conflicting adjacent land use. Additionally, FFS staff have met with adjacent landowners and maintain liaison with those landowners to ensure that any conflicting future land uses may be readily identified and addressed.

Residential development of adjacent property and adjoining county highways may hinder prescribed burning due to smoke management concerns.

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

5. Compliance with Local Comprehensive Plans

This plan was submitted to the Gadsden County, Leon County, Liberty County and Wakulla County councils for review and compliance with their local comprehensive plans. See Exhibit T.

6. Utility Corridors and Easements

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

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

Collocation of new linear facilities with existing corridors will be considered but will be used only where expansion of existing corridors does not increase the level of habitat

fragmentation and disruption of management and multiple-use activities. FFS will further encourage the use of underground cable where scenic considerations are desirable as well as encourage the development and use of wildlife crossings for unavoidable roadway development projects. Easements for such utilities are subject to the review and approval of the TIITF and the NFWFMD. Requests for linear facility uses will be handled according to the Governor and the Cabinet's linear facilities policy.

Currently, gas and electric utility rights-of-way exist on the North and South Ochlockonee, Highway 20, Midway and Joe Budd Tracts of LTSF. The FFS does not consider LTSF suitable for any new linear facilities.

E. Agency and Public Involvement

1. Responsibilities of Managing Agencies

FFS is the lead managing agency, responsible for overall forest management and public recreation activities, as stated in TIITF Management Lease number 3971. The FWC is co-manager with FFS on the 2,018-acre Rocky Comfort Tract as stipulated in TIITF Management Lease number 4211. Pursuant to the management lease, the lead managing agency may enter into further agreements or to subleases on any part of LTSF.

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

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

2. Law Enforcement

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

The FDACS Office of Agricultural Law Enforcement (OALE) will assist with open burning and wildfire investigations as needed. The Gadsden, Leon, Liberty and Wakulla counties Sheriff's Office provides additional assistance as needed.

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

3. Wildland Fire

The FFS has the primary responsibility for prevention, detection, and suppression of wildfires wherever they may occur. The FFS shall provide leadership and direction in the

evaluation, coordination, allocation of resources, and monitoring of wildfire management and protection (590.01, F.S.). The FFS also has the responsibility of authorizing prescribed burns (590.02 [1][i], F.S.).

4. Public and Local Government Involvement

This plan has been prepared by FFS and will be carried out primarily by the FFS. FFS responds to public involvement through liaison committees, management plan advisory groups, public hearings, and through ongoing direct contact with user groups. Land Management Review Teams, as coordinated by the Division of State Lands, have conducted reviews of management plan implementation in 2014 and 2019. See Exhibit S. The review team's recommendations were addressed in this plan, as appropriate.

The plan was developed with input from the LTSF Management Plan Advisory Group and was reviewed at a public hearing on September 27, 2023. A summary of the advisory group's meetings and discussions, as well as written comments received on the plan, are included in Exhibit U. The Acquisition and Restoration Council (ARC) public hearing and meeting serve as an additional forum for public input and review of the plan.

5. Volunteers

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

6. Friends of Florida State Forests

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

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

III. Archaeological / Cultural Resources and Protection

A. Past Uses

Prior Native American habitation is apparent at recorded archaeological sites on LTSF, and early European settlers cleared the land for agriculture. From the 1950s to the early 1970s, much of LTSF was leased for timber or cattle operations. In the mid-1970s, Florida Power Corporation notified St. Joe that their lease on the timber rights would soon be terminated since they were conveying the property to the State. St. Joe subsequently removed most of the merchantable timber over the next several years. From the time timber and cattle leases were established to the initial transfer of the property to the State in 1977, natural fire regimes were disrupted. These prior uses of the property and lack of fire management have resulted in degradation of natural communities on LTSF groundcover.

B. Archaeological and Historical Resources

A review of information contained in the Florida Department of State, DHR, Florida Master Site File has determined there are 37 recorded archaeological sites, 5 historical cemeteries, and 1 historical resource group within the designated area for LTSF. Currently, none of the known sites on LTSF are listed in the National Register of Historic Places, though three are likely eligible. See Table 4 and Exhibit H for a Cultural Resource Roster.

Table 4. Historical Sites on LTSF

Site ID	Site Name	Site Type
GD00113	NN	AR
GD00114	NN	AR
GD00125	Suber	AR
GD00303	Richlander Creek	AR
GD00310	Gadsden Station 7	AR
GD00406	P81-1	AR
GD00407	P81-2	AR
GD00460	Ochlockonee River West	AR
GD00701	Little River Village	AR
GD00702	Rocky Comfort Scatter	AR
GD00703	Rocky Comfort Homestead	AR
GD00704	Francis	AR
GD00705	Animal Pen	AR
GD00706	Coral Bend	AR
GD00707	Lone Sherd	AR
GD00708	Bunting	AR
GD00710	Five Points	AR
GD00731	Antioch Church Cemetery	CM
GD00756	Green Parrot	AR
GD00865	Atw-406.58-01	AR
GD01006	Harden Cemetery	CM
GD02007	Hopkins-1	AR
LE00014	Unnamed	AR
LE00553	Ochlockonee River Recreation Area	AR
LE00566	Ranger	AR
LE00567	Wild Dog	AR
LE01673	Old House Point	AR
LE01674	Ochlockonee South	AR
LE01676	Rest Area South	AR
LE01677	Rest Area North	AR
LE01799	Northwest Point	AR
LE01807	Cape Talquin 2	AR
LE01808	Cape Talquin 3	AR
LE01896	Russell Cemetery	CM
LE02009	Lake Talquin Turpentine Camp	AR

Site ID	Site Name	Site Type
LE02010	Tenant House 1	AR
LE02103	P125-1	AR
LE02146	Muddy Jenn	AR
LE02300	Whatley Family	CM
LE05209	Pensacola and Georgia Railroad	RG
LE05681	FL-Leon-002-1AR-02	AR
LE05685	FL-Leon-002-1AR-03	AR
LE05693	Geddie Cemetery	CM

AR – Archaeological Site; CM – Historical Cemetery; RG – Historical Resource Group

C. Ground Disturbing Activities

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

D. Survey and Monitoring

Currently, five local district FFS staff have been trained by DHR as Archaeological Resource Management (ARM) monitors. FFS will pursue opportunities for additional personnel to receive ARM monitor training. FFS will consult with public lands archaeologists at DHR as necessary to determine an appropriate priority and frequency of monitoring at each of the listed sites, and any protection measures that might be required. Unless required on a more frequent basis, all archaeological and historical sites within the state forest will be monitored at least annually. FFS field staff will monitor the listed sites to note condition and any existing or potential threats.

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

IV. Natural Resources and Protection

A. Soils and Geologic Resources

1. Resources

Soil information for LTSF was obtained from the United States Department of Agriculture Natural Resources Conservation Service (NRCS). The major soils listed by the NRCS include: Albany complex, Blanton sand, Rutlege soil, Bibb soil, and Ridgewood sand. Detailed information on all soils present on LTSF may be found in Exhibit J.

2. Soil Protection

Currently, there are no significant soil erosion problems at LTSF. Management activities will be executed in a manner to minimize soil erosion. As problems arise, corrective action will be implemented by FFS staff under the direction of the FFS Forest Management Bureau in conjunction with recommendations as contained in the most current version of the Florida Silviculture Best Management Practices Manual.

B. Water Resources

1. Resources

Water resources on LTSF include the Ochlockonee River which runs through much of the state forest and eventually forms Lake Talquin, a reservoir which in large part is surrounded by LTSF. The Little River flows into Lake Talquin from the north and forms the western boundary of the Joe Budd Tract. Numerous creeks and tributaries flow through the forest into Lake Talquin, the Ochlockonee River, or the Little River. Many tributaries originate their flow on LTSF. See Exhibit K for map of the water resources on LTSF.

2. Water Classification

The FDEP Standards Development Section reports that all of the surface waters within, adjacent to, or within five (5) miles of LTSF are classified as Class III Waters according to Rule 62-302.400, F.A.C.

According to subsection 62-302.700(9), F.A.C., three FDEP-designated Outstanding Florida Waters (OFWs) are within or adjacent to LTSF. These are the Ochlockonee River Special Water OFW, the Bear Creek State Recreation Area, and the Lake Talquin State Recreation Area. Nearby OFWs include the Lake Jackson Aquatic Preserve and the St. San Luis Program Area. See Exhibit K.

3. Water Protection

The acquisition and management of this public land had among its objectives to optimize ecological restoration, protect and manage existing natural resources, and facilitate sensible public use. Concern over a continuous usable source of fresh water requires emphasis on protecting this vital resource. Water resource protection measures, at a minimum, will be accomplished through the use of Best Management Practices (BMPs) as described in the most current version of Silviculture Best Management Practices manual.

4. Swamps, Marshes, and Other Wetlands

In addition to the waterways, approximately 4,854 acres in the following seven (7) hydric communities make up about 25% of the LTSF acreage: alluvial forest, basin swamp, baygall, bottomland forest, depression marsh, floodplain swamp, and shrub bog. Maintenance of naturally occurring wetland communities is a high priority and will be accomplished through appropriate management activities, including prescribed fire and adherence to Silviculture BMPs.

5. Wetlands Restoration

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

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

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

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

6. Florida Department of Environmental Protection Basin Management Action Plan

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

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

A vast portion of LTSF resides in the Ochlockonee-St. Marks BMAP. See Exhibit L.

C. Flora and Fauna Resources

1. Rare, Endangered, and Threatened Species

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

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

Common Name	Scientific Name	FNAI Global Rank*	FNAI State Rank*	Federal Status*	State Status *
Amphibians					
Apalachicola dusky salamander	<i>Desmognathus apalachicola</i>	G4	S2S3	N	N
Four-toed salamander	<i>Hemidactylum scutatum</i>	G5	S2	N	N
One-toed amphiuma	<i>Amphiuma pholeter</i>	G3	S3	N	N
Arachnids					
Red-legged purse-web spider	<i>Sphodros rufipes</i>	G4	S3	N	N
Birds					
Yellow-crowned night-heron	<i>Nyctanassa violacea</i>	G5	S3	N	N
Fish					
Insects					
Gray petaltail	<i>Tachopteryx thoreyi</i>	G4	S3	N	N
Hirsute mayfly	<i>Attenella attenuata</i>		S1S2	N	N
Say's spiketail	<i>Cordulegaster sayi</i>	G3	S3	N	N
Seminole skipper	<i>Hesperia attalus slossonae</i>	G3G4T3	S3	N	N
Mollusks					
Purple bankclimber	<i>Elliptioideus sloatianus</i>	G2	S1S2	T	FT
Plants					
Florida flame azalea	<i>Rhododendron austrinum</i>	G3	S3	N	E
Florida merrybells	<i>Uvularia floridana</i>	G3	S1	N	E
Florida spiny-pod	<i>Matelea floridana</i>	G2	S2	N	E
Flyr's brickell-bush	<i>Brickellia cordifolia</i>	G3	S2	N	E
Little brown jug	<i>Asarum arifolium</i>	G5	S3	N	T

Mountain laurel	<i>Kalmia latifolia</i>	G5	S3	N	T
Piedmont water milfoil	<i>Myriophyllum laxum</i>	G3	S3	N	N
Pyramid magnolia	<i>Magnolia pyramidata</i>	G4	S3	N	E
Silky camellia	<i>Stewartia malacodendron</i>	G4	S3	N	E
Sweet-shrub	<i>Calycanthus floridus</i>	G5	S2	N	E
Sandhill sedge	<i>Carex tenax</i>	G5	S3	N	N
Turk's cap lily	<i>Lilium superbum</i>	G5	S1	N	E
Zigzag silkgrass	<i>Pityopsis flexuosa</i>	G3	S3	N	E
Reptiles					
American alligator	<i>Alligator mississippiensis</i>	G5	S4	SAT	FT(S/A)
Barbour's map turtle	<i>Graptemys barbouri</i>	G2	S2	N	ST
Eastern diamondback rattlesnake	<i>Crotalus adamanteus</i>	G4	S3	N	N
Gopher tortoise	<i>Gopherus polyphemus</i>	G3	S3	C	ST
Pine snake	<i>Pituophis melanoleucus</i>	G4	S3	N	ST
Mammals					
Florida black bear	<i>Ursus americanus floridanus</i>	G5T4	S4	N	N
Southeastern fox squirrel	<i>Sciurus niger</i>	G5T5	S3	N	N

*** STATUS / RANK KEY**

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

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

Federal Status (USFWS): LE = Listed Endangered, LT = Listed Threatened, N = Not currently listed, C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened. SAT, T(S/A) = threatened due to similarity of appearance. A species that is threatened due to similarity of appearance with another listed species and is listed for its protection. Species listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation

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

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

2. Florida Natural Areas Inventory

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

a. Element Occurrences

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

Documented habitat includes: alluvial forest, basin swamp, baygall, bottomland forest,

depression marsh, floodplain swamp, mesic flatwoods, pine plantation, sandhill, shrub bog, successional hardwood forest, successional hydric shrubland/forest, swamp lake, upland hardwood forest, upland mixed woodland, upland pine and wet flatwoods.

b. Likely and Potential Habitat for Rare Species

In addition to documented occurrences, other rare or threatened species may occur near LTSF. See Exhibit M.

c. Land Acquisition Projects

Hosford Chapman's Rhododendron Protection Zone

Portions of LTSF's Optimal Management Boundary are within the Hosford Chapman's Rhododendron Protection Zone. The project, sponsored by The Nature Conservancy and FNAI, is a proposal for a conservation easement to restore, maintain, and protect in perpetuity the native ecosystems for one of only two core populations of the rare Chapman's Rhododendron, a federally-listed plant that is only found in three Florida counties: Gulf, Gadsden and Liberty. On the western portion of the project, the easement would cover approximately 70 percent of the area where Chapman's Rhododendron is known to occur. The eastern portion has greater potential for diverse forms of resource-based recreation. See Exhibit G.

Little River Conservation Area

Purchase of the interest in the 2,085-acre Little River Conservation Area located approximately five (5) miles north of LTSF would protect a portion of the Little River watershed while maintaining a scenic and undeveloped rural area outside of an expanding urban area. A conservation easement would preserve habitat for wildlife, protect forested land, and provide support for ongoing efforts to restore the property to a natural longleaf pine community. Due to its proximity of LTSF and Joe Budd Wildlife Management Area, managed by FWC, acquiring a conservation easement in this area would also enhance the coordination and completion of other land acquisition projects. See Exhibit G.

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

3. Florida Fish and Wildlife Conservation Commission

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

Other findings by the FWC include:

- a.** The property is located within one mile of a Strategic Habitat Conservation Areas for swallow-tailed kite (*Elanoides forficatus*), Cooper's hawk (*Accipiter cooperii*), and Florida black bear (*Ursus americanus floridanus*).
- b.** LTSF is located within an area of high Species Richness which indicates the total number of species within potential habitat identified in a specific location.

- c. LTSF is located within and in close proximity to multiple Priority Wetlands, which are wetlands significant to listed wetlands-dependent vertebrates.

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

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

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

4. Game Species and Other Wildlife

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

LTSF includes four Wildlife Management Areas (WMA) open for hunting: Joe Budd WMA, comprised of 11,173 acres in Gadsden County; Ochlockonee River WMA, comprised 2,790 of acres in Leon County; Talquin WMA with 3,053 acres in Leon County; and the Searcy Tract, which is included within the Apalachicola WMA and is located in Wakulla County. Management of these areas will be directed to the enhancement of biological diversity and species composition consistent with existing natural community types. Such communities will be restored and / or maintained through habitat management. All biological resources will be managed to maintain diversity.

Notable wildlife species inhabiting LTSF include red-shouldered hawk (*Buteo lineatus*), bald eagle (*Haliaeetus leucocephalus*), osprey (*Pandion haliaetus*), gopher tortoise (*Gopherus polyphemus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), white-tailed deer (*Odocoileus virginianus*), fox squirrel (*Sciurus niger*), and wild turkey (*Meleagris gallopavo*).

FFS and FWC cooperatively maintain approximately 159 acres of permanent wildlife openings and planted food plots on the LTSF. Wildlife openings and food plots are established and maintained in accordance with the FFS State Forest Handbook.

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

5. Survey and Monitoring

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

a. Gopher Tortoises

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

The FFS follows and utilizes the Best Management Practices for gopher tortoises to assist in meeting management objectives for both the species and the communities in which it is found.

b. Florida Black Bear

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

c. Listed Plant Species

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

d. Other Rare Biota Surveys

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

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

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

6. Gopher Tortoise Recipient Site Feasibility Assessment

The FFS has assessed the feasibility of establishing a gopher tortoise recipient site on LTSF. As of 2018, FWC had their contractor conduct a pilot Line Transect Distance Sampling (LTDS) project on portions of LTSF and the adjacent Joe Budd WMA. At that time, the survey resulted in a very low encounter rate (no tortoises were observed)

despite identification of over 10,000 acres of potential habitat. Therefore, no full LTDS survey was ever scheduled for LTSF as the low population did not warrant a full survey.

In the fall of 2021, LTSF staff were approached by FWC staff inquiring about the potential of establishing recipient sites on the forest. Several different options were discussed, but ultimately FFS decided against moving forward to establish recipient site(s) due to logistical constraints of implementing and permitting the site(s) and some conflicts with primary management objectives (i.e., young pine plantations). Even though a site was not established back in 2021, staff on LTSF have identified three parcels on the Lines Tract totaling 197 acres and two parcels on the Bear Creek Tract totaling 65 acres, which contains suitable soils and could feasibly be established as a recipient site, though the baseline population density would need to be established first.

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

D. Sustainable Forest Resources

FFS practices sustainable multiple-use forestry to meet LTSF resource needs and values of the present without compromising the similar capability of the future. Sustainable forestry involves practicing a land stewardship ethic that integrates the reforestation, managing, growing, nurturing, and harvesting of trees for useful products with the conservation of soil, air and water quality, wildlife and fish habitat, and aesthetics. This is accomplished by maintaining and updating accurate estimates of standing timber in order to assure that the timber resources retain their sustainability. Forest inventories will be updated on a continual basis according to guidelines established by the FFS Forest Management Bureau.

E. Beaches and Dune Resources

No beaches or dunes occur on the LTSF.

F. Mineral Resources

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

G. Unique Natural Features and Outstanding Native Landscapes

Deep ravines occur on nearly every tract and contain plants and animals not commonly found anywhere else in Florida. Steephead slopes on LTSF are unique geological features uncommon to most of Florida.

H. Research Projects / Specimen Collection

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

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

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

1. Bigelow – The Jones Center at Ichauway. 2020. Investigation of vulnerability of planted longleaf pines to windstorms on LTSF.
2. Anderson – Florida State University (FSU). 2018-2020. Collection of plant specimens not currently vouchered in a county for FSU's Robert K. Godfrey Arboretum, and collection of plant species for research material.
3. Conover/Martini – University of Florida (UF). 2018-2020. Investigation of ecological relationships and impacts between invasive ambrosia beetles and North Florida forest systems on LTSF; investigation of the ecological impacts of red bay ambrosia beetles and laurel wilt, management strategies for red bay ambrosia beetles, and ecological interactions between generalist and specialist ambrosia beetles.
4. Blackburn / Shuman / Orange – UF. 2016-2018. Research on the seroprevalence of epizootic hemorrhagic disease virus and blue tongue virus, as well as the movement patterns of wild Florida deer on LTSF proximate to an ongoing captive deer study.
5. Gott/Miller – UF. 2018-2020. Research on the biology and systematics of the Florida duskywings; solidify the known ranges of *Erynnis brizo* and *E. b. somnus*, and to determine if these taxa deserve to be elevated to specific rank based on morphological, genetic, and ecological factors.
6. Schoonover/Weakley – University of North Carolina / North Carolina Botanical Garden. 2017-2018. Collection of plant material for genetic and morphological analyses and to examine *Trichostema* (*bluecurl*) populations throughout the southeastern United States, to better understand species distribution and evolutionary trends.
7. Sloyer/Burkett-Cadena – UF. 2017. Ecological niche modeling the potential geographic distribution of four *Culicoides* species of veterinary significance in Florida.
8. Erram – University of Florida / Institute of Food and Agricultural Sciences. 2019. Identification and characterization of larval habitats of biting midges (a.k.a. “no-see-ums”) in the genus *Culicoides* (Family *Ceratopotonidae*) that may transmit bluetongue virus and/or epizootic hemorrhagic disease virus.
9. Hokanson/Sherwood – Univ. of Minnesota. 2017. Collection of samples from oak leaf hydrangea (*Hydrangea quercifolia*) plants within LTSF to conduct range-wide genetic diversity analysis of the species to inform future conservation and breeding efforts.
10. Hoban – Morton Arboretum. 2017. Collection of pyramid magnolia (*Magnolia pyramidata*) leaves from LTSF for genetic analysis and to better understand the genetic diversity of this species, and to provide better understanding of the sample size needed to preserve the full wild, genetic diversity of rare plant species in ex situ collections, such as those in botanic gardens.

11. Peterson – Bok Tower Gardens. 2017. Collection of leaves from two *Warea* species (*Warea sessilifolia* and *W. cuneifolia*) for genetic research at LTSF to investigate genetic distances within the genus.
12. Duncan – UF. 2016. Research on the ecology, natural history, distribution, and population dynamics of the southeastern pocket gopher (*Geomys pinetis*) to provide specific management recommendations for restoring and maintaining highly functional habitat conditions, maintaining connectivity among populations, and reintroducing southeastern pocket gophers into appropriate habitat.
13. Ksepka/Fishbein – Oklahoma State University. 2016. Tissue sampling for genetic research on species within the genus *Asclepias* (milkweeds).
14. Klassen/Lee – University of Connecticut. 2016. Investigation of local adaptation between the fungus growing ant *Trachymyrmex septentrionalis* and its microbial symbioses.
15. Funderburk/Sprague – UF. 2015. Research on leaf litter thrips associated with *Magnolia grandiflora* on LTSF, including Bear Creek Educational Forest; determination of the seasonal abundance of *Adraneothrips* spp. and *Elaphrothrips* spp. in association with magnolia in northern Florida.
16. Molgo – UF. 2013. Collection of plant samples within the genus *Callisia* for genetic study and propagation.
17. Keppner/Keppner – Keppner Biological Service. 2015-2016. Research on the status assessment and range of dragonfly species Say's spiketail (*Cordulegaster sayi*) in Florida on LTSF to provide data for the USFWS as part of the Coordinated Candidate Species Status Assessment on imperiled or potentially listed species.
18. Scheick/McCown – FWC. 2014. Research estimating Florida black bear (*Ursus americanus floridanus*) abundance in Florida.

I. Ground Disturbing Activities

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

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

V. Public Access and Recreation

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

protecting resources and practicing multiple-use management.

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

A. Existing

LTSF offers a variety of Recreation opportunities on its many diverse tracts of land. Hiking, camping, horseback riding, biking, picnicking, birding, and nature study can be enjoyed using existing service roads, historic road beds, and established trails. LTSF is part of the Great Florida Birding and Wildlife Trail as well as the Big Bend Scenic Byway which is a designated Florida Scenic Highway. Freshwater fishing can be pursued from the shore or by boat, and several public boat ramps are located on Lake Talquin. Canoes, kayaks, and power boats are permitted on the lake. See Exhibit D for a map of the Recreation, Facilities, and Improvements.

Bear Creek Tract

Hiking and nature trails on this 492-acre tract meander through many natural communities, including wetlands, sandhills, and steep ravines. Amenities include a picnic shelter, group campground, restrooms, drinking fountains, and four nature trails, including an audio-enhanced Living Forest Trail and arboretum.

Bloxham Recreation Area

The Bloxham Recreation Area is a 140-acre scenic high bluff located on the southwest side of Lake Talquin. Recreation opportunities at this day-use and reservation-only area include boating, canoeing, kayaking, fishing, and picnicking. Facilities include a boat ramp, fishing dock, restroom, and pavilion.

Fort Braden Tract

A range of different ecosystems and scenic views of Lake Talquin are found on the 1,242-acre Fort Braden Tract. Recreation opportunities include primitive camping, hiking, and horseback riding. Amenities include picnic pavilions, a trailhead restroom, and paddle-in or hike-in primitive campsites for individual and group camping.

High Bluff Recreation Area

On the southern end of the Joe Budd Tract, this lakeside recreation area features camping, fishing, boating, canoeing, kayaking, and picnicking. Facilities include a boat ramp, fishing pier, restrooms, and tent- and RV-accessible primitive campsites.

Lines Tract

The 9.3-mile W.D. Lines Trail System is for hiking and off-road biking and has two loops: Talquin Loop and Longleaf Loop. The Lines Youth Group Camp is a primitive

group campsite accessible by a 2-mile trail (bike or hike) or by vehicle and service roads. A picnic pavilion and vaulted restroom are available at the trailhead.

B. Planned

FFS will continue to assess plans for additional Recreation opportunities based on demand, carrying capacity, demographics, and impact to the resources on LTSF. FFS encourages public participation and partnerships with recreational user groups in support of LTSF's recreational goals. All planned improvements may be completed as staff and funding permits. Both terrestrial and aquatic resources and related activities will be evaluated. Any plans will be incorporated into the Five-Year Outdoor Recreation Plan on file at LTSF.

Trails: Suitable locations will be considered for additional Recreation trails throughout the planning period. The construction, maintenance, and improvement of all trails on LTSF will be on-going. Current plans are to assess the need and feasibility of transitioning the Line's Tract Biking Trails into a multi-use trail system that would encompass horseback riding, biking, and hiking. The project will use as much of the existing trails as possible to reduce the overall footprint, however, this change in trail use would result in the need for expanding the existing parking area to accommodate several horse trailers, create a need for new bridges or low water crossings, and update kiosk panels and signs to reflect the additional usership. See Exhibit X.

Information & Education: Environmental education activities on LTSF are displayed on kiosks and through self-guided tours at the Bear Creek Educational Forest. Kiosks will be installed, replaced, or repaired as needed. During this planning period, the Bear Creek Educational Forests Information Building will be assessed to determine if its content needs to be updated, changed, or replaced if necessary.

Camping: During this ten-year planning period, FFS will assess the feasibility of additional campgrounds, campsites, or group campsites. The parking and access to the High Bluff Campground fishing pier will be evaluated, and the FFS will assess the feasibility of redesigning and constructing new access ramps to meet current ADA standards. A new campground at the Bloxham Tract is planned to include up to 14 new primitive campsites, a pavilion, a restroom and shower house, a canoe and kayak launch, and electrical hook up for the campground site plan. See Exhibit Y.

Operation Outdoor Freedom (OOF): Special events designed to provide nature based outdoor recreation activities for U.S. military veterans with service connected disabilities will continue to take place throughout the forest. Current events include guided game hunts, but other activities will be considered.

The Florida Forest Service will handle permitting requests for Recreation activities.

C. Hunter Access

Regulated hunting and fishing on LTSF are managed cooperatively with the FWC. Hunting season dates, limits, and methods are established annually by FWC, in cooperation with FFS. Joe Budd WMA, Ochlockonee River WMA, and Talquin WMA regulations are updated annually and are identified in the current WMA brochures provided by FWC at

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

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

D. Education

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

VI. Forest Management Practices

A. Prescribed Fire

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

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

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

The prescribed burning program developed for LTSF produces multiple benefits. The objectives of prescribed burning on LTSF include facilitating forest management operations, enhancing wildlife and listed species habitat; decreasing fuel loading, enhancing public safety, and restoring, maintaining, and protecting all native ecosystems, ecotones, and their ecological processes. FFS personnel are responsible for planning and implementing the annual prescribed burn program for LTSF, which will consist of dormant and growing season burns, with an emphasis on growing season burns as applicable. An update to the Five-Year Prescribed Burning Management Plan is developed each year by FFS staff. All burns

conducted on LTSF are executed by Florida Certified Prescribed Burn Managers in accordance with Chapters 590.125, F.S. and 5I-2 F.A.C.

According to FNAI, historic, fire-dependent natural communities on LTSF are estimated to have occupied 10,650 acres and most burned at approximately 2 to 4-year intervals. Currently, there are 9,440 acres suitable for prescribed burning. Some historically fire-dependent communities have been altered through past land use practices, which inhibits the ability to meet objectives with prescribed fire alone. Based on current conditions and management objectives, LTSF will plan for 2,500 to 3,800 acres to be prescribed burned annually. As restoration efforts progress, acreage suitable for prescribed burning will increase. Meeting prescribed fire goals will be largely dependent on weather conditions, available personnel, and statewide emergency situations such as wildfires, hurricanes, and other natural disaster response and relief. Currently it is estimated that approximately 9,440 acres of LTSF are within the desired fire-return interval.

1. Fire Management

The fire management plan serves as a working tool and an informational document for LTSF. The plan provides guidelines regarding wildfire suppression and prescribed fire management. It will specify burn units, burn unit prescriptions, appropriate fire-return intervals, and fire pre-suppression planning. The plan may be reviewed and amended as necessary.

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

a. Prescribed Fire: Prescribed fire is the most important land management tool, both ecologically and economically, for managing vegetation and natural communities and perpetuating existing wildlife populations in Florida. Forest operation records and staff experience should be combined with the FNAI inventory and assessment (2017) to identify areas that may require mechanical or chemical treatments in conjunction with prescribed fire to restore a more natural vegetative structure.

b. Burn Unit Plans: Each prescribed fire will be conducted in accordance with FFS regulations and state law (Chapter 5I-2 F.A.C., Chapter 590, F.S.) and have a burn unit plan (or prescription). Each prescription will contain, at a minimum, the information, as required by Section 590.125(3), F.S., needed to complete the FFS Prescribed Burn Plan Form FDACS 11461.

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

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

B. Wildfire Prevention and Mitigation Strategies

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

FFS has three paramount considerations regarding wildfires, and these are listed in priority order:

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

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

1. Suppression Strategies

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

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

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

2. Smoke Management

Caution will be exercised to prevent a public safety or health hazard from the smoke of any prescribed burn or wildfire. Prescribed burns must pass the smoke screening

procedure and be conducted by a certified burner. If smoke threatens to cause a safety hazard, then direct, immediate suppression action will be taken.

3. Fire Breaks and Firelines

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

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

4. Sensitive Areas

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

5. Firewise Communities

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

6. Adjacent Neighbor Contacts

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

7. Post-Burn Evaluations

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

C. Sustainable Forestry and Silviculture

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

1. Strategies

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

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

2. Silvicultural Operations

Silvicultural operations on LTSF will be directed toward improving forest health, wildlife habitat, ecological and economical sustainability, as well as toward recovery from past management practices prior to state acquisition that are not in accordance with the objectives of this plan. Stands of off-site species with merchantable volume will be scheduled for harvest, followed by reforestation with the appropriate tree species. Herbicide applications may be necessary to control woody competition and to re-establish desired native species of both overstory and groundcover. Site preparation methods may include prescribed fire, mechanical vegetation control, and / or herbicide applications. Herbicides used will be registered for forestry use by the U.S. Environmental Protection Agency (EPA) and will not adversely affect water resources.

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

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

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

3. Forest Inventory

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

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

4. **Timber Sales**

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

D. **Invasive Species Control**

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

On-going maintenance and monitoring strategies are outlined in the Five-Year Ecological Management Plan which is developed to locate, identify, and control invasive plant species. Occurrences of invasive species are recorded in the LTSF GIS database and are monitored and treated annually as funding permits. The GIS database is updated as new infestations are discovered.

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

FFS will enlist support from FWC in efforts to control invasive animals. Feral hogs (*Sus scrofa*) are present on LTSF and are currently being trapped on the Rocky Comfort and Joe Budd Tracts, through a contract between FWC and USDA Wildlife Services. FWC has issued a feral hog control permit to FFS for LTSF and FFS will allow for feral hog removal on LTSF through trapping and hunting as necessary.

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

Table 6. Invasive Plant Species Occurring on LTSF

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Increasing /Decreasing
Air potato	<i>Dioscorea bulbifera</i>	Spot Treatment with herbicide	<1	Stable
Camphor tree	<i>Cinnamomum camphora</i>	Hack and Squirt	1	Stable
Chinaberry	<i>Melia azedarach</i>	Hack and Squirt	1 – 2	Stable
Chinese privet	<i>Ligustrum sinense</i>	Hack and Squirt	1 – 2	Stable

Common Name	Scientific Name	Treatment Strategy	Acres Impacted	Increasing /Decreasing
Chinese tallow	<i>Sapium sebiferum</i>	Hack and Squirt	1 – 2	Stable
Chinese wisteria	<i>Wisteria sinensis</i>	Hack and Squirt	1 – 2	Stable
Cogongrass	<i>Imperata cylindrical</i>	Spot Treatment with herbicide	1 – 2	Stable
Coral ardisia	<i>Ardisia crenata</i>	Hack and Squirt	1 – 2	Stable
Golden bamboo	<i>Phyllostachys aurea</i>	Spot Treatment with herbicide	<1	Stable
Japanese climbing fern	<i>Lygodium japonicum</i>	Spot Treatment with herbicide	70	Increasing
Japanese honeysuckle	<i>Lonicera japonica</i>	Hack and Squirt	<1	Stable
Kudzu	<i>Pueraria labata</i>	Spot Treatment with herbicide	<1	Stable
Mimosa	<i>Albizia julibrissin</i>	Hack and Squirt	1 – 2	Stable
Nandina	<i>Nandina domestica</i>	Spot Treatment with herbicide	<1	Stable
Tree-of-Heaven	<i>Ailanthus altissima</i>	Hack and Squirt	<1	Stable
Tung oil tree	<i>Vernicia fordii</i>	Hack and Squirt	<1	Stable
Wild taro	<i>Colocasia esculenta</i>	Lakeshore*	<1	Unknown

* Non-accessible

E. Insects, Disease, and Forest Health

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

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

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

F. Use of Private Land Contractors

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

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

VII. Proposed Management Activities for Natural Communities

In 2017, FNAI completed an inventory and natural community mapping project on LTSF. Current and historic natural community cover types can be found in Exhibits Q and R, and Table 7. The inventory included managed and altered community types which are habitats that have been impacted by humans and do not fit into FNAI's Natural Community Classification. See Tables 8 and 9.

Table 7. Natural Community Types

Community Type	Historic Acres*	Current Acres*
Alluvial forest	251	251
Basin swamp	91	90
Baygall	181	182
Bottomland forest	3,136	3,106
Depression marsh	69	58
Floodplain swamp	1,124	1,120
Mesic flatwoods	1,495	1,271
Sandhill	1,977	1,561
Shrub bog	47	47
Swamp lake	5	5
Upland hardwood forest	4,497	4,286
Upland mixed woodland	120	113
Upland pine	6,181	5,359
Wet flatwoods	427	415
Managed and other landcover types	0	1,737
TOTAL **	19,601	19,601

* Note rounding errors exist.

** Mapped acreage is slightly higher than official surveyed acres, which is an artifact of mapping boundary along open water (Lake Talquin).

Table 8. Managed Community Types

Community Type*	Current Acres
Pine plantation	583
TOTAL	583

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

Table 9. Other Altered Landcover Types

Landcover Type*	Current Acres**
Clearing/regeneration	158
Developed	39
Impoundment	15
Road	207
Successional hardwood forest	515
Successional hydric shrubland/forest	8
Utility corridor	96
Wildlife food plot	116
TOTAL	1,154

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

** Note rounding errors exist.

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

Table 10. Prescribed Fire Interval Guide on LTSF

Habitat Type	Historic Fire Return Intervals**	LTSF Fire Frequency Goal (Local)	Comments
Alluvial forest	N/A	N/A	
Basin swamp	10-20 years	10-20 years	Ecotones burned per frequency of adjacent upland habitat type.
Baygall	N/A	N/A	
Bottomland forest	N/A	N/A	
Depression marsh	N/A	N/A	Ecotone burned at frequency of adjacent community type. .
Floodplain swamp	N/A	N/A	
Mesic flatwoods	2 – 4 years	2 – 4 years	
Sandhill	1 – 3 years	2 – 4 years	Conditions vary greatly, especially in planted pine. Frequent growing season burns.
Shrub bog	10 – 20 years	N/A	Ecotones burned per frequency of adjacent habitat type.
Swamp lake	N/A	N/A	
Upland hardwood forest	N/A	N/A	

Habitat Type	Historic Fire Return Intervals**	LTSF Fire Frequency Goal (Local)	Comments
Upland mixed woodland	2 – 20 years	2 – 4 years	
Upland pine	2 – 4 years	2 – 4 years	Conditions vary greatly, especially in planted pine. Frequent growing season burns.
Wet flatwoods	3 – 10 years	2 – 4 years	

* Includes restoration community acreage

** As determined by FNAI

The following community descriptions, existing condition descriptions, and management recommendations are taken from a 2017 FNAI mapping project report and the Guide to the Natural Communities of Florida (FNAI 2010), as well as from the knowledge and experience gained by FFS during forest inventory efforts and routine field work on LTSF.

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

A. Alluvial Forest **Description:**

Alluvial forests are hardwood forests occurring on drier soils at slight elevations within floodplains, such as on levees, ridges, and terraces. They are usually flooded for a portion of the growing season and often subject to sedimentation of alluvial materials from rivers, however, they are drier than floodplain swamps. These forests may be formed by point bar aggradation where disturbance and flood tolerant trees become established after the sediments are initially colonized by herbs.

The alluvial forest community of LTSF is highly variable depending on its landscape position and flood regime. Two subtypes can be identified as occurring on LTSF. The first type occurs along the Ochlockonee River. This subtype experiences extreme flood events and scour from the river. The canopy includes ogeechee tupelo (*Nyssa ogeche*), swamp tupelo (*Nyssa sylvatica* var. *biflora*), overcup oak (*Quercus lyrata*), pond cypress (*Taxodium ascendens*), bald cypress (*Taxodium distichum*), and silver maple (*Acer saccharinum*). Shrubs species typically include dwarf palmetto (*Sabal minor*) and hawthorn (*Crataegus* sp.). Representatives from the shrub and herbaceous layers of bottomland forest may also be present, in minimal amounts, in the river subtype. The second subtype is a drier mixed pine oak forest, but floods irregularly. This community occurs as higher bluffs immediately adjacent to the river.

The floodplain forest signature is best identified on 1999 infrared photography. This signature can then be compared to the historical photography to determine the historical extent. This community has been altered very little, thus making use of the 1999 photography feasible. The signature on the 1999 catalog is typically a blue dominated color intermixed with black and small amounts of red/pink. This community has a similar signature as upland hardwood forest on the historical photography.

Current Conditions:

The canopy and subcanopy for alluvial forests include ogeechee tupelo, swamp tupelo, overcup oak, river birch (*Betula nigra*), pond cypress, bald cypress, sweetgum (*Liquidambar styraciflua*), swamp laurel oak (*Quercus laurifolia*), water oak (*Quercus nigra*), spruce pine (*Pinus glabra*), loblolly pine (*Pinus taeda*), and silver maple. Shrub species include dwarf palmetto, titi (*Cyrilla racemiflora*), highbush sparkleberry (*Vaccinium arboreum*), highbush blueberry (*Vaccinium corymbosum*), deerberry (*Vaccinium stamineum*), swamp holly (*Ilex decidua*), American holly (*Ilex opaca*), horse sugar (*Symplocos tinctoria*), and hawthorn. The herbaceous layer includes threeawn (*Aristida* sp.), switchcane (*Arundinaria gigantea*), sedges (*Carex* spp.), slender woodoats (*Chasmanthium laxum*), and bracken fern (*Pteridium aquilinum*). Vines include crossvine (*Bignonia capreolata*) and muscadine (*Vitis rotundifolia*).

Fire Regimes:

Alluvial forests are not maintained by fire.

Management Needs:

Alluvial forest must be managed as part of the whole of a riverine system. These communities provide important wildlife habitat and contribute to the overall water quality of streams and rivers. The maintenance of natural hydrologic regimes is critical to the health of forested floodplains and to the downstream systems with which they are connected. Since these forests often immediately border the river, impacts from recreational use of the river should be minimized. Management activities for the alluvial forest will be focused on removing invasive plant species, controlling feral hog populations, and limiting ground disturbing activities.

B. Basin Swamp**Description:**

Basin swamp is a variably sized, irregularly shaped basin wetland that is vegetated with hydrophytic trees and shrubs that can withstand an extended hydroperiod. Basin swamps on LTSF form a closed to semi-closed canopy primarily dominated by pond cypress and swamp tupelo. Depending on the hydrology and fire history, shrubs may be found throughout a basin swamp or they may be concentrated around the perimeter. Typical shrubs include common buttonbush (*Cephalanthus occidentalis*), sweet pepperbush (*Clethra alnifolia*), Virginia willow (*Itea virginica*), coastal doghobble (*Leucothoe axillaris*), fetterbush (*Lyonia lucida*), wax myrtle (*Myrica cerifera*), and highbush blueberry. Herbs are typically sparse due to the closed overstory and long hydroperiod. However, herbaceous cover and species richness should be quite high where the basin swamp is adjacent to a pyrogenic community. Herbs may include sedges, spike rushes (*Eleocharis* spp.), maidencane (*Panicum hemitomon*), and bulrushes (*Scirpus* spp.). The fires from these surrounding communities help maintain an herbaceous ecotone that is often associated with many species of rare plants. Woody vines are typically infrequent to occasional.

Most basin swamps at LTSF occur on the North Ochlockonee and South Ochlockonee tracts and are embedded in upland pine and/or upland hardwood forest communities.

The basin swamp signature is best identified on 1999 infrared photography. This signature

can then be compared to the historical photography to determine the historical extent. This community has been altered very little, thus making use of the 1999 photography feasible. The signature on the 1999 aerial imagery typically looks coarse and blue with black flecks representing open water. The historical aerials are only useful to compare with the more current images, not to identify this type of habitat.

Current Conditions:

The canopy of the basin swamp community is closed and composed of younger mature trees of pond cypress, red maple (*Acer rubrum*), Carolina ash (*Fraxinus caroliniana*), sweetgum, swamp tupelo, and water oak. No true subcanopy is distinguishable within the basin swamp community of LTSF. The tall and short shrub layers for the basin swamp community include common buttonbush, coastal sweetpepperbush (*Clethra alnifolia*), Virginia willow, titi, coastal doghobble, sweetbay (*Magnolia virginiana*), fetterbush, wax myrtle, highbush blueberry, wild olive (*Osmanthus americanus*), and coastalplain willow (*Salix caroliniana*). Vines include laurel greenbrier (*Smilax laurifolia*) and muscadine and are found around the community's edge. The herbaceous layer of the basin swamp community includes broomsedge bluestem (*Andropogon virginicus*), sedges, spikerush (*Eleocharis* sp.), soft rush (*Juncus effusus* subsp. *solutus*), primrosewillow (*Ludwigia* sp.), maidencane, water spangles (*Salvinia minima*), and woolgrass (*Scirpus cyperinus*). Herbaceous species are commonly found in hummocks or around the bases of trees.

Fire Regimes:

Fire return intervals in basin swamps are highly variable. The lowest portions of basin swamps rarely, if ever, burn. Fire is more frequent in cypress dominated swamps, and may be absent or rare in hardwood swamps. Slash pine (*Pinus elliottii*), pond pine (*Pinus serotina*), and cypress can establish in these areas immediately after a fire, benefiting from ample sunlight and available bare mineral soils; they are also tolerant of moderate fires once past a certain size, thus systems dominated by these species may have been subjected to fires every 10 to 20 years.

Often there is a successional interplay between shrub bogs, baygall, and basin swamp dependent on fire patterns; shrub wetlands may, if the hydrology is wet enough, succeed into basin swamps if unburned for long periods of time.

Management Needs:

Little active management should be required for this community type. Burning adjacent fire-adapted communities and allowing fire to burn into the basin swamps is desirable. Hydrologic disturbances such as ditches, fire breaks, and roads should be minimized, if not avoided altogether in this community.

C. Baygall

Description:

Baygall is a closed canopy evergreen forested wetland often at the base of slopes or in a depression. The canopy is composed of tall, densely packed, generally straight-growing evergreen hardwoods dominated by sweetbay, swamp red bay (*Persea palustris*), and loblolly bay (*Gordonia lasianthus*). A more or less open understory of shrubs includes coastal sweet pepperbush, large gallberry (*Ilex coriacea*), Virginia willow, Florida anise (*Illicium*

floridanum), and fetterbush. Herbs are absent or few, and typically consist of ferns such as cinnamon fern (*Osmunda cinnamomea*), netted chain fern (*Woodwardia areolata*), and Virginia chain fern (*Woodwardia virginica*). Sphagnum mats are often present with sparse herbaceous groundcover.

The baygall community of LTSF can be divided into two subtypes based on landscape position. Baygall is identified as occurring in both seepage areas of ravines and in depression situations located in a flat matrix community. Both subtypes have the same species composition.

The baygall signature is best identified on 1999 infrared photography. This signature can then be compared to the historical photography to determine the historical extent. This community has been altered very little, thus making use of the 1999 photography feasible. The signature on the 1999 aerial imagery is typically deep red representing the dense evergreen canopy of this community. On the historical aerials this type of habitat appears darker than other surrounding communities and is often found immediately down slope from the sandhill/upland pine signature.

Current Conditions:

The canopy for the baygall community includes loblolly bay, sweetbay, red maple, swamp tupelo, swamp bay, slash pine, loblolly pine, and water oak. A subcanopy may or may not be present with canopy species as well as sweetgum and sourwood (*Oxydendrum arboretum*). The shrub strata for the baygall community includes Florida anise, large gallberry, Virginia willow, fetterbush, coastal sweet pepperbush, titi, wax myrtle, and highbush blueberry. The herbaceous strata for the baygall community includes switchcane, flattened pipewort (*Eriocaulon compressum*), netted chain fern, Virginia chain fern, tall yelloweyed grass (*Xyris platylepis*), and sphagnum moss (*Sphagnum* sp.). Vines are common and include muscadine and laurel greenbrier.

Fire Regimes:

Baygall burns infrequently, perhaps only a few times each century in the deepest baygalls. Although the saturated soils and humid conditions within baygalls typically inhibit fire, droughts may create conditions that allow them to burn catastrophically. These fires not only destroy the canopy, but also may ignite the deep peat layers that can smolder for weeks, or even months. The drier edges of these communities must be maintained by growing season fires that are allowed to burn into the baygall. Generally, a lack of these hot fires has contributed to the gradual expansion of the baygall community into the neighboring communities.

Management Needs:

Currently, baygalls on LTSF are more extensive than they were historically because of encroachment into what were once predominantly wet flatwoods, seepage slope, and/or depression marsh areas. Baygalls would have been found historically occurring in ravines that were isolated from fire. Baygalls would not have been found in shallow wet floodplains or depressions surrounded by a pyrogenic community. The frequency and timing of fire would not have allowed this community to persist in this landscape position.

Management activities for baygall on LTSF should focus on proper management and fire regime for the surrounding communities. Prescribed fires in adjacent communities should be allowed to burn into this community and extinguish naturally. No active management needs to occur within baygall communities of LTSF. Any hydrological disturbances, such as ditches, firebreaks, and roads, should be avoided.

D. Bottomland Forest

Description:

Bottomland forest is a relatively low-lying community found on terraces associated with large alluvial rivers and in shallow depressions. The complex topography formed by alluvial rivers creates a mixture of bottomland forest and more frequently flooded alluvial forest and floodplain swamp. Bottomland forests are rarely inundated and dry out during the early growing season. This community has a closed canopy of tall, mature, and straight trees, including sweetgum, spruce pine, loblolly pine, loblolly bay, ogeechee tupelo, swamp tupelo, southern magnolia (*Magnolia grandiflora*), sweetbay, white oak (*Quercus alba*), swamp laurel oak, water oak, swamp chestnut oak (*Quercus michauxii*), and tuliptree (*Liriodendron tulipifera*). In addition to canopy species, the subcanopy may include Florida maple (*Acer saccharum* ssp. *floridanum*), hazel alder (*Alnus serrulata*), American beech (*Fagus grandifolia*), sourwood, and Carolina laurelcherry (*Prunus caroliniana*). Shrubs are typically sparse and include dwarf palmetto, American holly, wax myrtle, sparkleberry, highbush blueberry, and southern arrowwood (*Viburnum dentatum*). Groundcover is also variable in composition and abundance, often with species overlap between herbs suited to either mesic or hydric conditions. Typical herbs include false nettle (*Boehmeria cylindrica*), witchgrasses (*Dichanthelium* spp.), slender woodoats, sedges, cinnamon fern, royal fern (*Osmunda regalis* var. *spectabilis*), panic grasses (*Panicum* spp.), Christmas fern (*Polystichum acrostichoides*), netted chain fern, and Virginia chain fern.

Bottomland forests at LTSF are often associated with small seepage streams and may contain inclusions of upland hardwood forest, floodplain swamp, basin swamp, and baygall.

On the 1953 geo-rectified photographs, bottomland forest appears as a dark, rough grained signature, virtually indistinguishable from the surrounding communities. All other surrounding communities, such as swamps, alluvial forests, and upland hardwood forests were delineated first using the 1999 infrared photography. Contour lines were used to further separate bottomland forest. Polygons were ground-truthed in the field to confirm boundaries. Bottomland forest on LTSF has been minimally altered from its historic conditions and the 1999 aerials accurately reflect what the historic conditions were.

Current Conditions:

The canopy for the bottomland hardwood forest community includes red maple, pignut hickory (*Carya glabra*), loblolly bay, sweetgum, tuliptree, southern magnolia, sweetbay, ogeechee tupelo, swamp tupelo, loblolly pine, white oak, swamp laurel oak, swamp chestnut oak, and water oak. The subcanopy layer includes Florida maple, hazel alder, beech, dahoon (*Ilex cassine*), sourwood, swamp bay (*Persea palustris*), Carolina laurelcherry, and American elm (*Ulmus americana*). The shrub layer is sparse to moderate and includes devil's walkingstick (*Aralia spinosa*), American beautyberry (*Callicarpa americana*), common buttonbush, sweet pepperbush, swamp dogwood (*Cornus foemina*), titi, large gallberry,

American holly, Virginia willow, coastal doghobble, fetterbush, wax myrtle, dwarf palmetto, horse sugar, sparkleberry, highbush blueberry, and southern arrowwood.

The herbaceous layer is dominated by slender woodoats. Other herbaceous associates include jack-in-the-pulpit (*Arisaema triphyllum*), switchcane, false nettle, sedges, slender witchgrasses, fireweed (*Erechtites hieraciifolius*), rushes (*Juncus* spp.), partridgeberry (*Mitchella repens*), cinnamon fern, royal fern, panic grasses, Christmas fern, bracken fern, millet beaksedge (*Rhynchospora miliacea*), wild petunia (*Ruellia* sp.), coastal rosegiant (*Sabatia calycina*), lizard's tail (*Saururus cernuus*), maiden fern (*Thelypteris* sp.), violet (*Viola* sp.), netted chain fern, and Virginia chain fern.

Vines are diverse and include peppervine (*Ampelopsis arborea*), rattan vine (*Berchemia scandens*), crossvine, trumpet creeper (*Campsis radicans*), climbing hydrangea (*Decumaria barbara*), yellow jessamine (*Gelsemium sempervirens*), Virginia creeper (*Parthenocissus quinquefolia*), earleaf greenbrier (*Smilax auriculata*), saw greenbrier (*Smilax bona-nox*), cat greenbrier (*Smilax glauca*), laurel greenbrier, sarsaparilla vine (*Smilax pumila*), eastern poison ivy (*Toxicodendron radicans*), summer grape (*Vitis aestivalis*), and muscadine.

Fire Regimes:

The dense canopy of bottomland forests maintains relatively high humidity levels; thus fires are rare, occurring only during times of extreme drought. This community should be considered as a natural fire break that may experience limited burning at its margins.

Management Needs:

Management activities should focus on maintaining natural hydrologic patterns and allowing prescribed fires from adjacent communities to extinguish themselves at the edges of the community. This will create a variable and desirable ecotone that is not clearly defined.

E. Depression Marsh

Description:

Depression marshes are isolated, non-forested wetland basins that are embedded in a pyrogenic matrix community such as pine flatwoods or sandhill. These marshes typically have concentric zones of vegetation related to the length of hydroperiod and depth of flooding. Depression marshes are distinguished from basin marshes principally by their landscape position which subjects them to more frequent fires.

Depression marshes at LTSF may include a canopy of red maple, swamp tupelo, loblolly pine, or sweetbay. Herbaceous cover may be sparse to moderate and includes Carolina redroot (*Lachnanthes caroliana*), broomsedge bluestem, maidencane, spike rushes, hairy smartweed (*Polygonum hirsutum*), Virginia chain fern, rushes, and sedges. Open water may make up a large part of this community due to the depth of water.

Depression marshes occur throughout LTSF in association with sandhill, upland pine, mesic flatwoods, or wet flatwoods. Many small depressions can be found throughout the forest, but fall below the minimum mapping unit of this project. Historic acreage of this community would have been higher than what is reported here.

The depression marsh signature on the historic imagery varies from being black, which indicates open water, to a very light gray with a smooth look indicative of an herbaceous dominated situation. A medium gray and grainy/rough texture is typical of a depression that contains shrubs and/or trees. Often depression marshes were identified on the 1999 infrared aerials where they appear as a blue or black signature surrounded by a red/pink matrix of mesic flatwoods, sandhill, or upland pine.

Current Conditions:

Many depression marshes of LTSF are commonly quite deep and lack the subtle gradient from edge to center that is typically associated with this community. This type of situation is commonly found in areas where upland pine forest or mesic flatwoods is the surrounding community. The abrupt drop to deeper water prevents a dominant herbaceous layer from forming. More classical, shallow and historically herbaceous species dominated examples of this community can be found within the sandhill matrix adjacent to SR 20. Depression marshes at LTSF suffer from lack of fire or from fire ineffectively controlling woody components of the community.

Depression marshes are typically surrounded by young trees including red maple, swamp tupelo, loblolly pine, and sweetbay. These tree species can also be found as invaders throughout the entire community in some cases. Shrub cover dominates this community and includes buttonbush, coastalplain willow, saw palmetto (*Serenoa repens*), titi, coastal sweet pepperbush, fetterbush, peelbark St. John's wort (*Hypericum fasciculatum*), fourpetal St. John's wort (*Hypericum tetrapetalum*), myrtle dahoon (*Ilex cassine* var. *myrtifolia*), and elderberry (*Sambucus canadensis*). Herbaceous cover is typically low due to water depth and fire suppression. The herbaceous species observed include Carolina redroot, broomsedge bluestem, primrosewillow, maidencane, spikerush, hairy smartweed, sphagnum moss, Virginia chain fern, rushes, and sedges.

Historical photography was helpful in determining several depression marshes that have been invaded by hardwoods and mapped as successional hydric shrubland/forests currently. Most small depressional wetlands that are located within a pyrogenic community can be assumed to have been depression marshes historically, despite the sometimes shrubby signatures in the historic photography. The extent of historic herbaceous cover in this community is not known.

Fire Regimes:

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

Management Needs:

Management activities should focus on allowing prescribed fires from surrounding uplands to burn through the depression marsh community. When feasible, fire should be prescribed in the surrounding community at a time when water in the marshes is low or absent (April-June).

Marshes with substantial shrub cover (either within the marsh or on the surrounding edges) should be burned on a shorter return interval than herbaceous subtypes, in order to allow conversion to an herb dominated situation.

F. Floodplain Swamp

Description:

Floodplain swamp is a closed-canopy forest of hydrophytic trees occurring on frequently or permanently flooded hydric soils adjacent to stream and river channels and in depressions and oxbows within floodplains.

Floodplain swamps on LTSF have a closed canopy dominated by pond cypress with occasional red maple, Carolina ash, sweetbay, ogeechee tupelo, swamp tupelo, and bald cypress. Shrubs may be present, including hazel alder, common buttonbush, fetterbush, wax myrtle, swamp azalea (*Rhododendron viscosum*), elderberry (*Sambucus nigra* subsp. *canadensis*), highbush blueberry, and southern arrowwood. A groundcover of flood tolerant ferns and herbs may be present, including sensitive fern (*Onoclea sensibilis*), goldenclub (*Orontium aquaticum*), royal fern, sedges, slender woodoats, cinnamon fern, maidencane, dotted smartweed (*Polygonum punctatum*), lizard's tail, and netted chain fern. Floodplain swamp occurs on LTSF along Lake Talquin, the Ochlockonee River, the Little River, and other small tributaries of Lake Talquin.

The floodplain swamp signature is best identified on 1999 infrared photography. This signature can then be compared to the historical photography to determine historical extent. This community has been logged very little, thus making use of the 1999 photography acceptable. The signature on the 1999 images is typically a gray/blue dominated color intermixed with white. This community is very dynamic and continues to mature since the original damming of Lake Talquin.

Current Conditions:

Many of the floodplain swamps on LTSF have included floodplain marshes. These marshes lack a canopy and are dominated by herbaceous and shrub vegetation. This community is currently in maintenance condition, with the exception of scattered invasive species occurring along its margins.

The canopy layer of the floodplain swamp community includes red maple, Carolina ash, sweetgum, ogeechee tupelo, swamp tupelo, sweetbay, swamp bay, loblolly pine, water oak, pond cypress, and bald cypress. In addition to canopy species, the subcanopy includes river birch, sweetgum, and swamp laurel oak. The shrub layer includes hazel alder, common buttonbush, titi, roundpod St. John's wort (*Hypericum cistifolium*), Virginia willow, fetterbush, wax myrtle, swamp azalea, elderberry, horse sugar, highbush blueberry, and southern arrowwood.

The herbaceous layer includes false nettle, manyflower marshpennywort (*Hydrocotyle umbellata*), duckweed (*Lemna* sp.), royal fern, sensitive fern, goldenclub, false hop sedge (*Carex lupuliformis*), owlfruit sedge (*Carex stipata*), slender woodoats, cinnamon fern, maidencane, dotted smartweed, water spangles, narrowfruit horned beaksedge (*Rhynchospora inundata*), lizard's tail, sphagnum moss, Virginia marsh St. John's wort (*Triadenum*

virginicum), broadleaf cattail (*Typha latifolia*), and netted chain fern. Vines include crossvine, peppervine, trumpet creeper, eastern poison ivy, and laurel greenbrier.

Invasive wild taro (*Colocasia esculenta*) was occasionally observed in floodplain swamps, usually in transitional areas between swamp and open water.

Fire Regimes:

Floodplain swamp is not a fire adapted community and rarely burns because of flooding and/or saturated soils.

Management Needs:

Management activities for floodplain swamp on LTSF should focus on maintaining natural hydroperiods and the control of invasive exotic species.

G. Mesic Flatwoods

Description:

Mesic flatwoods are forests of southern pine species, including longleaf pine (*Pinus palustris*) and slash pine (*Pinus elliottii*). There is little or no subcanopy and very few tall shrubs, but a dense groundcover of herbs and short shrubs is typically present. Mesic flatwoods occur on flat to gently sloping topography and often form a mosaic intermixed with wet flatwoods and upland pine. The short shrub layer is maintained with fire and typically dominated by saw palmetto. The moderate shrub layer combined with an open canopy allows ample light for herbaceous species, especially wiregrass (*Aristida stricta*).

Mesic flatwoods of LTSF are found scattered throughout the forest. This community is usually found in a broad seepage situation. It occurs on low gradient slopes where the relief and under-lying soils create conditions where subsurface water is more readily available. The relief is often extremely gradual where deep ravines and seepage streams have not formed. Mesic flatwoods are found in association with wet flatwoods in lower, poorly drained areas and upland pine in higher, well drained locations. Most of the larger stands of mesic flatwoods occur north of Lake Talquin on the Joe Budd Tract with lesser amounts on the Midway, Highway 20, and Lines Tract among others. The signature of mesic flatwoods appears as light gray (relative to surrounding hardwood and wetland communities) with a smooth texture intermixed with scattered darker textures representing trees and/or shrub inclusions. The signature generally does not contain any white color. This character can generally be used to separate mesic flatwoods from surrounding upland pine and sandhill.

Current Conditions:

Currently, mesic flatwoods at Lake Talquin are in variable condition ranging from good to fair condition. Several historic mesic flatwoods at LTSF have been planted with slash pine and managed as pine plantations with varying degrees of disturbance from site preparation (bedding, herbicides, etc.); these are mapped as pine plantations. Stands that have received some thinning and fire, but that remain highly disturbed, are classified as “restoration mesic flatwoods” in the current map to indicate that management is moving the community towards a more natural structure.

The mesic flatwoods canopy includes slash pine, longleaf pine, loblolly pine, sweetgum, swamp laurel oak, water oak, and live oak (*Quercus virginiana*). No true subcanopy was identified for this community. The shrub layer is characterized by saw palmetto but also includes slimleaf pawpaw (*Asimina angustifolia*), coastal sweet pepperbush, titi, common persimmon (*Diospyros virginiana*), dwarf huckleberry (*Gaylussacia dumosa*), St. Andrew's cross (*Hypericum hypericoides*), fourpetal St. John's wort, large gallberry, gallberry (*Ilex glabra*), coastalplain staggerbush (*Lyonia fruticosa*), wax myrtle, bluejack oak (*Quercus incana*), swamp azalea, mountain azalea (*Rhododendron canescens*), swamp bay, winged sumac (*Rhus copallinum*), sparkleberry, highbush blueberry, shiny blueberry (*Vaccinium myrsinites*), and deerberry. Vines layer observed in the mesic flatwoods community included yellow jessamine, earleaf greenbrier, saw greenbrier, muscadine, and eastern poison ivy. The herbaceous layer is comprised of broomsedge bluestem, wiregrass, witchgrass (*Dichanthelium* sp.), whitehead bogbutton (*Lachnocaulon anceps*), pinkscale gayfeather (*Liatris elegans*), partridgeberry, orange milkwort (*Polygala lutea*), bracken fern, savannah meadowbeauty (*Rhexia alifanus*), fascicled beaksedge (*Rhynchospora fascicularis*), and Virginia chain fern.

Fire Regimes:

Mesic flatwoods require repeated applications of prescribed fires on a two to four-year cycle.

Management Needs:

A prescribed fire return interval of every two to four years is recommended. It may be necessary to apply fire more frequently in flatwoods where fuel levels are high due to a history of fire exclusion. Thinning of pine plantations as needed, and mid-rotation mechanical or chemical treatments may be applied. Offsite tree species may be removed, and the site reforested with appropriate species.

H. Sandhill**Description:**

Sandhills occur on crests and slopes of rolling hills and ridges with steep or gentle topography. Soils are deep, marine-deposited, often yellowish sands that are well-drained and relatively infertile. Sandhill is important for aquifer recharge because the porous sands allow water to percolate rapidly with little runoff and minimal evaporation. The deep, sandy soils and a lack of near surface hardpan or water table contribute to a xeric environment.

Sandhills are relatively open forests consisting of longleaf pine trees, typically with a sparse subcanopy of turkey oak (*Quercus laevis*), bluejack oak and / or sand post oak (*Quercus margaretta*). The shrub layer has a variable aspect with the overall shrub cover below 50% cover with a moderate percentage of bare sand. The herbaceous layer should be highly diverse and dominated by wiregrass. This is the key component to the community. Dominant grasses, in addition to wiregrass, include other threeawns (*Aristida* spp.), pineywoods dropseed (*Sporobolus junceus*), lopsided indiagrass (*Sorghastrum secundum*), several species of bluestems (*Andropogon* spp.), and little bluestem (*Schizachyrium scoparium*).

On LTSF, sandhill occurs in association with upland pine and upland hardwood forest occurring on the highest land within the dissected landscape of uplands and lowlands

containing upland hardwood forest and bottomland forest. The largest expanses of sandhill are along the southern boundary of the Highway 20 and Fort Braden Tracts.

The sandhill signature appears as a smooth 50/50 white and light gray matrix in which scattered trees show up as dark grey flecks. The sandhill signature on the historic photography can also appear solid white due to clearing. Sandhill doesn't differ from the upland pine signatures in the historical photographs. Field ground-truthing is necessary in order to tease these two communities apart.

Current Conditions:

Stands mapped as current sandhill either appear to be natural stands or have been significantly thinned, retain a mostly natural understory composition, and are managed with frequent prescribed fire. These are in fair to good condition and on track to meeting desired future conditions. Within this community, an open, uneven aged longleaf pine canopy is present, with a subcanopy of scattered turkey oak. The understory is a diverse mixture of shrubs and herbs, and wiregrass is present. Areas of good quality, frequently burned sandhill occur scattered across the larger tracts on the property.

Other areas of sandhill in LTSF were either planted as pine plantation, have recently been clearcut or thinned, or are invaded by hardwoods or sand pine due to past fire exclusion. Historic sandhill currently under silvicultural activities are typically planted in a dense canopy of slash pine with a depauperate understory caused by the dense canopy and are mapped as pine plantation. Stands that have received some thinning and fire, but that remain highly disturbed, are mapped as "restoration" sandhills to indicate that management is moving the community towards a more natural structure.

Sandhill on LTSF is often found intermixed with upland pine and the separation of these two communities was often based on the presence of turkey oak in the sandhill community. The open canopy includes slash pine, longleaf pine, loblolly pine, sand pine (*Pinus clausa*), swamp laurel oak, water oak, post oak (*Quercus stellata*), Sand post oak (*Quercus margerette*), butterfly milkweed (*Asclepias tuberosa*), redring milkweed (*Asclepias variegata*) and live oak. The subcanopy includes turkey oak, southern red oak (*Quercus falcata*), sand live oak (*Quercus geminata*), and immature members of the canopy. The shrub layer for the sandhill community includes slimleaf pawpaw, American beautyberry, chinquapin (*Castanea pumila*), flowering dogwood (*Cornus florida*), common persimmon, wax myrtle, pricklypear (*Opuntia humifusa*), wild olive, red bay (*Persea borbonia*), St. Andrew's cross, gallberry, gopher apple (*Licania michauxii*), bluejack oak, dwarf live oak (*Quercus minima*), winged sumac, saw palmetto, sparkleberry, highbush blueberry, shiny blueberry, and deerberry. Herbs are diverse and variable depending on fire history. They consist of broomsedge bluestem, wiregrass, coastalplain balm (*Dicerandra linearifolia*), witchgrass, dogfennel (*Eupatorium capillifolium*), yankeeweed (*Eupatorium compositifolium*), Carolina frostweed (*Helianthemum carolinianum*), false foxglove (*Agalinis* sp.), clasping milkweed (*Asclepias amplexicaulis*), pinewoods milkweed (*Asclepias humistrata*), Florida greeneyes (*Berlandiera subacaulis*), vanillaleaf (*Carphephorus odoratissimus*), tread softly (*Cnidioscolus stimulosus*), rabbitbells (*Crotalaria rotundifolia*), tall elephantsfoot (*Elephantopus elatus*), lovegrass (*Eragrostis* sp.), dogtongue wild buckwheat (*Eriogonum tomentosum*), lateflowering thoroughwort (*Eupatorium serotinum*), dwarf dandelion (*Krigia* sp.), pinkscale gayfeather,

piedmont gayfeather (*Liatris secunda*), lady lupine (*Lupinus villosus*), narrowleaf silkgrass (*Pityopsis graminifolia*), bracken fern, royal snoutbean (*Rhynchosia cytisoides*), sand blackberry (*Rubus cuneifolius*), southern dewberry (*Rubus trivialis*), nutrush (*Scleria* sp.), goldenrod (*Solidago* sp.), lopsided indiagrass, and forked bluecurls (*Trichostema dichotomum*). Vines include yellow jessamine, earleaf greenbrier, and muscadine. The main weedy species observed are broomsedges (*Andropogon* spp.), dogfennels (*Eupatorium* spp.), and blackberries (*Rubus* spp.).

Fire Regimes:

Sandhill requires frequent fires to maintain its natural structure and desired species composition, reduce hardwood competition, and perpetuate pines and grasses. Fire should be applied to this community every one to three years. Variability in the season, frequency, and intensity of fire is important for preserving species diversity, since different species in the community flourish under different fire regimes.

Management Needs:

Thinning of pine plantations as needed, and mid-rotation mechanical or chemical treatments may be applied. Offsite tree species may be removed, and the site reforested with appropriate species. Groundcover restoration projects should focus on practices that will increase wiregrass abundance. Seasonally appropriate prescribed burns at a one to three-year interval will be the most effective at accomplishing this and decreasing weedy species such as laurel oak (*Quercus hemisphaerica*). In areas with high densities of laurel oak, evaluate the merchantability for a timber sale, followed by a herbicide treatment to control resprouting oak. FFS may consider seeding or transplanting of wiregrass to facilitate burns through these areas if feasible.

I. Shrub Bog

Description:

Shrub bogs are dense stands of broadleaved evergreen shrubs, vines, and short trees, one to five meters tall depending on time since fire, with or without an overstory of scattered pine or bay trees, growing in mucky soil where water is usually less than a foot deep. Characteristic shrubs include titi, black titi (*Cliftonia monophylla*), fetterbush, large gallberry, gallberry (*I. glabra*), wax myrtle, and sweet pepperbush, often laced together with laurel greenbrier. Taller pines, either pond, slash, or loblolly, may be present and in some cases of long unburned stands, form dense clumps. Other occasional trees that may extend above the shrub layer are loblolly bay, sweetbay, swamp bay, pond cypress, and stunted red maple. Herbs are sparse and patchy, confined to sunny openings, and often include tenangle pipewort (*Eriocaulon decangulare*), and Virginia chain fern. Soils of shrub bogs frequently have an organic muck layer of varying depth at the surface underlain by sand or loamy sands. Sphagnum moss (*Sphagnum* spp.) is common on the ground surface.

Shrub bog was found only on the Searcy Tract. Basin wetlands with a smooth grey signature were assumed to be historic shrub bogs. Some are rounded to irregularly shaped communities while others are linear features along narrow drainages.

Current Conditions:

The shrub bogs at LTSF have a canopy of slash pine and sweetbay with a dense shrub layer dominated by black titi and titi. No herbs were observed. The State-threatened fevertree (*Pinckneya bracteata*) was observed growing on the edge of a linear shrub bog on the Searcy Tract.

Fire Regimes:

Fires starting in the surrounding pinelands burn to the edges of shrub bogs, but burn through them only during drought periods, probably on the order of every 10 to 20 years. The shrubs and bay trees respond to fire by re-sprouting, either from root crowns or rhizomes. During droughts the peat may become dry enough to burn completely.

Management Needs:

Management should focus on hydrology restoration. If possible, fires should be allowed to burn into shrub bog edges to limit titi encroachment into surrounding communities.

J. Swamp Lake**Description:**

Swamp lakes are generally characterized as shallow open water zones, with or without floating and submerged aquatic plants, that are surrounded by swamp. They are generally permanent water bodies, although water levels often fluctuate substantially, and they may become completely dry during extreme droughts. They are typically lentic water bodies occurring in confined basins or depressions. However, during floods or following heavy rains, they may exhibit decidedly lotic characteristics, flowing with the flood water or overflowing their banks into lower topographic areas. Some may even exhibit a slow perennial sheet flow, but water movement is generally so slow that lentic conditions prevail. Shrubs are occasional in the fringe of this community. Herbaceous components should be aquatic bed plants with minimal emergent species found around the littoral zone of the community. The swamp lake of LTSF currently meets the desired future condition for this community.

This community appears black on the 1999 infrared photography. The historical aerials were used to confirm the extents of this community.

Current Conditions:

The single swamp lake community located in the North Ochlocknee tract has a pond cypress dominated basin swamp edge with scattered shrubs including common buttonbush, titi, and coastalplain willow.

Fire Regimes:

Fire is not required to maintain this community.

Management Needs:

Management of the swamp community consists of monitoring for presence of aquatic invasive species at regular intervals. Invasive species should be treated immediately before they're allowed to reach unmanageable levels. Currently, no invasive species were identified within the single swamp lake of LTSF.

The surrounding communities should be taken into consideration when evaluating effects on this community. Management should focus on restricting hydrological manipulations and avoiding land clearing within the surrounding swamp.

K. Upland Hardwood Forest

Description:

Upland hardwood forest is a well-developed, closed-canopy forest dominated by deciduous hardwood trees on mesic soils in areas sheltered from fire. It typically has a diverse assemblage of deciduous and evergreen tree species in the canopy and midstory, shade-tolerant shrubs, and a sparse groundcover. 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.

Characteristic canopy trees include southern magnolia, American beech, white oak, and spruce pine, pignut hickory, sweetgum, Florida maple, live oak, laurel oak (*Quercus hemisphaerica*), swamp chestnut oak, southern hackberry (*Celtis occidentalis*), white ash (*Fraxinus americana*), and loblolly pine. The midstory layer is composed of younger canopy species as well as small trees, and tall shrubs, such as American holly, American hornbeam (*Carpinus caroliniana*), devil's walkingstick, eastern hophornbeam (*Ostrya virginiana*), flowering dogwood, eastern redbud (*Cercis canadensis*), horse sugar, silverbells (*Halesia* spp.), black cherry (*Prunus serotina*), and basswood (*Tilia americana*). The groundcover is composed of shade-tolerant herbs, graminoids, and vines, such as partridgeberry, Virginia creeper, violets (*Viola* spp.), sedges, sarsaparilla vine, ebony spleenwort (*Asplenium platyneuron*), woodsgrass (*Oplismenus hirtellus*), and longleaf woodoats (*Chasmanthium laxum* var. *sessiliflorum*). Spring ephemerals such as trilliums (*Trillium* spp.) can be found in the groundcover.

Ecotones between upland hardwood forest and the neighboring upland pine in some cases develop a somewhat intermediate community: upland mixed woodland. This community type is often difficult to distinguish from the surrounding upland hardwood forest and is included more often than delineated in the map. The upland hardwood forest can be identified on the historical photography by first delineating the surrounding bottomland forests and adjacent uplands. The signature for this community appears as a coarse textured light gray, dark gray, and black composite that is much darker than surrounding sandhill and upland pine. The 1999 infrared photography was used to separate this from floodplain swamp and bottomland forest.

Current Conditions:

The upland hardwood forest at LTSF is generally in maintenance condition and is relatively similar in extent compared to the historic serials. Canopy species are often very diverse, with no one species dominant and include mostly deciduous hardwoods such as white oak, American beech, swamp chestnut oak, red maple, silver maple, pignut hickory, Florida maple,

sweetgum, hophornbeam, southern magnolia, spruce pine, tuliptree, longleaf pine, loblolly pine, black cherry, swamp laurel oak, water oak, Shumard's oak (*Quercus shumardii*), sweetbay, and slash pine. The subcanopy includes young individuals of the canopy layer plus other smaller trees such as flowering dogwood, American hornbeam, American holly, Florida anisetree (*Illicium floridanum*), sourwood, swamp bay, and basswood. The shrub layer includes needle palm (*Rhapidophyllum hystrix*), river birch, American beautyberry, red buckeye (*Aesculus pavia*), eastern redbud, coastal sweetpepperbush, American witchhazel (*Hamamelis virginiana*), oakleaf hydrangea (*Hydrangea quercifolia*), large gallberry, coastal doghobble, wax myrtle, Virginia willow, wild olive, mountain azalea, dwarf palmetto, black willow (*Salix nigra*), elderberry, saw palmetto, common sweetleaf (*Symplocos tinctoria*), sparkleberry, highbush blueberry, deerberry, common pawpaw (*Asimina triloba*), and St. Andrew's cross. The vine components for this community included rattan vine, crossvine, muscadine, bristly greenbrier (*Smilax tamnoides*), eastern poison ivy, sarsaparilla vine, yellow jessamine, trumpet honeysuckle (*Lonicera sempervirens*), milkvine (*Matelea* sp.), and Virginia creeper. Epiphytes observed in the upland hardwood forest community included greenfly orchid (*Epidendrum conopseum*) and resurrection fern (*Pleopeltis polypodioides*). The herbaceous layer includes switchcane, trillium (*Trillium underwoodii*), rain lily (*Zephyranthes atamasco*), Christmas fern, broomsedge bluestem, slender woodoats, witchgrass, partridgeberry, netted chain fern, ebony spleenwort, greater bladder sedge (*Carex intumescens*), woodsgrass, cinnamon fern, blackseed needlegrass (*Piptochaetium avenaceum*), early blue violet (*Viola palmata*), primroseleaf violet (*Viola primulifolia*), and Virginia chain fern.

The invasive Japanese honeysuckle (*Lonicera japonica*) was also documented in the upland hardwood community typically where the community meets the floodplain forest. This community also harbors a high number of rare plants including Flyr's nemesis (*Brickellia cordifolia*), Carolina allspice (*Calycanthus floridus*), wild ginger (*Hexastylis arifolia*), pyramid magnolia (*Magnolia pyramidata*), silky camellia (*Stewartia malacodendron*), and Florida bellwort (*Uvularia floridana*).

Fire Regimes:

Upland hardwood forest is not a fire-adapted natural community. However, low intensity, naturally occurring fires that creep into the edges from surrounding pyrogenic upland communities (e.g., upland pine, sandhill) appears to be a natural part of the forest dynamics of upland hardwood forest. These fires rarely burn completely through the understory, and even less frequently lead to devastating crown fires.

Management Needs:

This community requires little active management. Monitoring and control of exotic plants will be the primary management requirement. Efforts need to be made to allow upland hardwood forests to act as natural fire breaks in place of plowed fire breaks.

L. Upland Mixed Woodland

Description:

Upland mixed woodland has an open to partially closed hardwood canopy composed primarily of southern red oak and mockernut hickory (*Carya alba*) and intermixed with shortleaf and/or longleaf pines. This community has a dense ground layer of short shrubs and

herbs. Unlike upland pine and sandhill, wiregrass is typically lacking in upland mixed woodland. Soils in this community are generally richer and contain more clay than the sandy soils found across most of Florida. This community transitions to bottomland forest, upland hardwood forest, sandhill, and upland pine.

Primary species in the canopy layer include southern red oak, longleaf pine, mockernut hickory, sand post oak, shortleaf pine (*Pinus echinata*), loblolly pine, and post oak. Within the subcanopy are mockernut hickory, flowering dogwood, longleaf pine, black cherry, southern red oak, swamp laurel oak, sand post oak, post oak, live oak, and fringe tree (*Chionanthus virginicus*). Many of the same species occur as shrubs, including American beautyberry, littlehip hawthorn (*Crataegus spathulata*), common persimmon, wax myrtle, winged sumac, sassafras (*Sassafras albidum*), sparkleberry, and Elliott's blueberry (*Vaccinium elliotii*). The diverse herb layer includes Elliott's bluestem (*Andropogon gyrans*), splitbeard bluestem (*Andropogon ternarius*), broomsedge bluestem, chalky bluestem (*Andropogon virginicus* var. *glaucus*), tread softly, oblongleaf twinflower (*Dyschoriste oblongifolia*), dogtongue wild buckwheat, sensitive briar (*Mimosa quadrivalvis*), narrowleaf silkgrass, bracken fern, sweet goldenrod (*Solidago odora*), lopsided indiagrass, squarehead (*Tetragonotheca helianthoides*), and some wiregrass (*Aristida stricta* var. *beyrichiana*).

At LTSF, upland mixed woodland typically occurs on the upper slopes of ravines, between a pyrogenic upland community and the richer upland hardwood forest found further down slope.

Upland mixed woodland appears lighter than upland hardwood forests on the historical imagery, but not consistently enough to accurately delineate it across the forest. This community type was often adjacent to upland pine or upland hardwood forest because of the difficulty in delineating it based on aerial signatures. Several ground-truthed points were collected and included in the NC Point shapefile.

Current Conditions:

Typical canopy species for upland mixed woodland include southern red oak, slash pine, loblolly pine, laurel oak, swamp laurel oak, and live oak. The subcanopy includes young individuals of the canopy species and flowering dogwood, American holly, sweetgum, southern magnolia, loblolly pine, white oak, sand post oak, blackjack oak (*Quercus marilandica*), swamp chestnut oak, water oak, and sassafras. Shrubs include American beautyberry, flowering dogwood, common persimmon, gallberry, sweetgum, southern magnolia, southern crabapple (*Malus angustifolia*), Carolina laurelcherry, blackjack oak, swamp chestnut oak, water oak, horse sugar, and sparkleberry. Herbs are variable and include bluestem (*Andropogon* sp.), witchgrass, lovegrass, panic grass (*Panicum* sp.), sugarcane plumegrass (*Saccharum giganteum*), and goldenrod. Vines are a diverse and common component of the ground layer. Vine species include yellow jessamine, partridgeberry, Virginia creeper, earleaf greenbrier, cat greenbrier, eastern poison ivy, and muscadine.

Fire Regimes:

Historic fire regimes for upland mixed woodland are difficult to determine. Most research indicates that this community should burn less frequently than upland pine and sandhill communities, perhaps only every 10 years, but management of this habitat at Tall Timbers

Research Station and Apalachee Wildlife Management Area indicate that upland mixed woodland can be burned every 2 years and maintain a co-dominant hardwood canopy.

Management Needs:

Allow prescribed fires to burn into upland mixed woodland from adjacent uplands. Monitoring and control of invasive plants are an important management requirement. Restoration projects should focus on growing season and winter burns to try to create a mosaic of open and forested areas and to open up the understory. During restoration, more frequent fires may be necessary to remove weedy oaks and vines, and to prevent their establishment in recent clearcuts. Where fire-sensitive hardwoods, such as laurel oak, sweetgum, and water oak, have invaded upland mixed woodland in the absence of fire and grown to (fire-proof) tree size, mechanical removal of these invading species may be necessary to open up the canopy and allow light to reach the ground layer. Planted pine stands should be further thinned to encourage desirable hardwoods and a more herbaceous groundcover. However, maintaining a pine canopy will help to provide fuel for prescribed burns and preserve the necessary structure of this community. Planting of longleaf pines may be needed to re-establish this species.

M. Upland Pine

Description:

Upland pine is a woodland of southern pines with a sparse to moderate shrub layer and a dense, species-rich groundcover of grasses and herbs, occurring on gently rolling terrain. The canopy is dominated by a mixed age class of longleaf pine. There is an intermittent subcanopy layer of smaller pines, and hardwoods including southern red oak, blackjack oak, flowering dogwood, post oak, sassafras, laurel oak, common persimmon, sand post oak, mockernut hickory, and blackgum (*Nyssa sylvatica*). Though typically present as low shrubs and occasional midstory trees, these species can form a dense midstory (subcanopy and tall shrubs layers) in areas that have experienced a lack of fire for many years. Shrub cover can vary from sparse to dense, and includes low-growing species such as dwarf huckleberry, running oak (*Quercus elliotii*), gallberry, and Darrow's blueberry (*Vaccinium darrowii*). Herbaceous cover varies, from sparse to abundant, dependent upon the density and shading effects of the shrubs. Wiregrass is often dominant, but a high diversity of grasses and forbs may be present. Woody vines such as greenbrier (*Smilax* spp.) and summer grape are occasionally present.

Upland pine is a dominant upland community type at LTSF, occurring on most tracts. The upland pine signature on historic photographs often appears white due to clearing. In areas where this community wasn't cleared, the signature appears as a smooth 50/50 white and light gray matrix with scattered trees showing up as dark grey flecks. Sandhill has a very similar signature. Field ground-truthing is necessary in order to tease these two communities apart.

Current Conditions:

All of the former upland pine on the LTSF has been extensively altered from its original condition. A long history of agriculture and silvicultural practices have disturbed the soil and removed many of the native plant species. Some of the native vegetation has returned, but the community no longer comprises the diverse plant assemblage one would expect. Fire suppression has also led to the fragmentation of upland pine, as well as succession of these pine forests to successional hardwood forests. Upland pine on LTSF is often found intermixed

with sandhill and the separation of these two communities is often arbitrarily based on the absence of turkey oak in the upland pine community. Silver plumegrass (*Saccharum alopecuroides*) was found to be a strong indicator of upland pine since it is not found in the sandhill community. Some historic upland pine at LTSF has been planted with slash pine or loblolly pine and managed as pine plantation with varying degrees of disturbance from site preparation (bedding, herbicides, etc.). Dense, unthinned planted pine stands on historic upland pine areas are mapped as pine plantations. Stands that have received some thinning and fire, but that remain highly disturbed, are classified as “restoration upland pine” in the current map to indicate that management is moving the community towards a more natural structure.

Two forms of upland pine on LTSF were identified during this project. The classic example of this community is found covering the entire Rocky Comfort Tract. This area contains a thin layer (8-12 inches) of loamy sand covering dense clay-based subsoils. This soil allows typical hardwood species to remain present where one would not expect to find them in a sandhill situation. Common persimmon and hickories (*Carya* sp.) constitute the majority of the shrub/subcanopy component. The second variation occurs on sand-based soils that have a slight loam element to them. These areas do not support turkey oaks, but can support herbaceous species typically associated with sandhills predominantly forked bluecurls, Florida greeneyes, pinkscale gayfeather, and coastalplain balm. This subtype of upland pine may be better labeled as a low-grade sandhill community. This variant’s signature is identical to the sandhill signature of the historical photography and was often cleared in the 1930s and 1940s. Both forms of this community are generally dominated by shrub cover.

Currently the canopy in upland pine at LTSF is dominated by slash pine, longleaf pine, loblolly pine, pignut hickory, southern red oak, swamp laurel oak, water oak, and live oak. The subcanopy includes flowering dogwood, sweetgum, and younger species of the canopy layer. Shrub species include slimleaf pawpaw, American beautyberry, common persimmon, gopher apple, wax myrtle, turkey oak, winged sumac, sassafras, sparkleberry, shiny blueberry, and deerberry. Vines include yellow jessamine, Virginia creeper, earleaf greenbrier, eastern poison ivy, and muscadine. The herb layer includes silver plumegrass, false foxglove (*Agalinis fasciculata*), broomsedge bluestem, wiregrass, pinewoods milkweed (*Asclepias humistrata*), tread softly, coastalplain balm, witchgrass, dogfennel, yankeeweed, narrowleaf silkgrass, bracken fern, whip nutrush (*Scleria triglomerata*), and queensdelight (*Stillingia sylvatica*).

Fire Regimes:

Upland pine depends on frequent, low-intensity fires to maintain a diverse herbaceous layer. Upland pine should burn on a one to three-year prescribed fire interval.

Management Needs:

Prescribed fire should be applied at a one to three-year interval. Since upland pine of LTSF contains little or no remaining wiregrass, reintroduction of this species (seeding or plugging) may be needed.

Extensive efforts towards restoring groundcover can be observed in both the North and South Ochlockonee Tracts, among others. The restoration process is well on its way in these areas and appears to be heading in a positive direction.

N. Wet Flatwoods

Description:

Wet flatwoods are flat, poorly drained woodlands of scattered, well-spaced pine trees with a diverse understory of hydrophytic herbs and shrubs. On LTSF, wet flatwoods communities occur in lower areas within a larger mesic flatwoods matrix and along the upper reaches of drains leading into the upland hardwood and bottomland forests. Wet flatwoods are characterized by a dense groundcover of wiregrass and a wide variety of other herbaceous species. Shrub cover is minimal, low and controlled by prescribed burns. Longleaf pine, pond pine, and slash pine, constitute the mixed-age canopy. The subcanopy is minimal with the only scattered young pine individuals being promoted to the canopy. Vines are found infrequently and are trailing due to frequent ground fires. The groundcover receives ample amounts of light through the open canopy and sparse shrub cover, allowing for many rare plants to prosper. Shrubby wet flatwoods may have a more continuous cover of hydrophytic shrubs and may be very similar to shrub bogs. However, the slightly drier conditions and more frequent fire regime should limit the height of these shrubs.

The signature of wet flatwoods appears as light gray (relative to surrounding hardwood and wetland communities) with a smooth texture intermixed with darker texture representing trees and/or large shrub inclusions. The signature does not contain any white, generally distinguishing it from surrounding upland pine, sandhill, or dry runner oak mesic flatwoods. This community typically appears slightly darker than mesic flatwoods when found side by side. However, field ground-truthing is necessary in order to accurately separate these two communities because signatures often vary across the landscape. Wet flatwoods are likely underrepresented in the historic acreage due to them being included in the adjacent mesic flatwoods stands because these two classifications often occur in a mosaic that cannot easily be differentiated on aerial photography.

Current Conditions:

Currently much of the historically occurring wet flatwoods has been invaded by woody encroachment, particularly by black titi and titi or baygall vegetation due to lack of frequent fire. Some historic wet flatwoods in LTSF have been planted with slash pine and managed as pine plantations with varying degrees of disturbance from site preparation (bedding, herbicides, etc.). Dense, unthinned planted pine stands on historic wet flatwoods are mapped as pine plantations.

The canopy layer for the wet flatwoods community is typically dominated by slash pine and/or pond pine, and also includes sweetgum, tuliptree, sweetbay, loblolly pine, and water oak. Traditional subcanopy species have been combined in the shrub layer for the wet flatwoods community and includes mountain azalea, coastal sweetpepperbush, titi, gallberry, fetterbush, Piedmont staggerbush (*Lyonia mariana*), wax myrtle, fourpetal St. John's wort, sparkleberry, and highbush blueberry. Vines found in the wet flatwoods include muscadine, cat greenbrier, and laurel greenbrier. The herbaceous layer includes broomsedge bluestem, switchcane, false nettle, cinnamon fern, maidencane, Virginia chain fern, and tall yelloweyed grass. One

location for the state-threatened hooded pitcherplant (*Sarracenia minor*) was recorded within the wet flatwoods community.

Fire Regimes:

Historically, the fire return interval in wet flatwoods is three to 10 years. However, in areas of heavy fire exclusion and/or densely planted slash pine, mechanical vegetation removal and/or a more frequent fire return interval of two to four years may need to be applied for initial restoration.

Management Needs:

Restore hardwood-invaded areas, minimize soil-disturbing practices, and use prescribed fire at the recommended intervals. Restoration of bay-invaded areas may be achieved by either burning these areas or by mechanical removal of bays and titi prior to burning. However, care should be taken not to disrupt the soil surface severely, which is crucial for ensuring recovery of the herbaceous layer, especially wiregrass. Fire management in wet flatwoods is similar to that of mesic flatwoods and is vital for sustaining a rich diversity of herbaceous species. Wet flatwoods should be allowed to burn along with surrounding mesic flatwoods communities.

O. Managed Community Types

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

1. Pine Plantation

Description:

Pine plantations mapped on LTSF are located within historic sandhill, mesic flatwoods, wet flatwoods, and upland pine and have desired future condition (DFC) matching those communities.

Current Conditions:

Pine plantations are areas altered by silvicultural activities, and if left unmanaged, can lead to a loss of biodiversity in groundcover and other desirable understory species. Some historic pine flatwoods, sandhill, and upland pine on LTSF that were converted to pine plantation in the past have since been thinned to a more natural basal area and frequently burned to restore a natural groundcover structure and composition. These were mapped as the natural community or restoration areas.

Pine plantations occur across LTSF and have a dense canopy of planted slash pine, loblolly pine, and longleaf pine. A subcanopy includes smaller canopy species and red maple, common persimmon, sweetgum, southern magnolia, sweetbay, wax myrtle, Carolina laurelcherry, southern red oak, laurel oak, bluejack oak, turkey oak, swamp laurel oak, blackjack oak, and water oak. Shrubs are variable and can include groundsel tree (*Baccharis halimifolia*), American beautyberry, common persimmon, peelbark St. John's wort, large gallberry, sweetgum, sweetbay, wax myrtle, laurel oak, bluejack oak, swamp

laurel oak, water oak, winged sumac, Japanese privet (*Ligustrum japonicum*), sawtooth blackberry (*Rubus pennsylvanicus*), sparkleberry, and highbush blueberry.

The herbaceous layer may be sparse to moderate, depending on the history of thinning, burning and/or herbicide treatments. Herbaceous species may be extremely diverse as they contain elements of the various historic communities they once were. Bedded pine plantations with a dense pine canopy often have a thick layer of pine needles and contain very little herbs. Herbaceous species found in pine plantations include purple bluestem (*Andropogon glomeratus* var. *glaucoptis*), bluestem, broomsedge bluestem, wiregrass, switchcane, tread softly, rabbitbells, silver croton (*Croton argyranthemus*), Michaux's croton (*Croton michauxii*), witchgrass, fireweed, early whitetop fleabane (*Erigeron vernus*), dogfennel, slender flattop goldenrod (*Euthamia caroliniana*), cinnamon fern, panic grass, purple passion-flower (*Passiflora incarnata*), pitted stripeseed (*Piriqueta cistoides* ssp. *caroliniana*), narrowleaf silkgrass, orange milkwort, bracken fern, savannah meadowbeauty, beaksedge (*Rhynchospora* sp.), nutrush, whip nutrush, sweet goldenrod, goldenrod, coastalplain dawnflower (*Stylisma patens*), hoary-pea (*Tephrosia* sp.), Ohio spiderwort (*Tradescantia ohiensis*), wavyleaf noseburn (*Tragia urens*), forked bluecurls, and netted chain fern. Vines included peppervine, yellow jessamine, Virginia creeper, earleaf greenbrier, cat greenbrier, eastern poison ivy, and muscadine.

Fire Regimes:

Refer to the historic community. Historic pyrogenic communities may require more frequent fire in the beginning than is typical for the historic natural community.

Management Needs:

Thinning of pines in historically pyrogenic sites would promote restoration to desired future conditions, but planting of native species such as longleaf pine and wiregrass, as well as frequent prescribed burns, would provide the greatest benefit. In areas with good quality groundcover, especially where wiregrass is present, avoid using herbicides to reduce shrub and grass competition when planting longleaf pines. Priority should be given to burning areas of higher quality groundcover, using frequent growing-season fires to encourage herbaceous species, especially wiregrass, to reproduce naturally.

P. Other Altered Landcover Types

Description:

Altered landcover types are areas where the natural community has been overwhelmingly altered as a result of human activity. Pine plantation, successional hardwood forest, successional hydric shrubland/forest and restoration natural communities are described in separate sections of this report.

The altered landcover types described in this section are often not appropriate areas for restoration. If restoration is desired, the target future condition of the ruderal habitat is dependent on the historic community. Please refer to the appropriate community type for a more specific explanation of the desired future condition.

Current Conditions:

Altered landcover types at LTSF comprise abandoned field/abandoned pasture, artificial ponds, clearing, developed, impoundment, roads, and utility corridor.

Clearing – (158 acres) – Recent or historic clearings that have significantly altered the groundcover and/or overstory of the original natural community (old home sites, etc.), clearings of unknown origin.

Developed (39 acres) – Check stations, parking lots, buildings, maintained lawns (as part of Recreation, business, or residential areas), botanical or ornamental gardens, campgrounds, Recreation, industrial, and residential areas.

Impoundment (15 acres) - Stream or watershed impoundment.

Road (207 acres) – Paved or unpaved.

Successional Hardwood Forest (515 acres) – Successional hardwood forests are defined as closed-canopied forests dominated by fast growing hardwoods such as laurel oak, water oak, and/or sweetgum, often with remnant pines. The majority of successional hardwood forest on LTSF is historic upland pine, sandhill, and mesic flatwoods.

Successional Hydric Shrubland/Forest (8 acres) - Successional hydric shrubland / forests at LTSF are dense stands of shrubs that have invaded herbaceous depression marshes due to lengthy fire-suppression and/or hydrological alterations. Successional hydric shrubland/forests mapped on LTSF are historic depression marshes.

Utility Corridor (96 acres) - Electric, gas, telephone right-of-ways.

Wildlife Food Plot (116 acres) - Planted or unplanted areas to benefit wildlife or game species; includes dove fields; if not maintained these areas are often dominated by weedy native and non-native species.

Fire Regimes:

N/A

Management Needs:

It may not be practical or desirable to restore some of the altered landcover types (e.g., developed land, roads, etc.) to the historic natural community. However, long term hydrology restoration that includes the removal of certain road beds and ditches would be highly beneficial to the natural communities on the site.

VIII. References

Florida Department of State, Division of Historical Resources. Revised 2013. Management Procedures for Archaeological and Historical Sites and Properties on State-Owned or Controlled Lands. Tallahassee, Florida.

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United States Department of Agriculture, Natural Resources Conservation Service. Web Soil Survey. Survey Area Data: Gadsden (Version 26), Leon (Version 18), Liberty (Version 25), and Wakulla (Version 16) counties, Florida; Survey Area Data: Jun 11, 2020; retrieved from <https://websoilsurvey.sc.egov.usda.gov>.

IX. Glossary of Abbreviations

ARC	Acquisition and Restoration Council
ARM	Archaeological Resource Management
BMAP	Basin Management Action Plan
BMP	Best Management Practices
CARL	Conservation and Recreation Lands Acquisition Program
DEP	Department of Environmental Protection
DFC	Desired Future Condition
DHR	Division of Historical Resources
DSO	Direct Support Organization
F.A.C.	Florida Administrative Code
FDACS	Florida Department of Agriculture and Consumer Services
FFS	Florida Forest Service
FNAI	Florida Natural Areas Inventory
F.S.	Florida Statutes
FWC	Florida Fish and Wildlife Conservation Commission
LTSF	Lake Talquin State Forest
NRCS	Natural Resources Conservation Service
NWFWMD	Northwest Florida Water Management District
OALE	Office of Agricultural Law Enforcement, FDACS
OFW	Outstanding Florida Waters
OPS	Other Personal Services Employment
TFC	Tallahassee Forestry Center

TIITFBoard of Trustees of the Internal Improvement Trust Fund
USDA.....United States Department of Agriculture
USFWSUnited States Fish and Wildlife Service
WMAWildlife Management Area

LAKE TALQUIN STATE FOREST
2023 LAND MANAGEMENT PLAN

EXHIBITS

Exhibit A

Ten-Year Management Accomplishment Summary

Lake Talquin State Forest
10-Year Accomplishments

Site Preparation	Chop Single Pass	No.	205
	Disk/Raking	Acres	30
	Burning	Acres	850
	Herbicide	Acres	948
	Other	Acres	60

Planting	Longleaf Containerized	No.	617,973
		Acres	850

Seedling Survival Checks	Survival Checks	Acres	702
	Plots	No.	70

Timber Stand Improvement	Herbicide	Acres	55
	Mowing	Acres	36

Timber Sales	Marking	Acres	1325
	Cruising	Acres	1694
	Harvest	Acres	1517

Timber Inventory	Inventory Update	Acres	23,235
	New Inventory	Acres	4,656
	Plots	Acres	2,129

Invasive Species Control	Japanese Climbing Fern	Acres	291
	Cogon Grass	Acres	48
	China Berry	Acres	14
	Mimosa	Acres	5
	Coral Ardisia	Acres	4
	Chinese Tallow	Acres	2
	Chinese Privet	Acres	3
	Other	Acres	33

Fire	Wildfire	No.	1
		Acres	5
	Prescribed Burning	No.	7
		Acres	38,178

Recreation	Day Use Estimated Forest Visitors	No.	3,172,132
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	Overnight Primitive Camping	No.	13587
	Annual Entrance Pass	No.	96
	OOF Hunts	No.	17

Roadwork	Roads Constructed	Miles	2
	Roads Graded	Miles	472
	Roads Rebuilt	Miles	18
	Bridge Built	No.	1
	Bridge Repaired	No.	4
	Culverts Installed	No.	7
	Culverts Repaired	No.	5
	Low Water Crossing	No.	13
	Other	No.	32

Boundary Maintenance	Maintenance/Marking	Miles	168
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I&E Activities	Programs/Tours	No.	335
	Radio/TV Articles	No.	5

Other Activities	Road Mowed	Miles	868
	Gate Repaired	No.	12
	Gate Installed	No.	9
	Trail Maintenance	Miles	1,231
	Prescribed Burn Evaluation	Acres	25,875
	Ditch Crossing Installed	No.	1
	Rx Evaluations (follow-up)	Acres	34,570

Exhibit B

Boundary and Road Map

Exhibit C

Optimal Management Boundary Map



Exhibit D

Facilities, Recreation, and Improvements Map

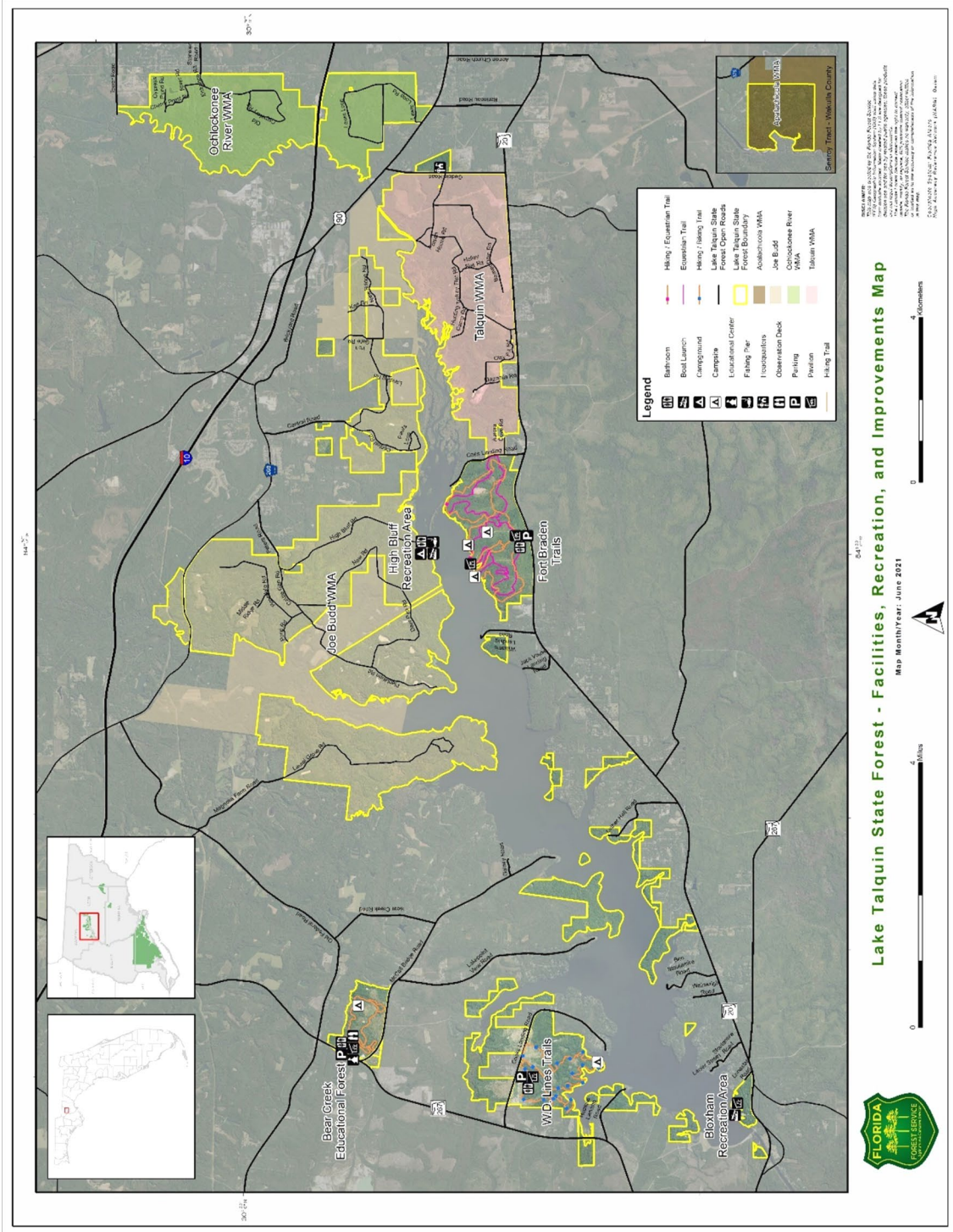


Exhibit E

Tract and Acreage Map

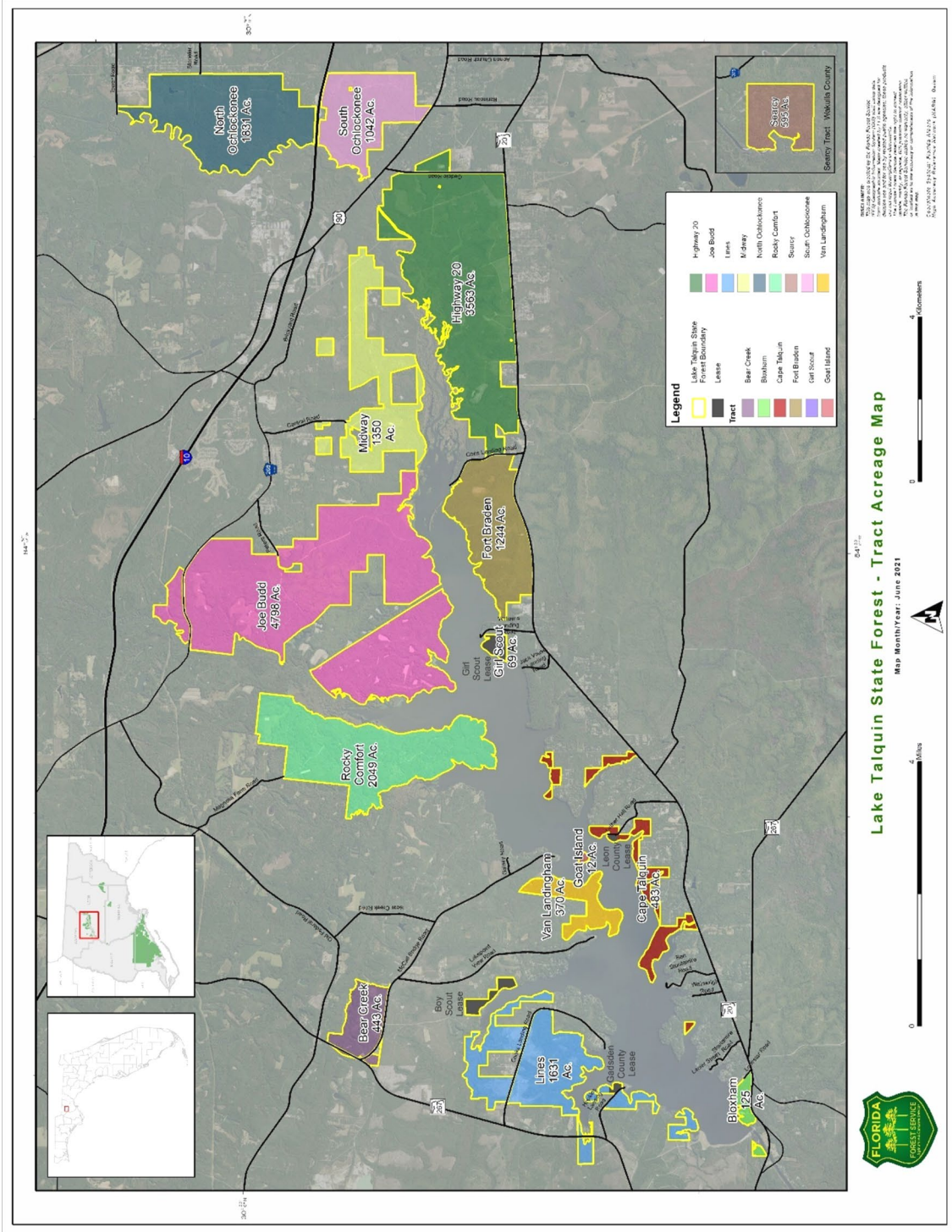


Exhibit F

Proximity to Significant Managed Lands

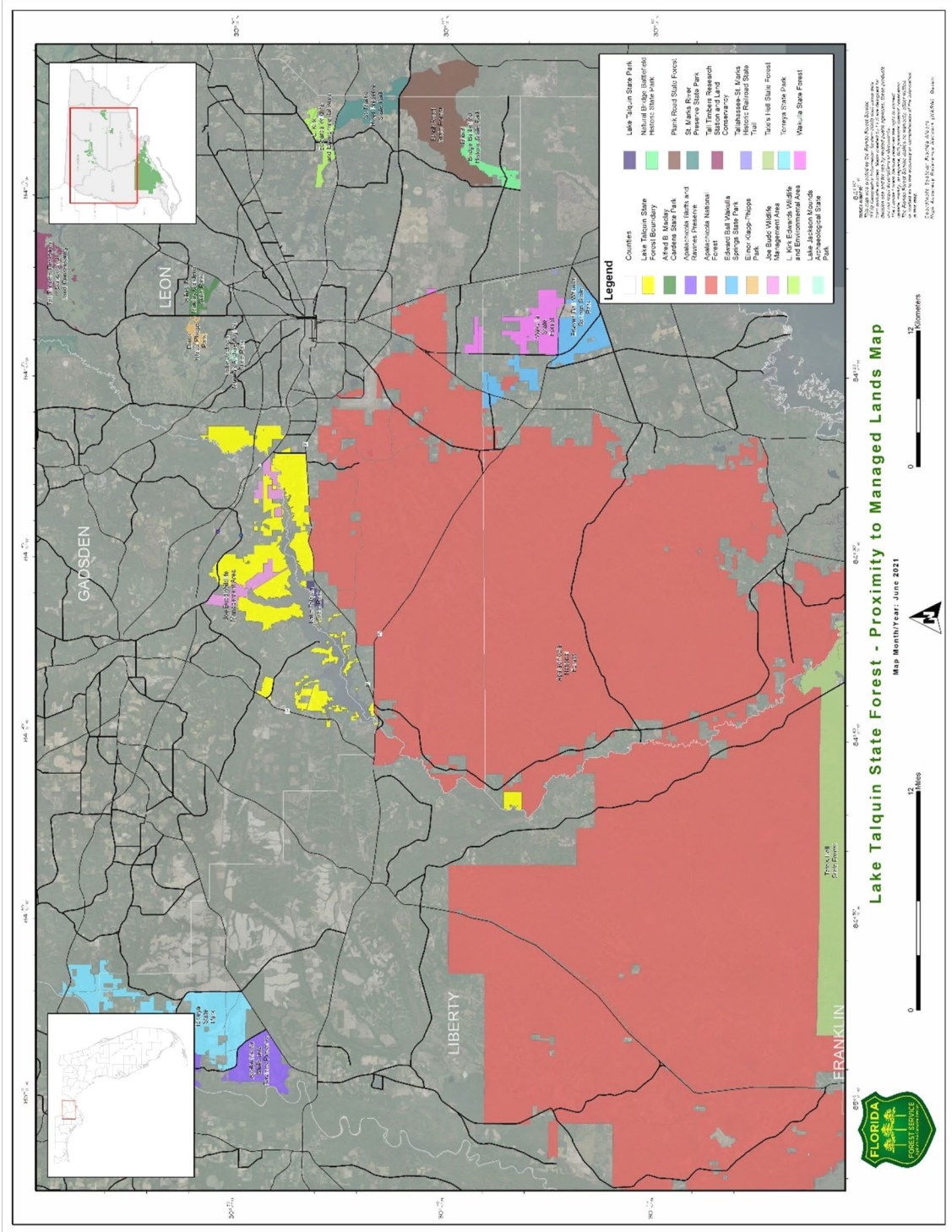


Exhibit G

Florida Forever Projects

2021 Florida Forever Five-Year Plan

***Hosford Chapman's Rhododendron
Protection Zone***

Summary of Recommendations and Status
as of
December 2020



Division of State Lands
Florida Department of Environmental Protection



Hosford Chapman's Rhododendron Protection Zone

Less-Than-Fee Project
Gadsden, Liberty

Project-at-a-Glance

Year Added to Priority List	2002
Project Acres	6,923
Acquired Acres	0
Cost of Acquired Acres	\$0
Remaining Project Acres	6,923
2019 Assessed Value of Remaining Acres	\$10,942,665

Purpose for State Acquisition

The purpose for this project is to preserve a habitat for one of only two core populations of the rare Chapman's Rhododendron, a federally listed plant that is found in the world only in three Panhandle counties of Florida (Gulf, Gadsden and Liberty counties). This proposal is for a conservation easement. On the western portion of the project, the easement that would cover about 70 percent of the known Hosford area Chapman's Rhododendron. The eastern portion has greater potential for diverse forms of resource-based recreation. The project is located in an area the Office of Greenways and Trails (OGT) of the Florida Department of Environmental Protection (DEP) has identified as a priority ecological greenway area that would augment the value of the Lake Talquin State Forest and help Gadsden County increase its resource-based recreational opportunities. The Florida Fish and Wildlife Conservation Commission (FWC) identifies this area as potential habitat for a number of rare and imperiled species.

Manager(s)

The Florida Forest Service (FFS) of the Florida Department of Agriculture and Consumer Services. The Office of Environmental Services (OES) will monitor any conservation easements.



General Description

The original boundary of 3,262 acres extended west from State Road 267 in an irregular-shaped block on the west side of Lake Talquin. This project adjoins the Lines Tract of the Lake Talquin State Forest on the northwest side of Lake Talquin. The Wakulla Unit of the Apalachicola National Forest is approximately two miles to the south of this site. About half of this site is historically flatwoods but, over the years, most of this has been converted to pine plantations. About 75 percent of the site is now cultivated as pine plantations. About 15 percent of the site is pine flatwoods. The project has about 1,414 acres of functioning wetlands that would be protected by this acquisition.

On October 24, 2002, 3,648 more acres were added to the project, creating a connection from Lake Talquin to Apalachicola National Forest, and bringing the project GIS-acre total to 6,923 GIS acres.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida black bear	G5T4/S4
Chapman's rhododendron	G1/S1
zigzag silkgrass	G3/S3
Eastern diamondback rattlesnake	G3/S3
<i>4 rare species are associated with the project</i>	

Public Use

The degree of public use that could be enjoyed will be determined by the degree of ownership and public access acquired. Much of the property is proposed as a less-than-fee acquisition. Currently the property is within the Robert Brent Wildlife Management Area, and is open to hunting, hiking, bicycling, horseback riding and nature-appreciation activities. Such activities are, of course, dependent upon permission by the owner. If public access is acquired, the project has the potential for a variety of forest related management activities. The possibility of linking this project to Lake Talquin State Forest would provide activities such as birdwatching, environmental education, hiking, horseback riding, off- road bicycling, hunting, nature study and photography.

Acquisition Planning

2002

The Hosford Chapman's Rhododendron Protection Zone Florida Forever project was added to the 2002 Florida Forever project list at the June meeting of the Acquisition and Restoration



Council (ARC) as a Group B project. The essential parcel is the St. Joe Timberlands and Blairwoods tract which makes the connection to the Lake Talquin State Forest (3,249 acres).

On October 24, 2002, ARC approved the addition of 3,648 acres to the project boundary. This addition formed the connection from the Lake Talquin State Forest to the Apalachicola National Forest

2011

On December 9, 2011, this project was placed in the Less-than-Fee category of Florida Forever projects.

Coordination

The Nature Conservancy and the Florida Natural Areas Inventory (FNAI) are considered acquisition partners. No alternative funding sources have been identified for the project.

Management Policy Statement

The primary goals of establishing the Hosford Chapman's Rhododendron Protection Zone project are to restore, maintain and protect in perpetuity the native ecosystems, including the core population of the rare Chapman's Rhododendron. The FFS proposes to manage the project under a multiple-use management regime consistent with the State Forest system, and in a manner designed to accomplish the goals and measures for this project as approved by the ARC. The ecosystem approach will guide the management activities of the FFS on the site.

Management Prospectus

Qualifications for state designation

The major communities represented on this site are flatwoods and sandhills. The project's location and diversity make it desirable as an addition to the Lake Talquin State Forest. Its management as a state forest, or its oversight as a conservation easement, will depend upon the level of title acquired by the Board of Trustees. The highest level of protection for the rare species would be accomplished by fee simple acquisition. Parcels acquired in fee simple would be added to the state forest, contingent on obtaining some level of public access to the site.

Manager

FFS/DACS proposes to manage this site as part of the Lake Talquin State Forest with Tallahassee District Headquarters personnel.



Conditions affecting intensity of management

Portions of the project have been disturbed and will require restoration. Management on these sites would be structured toward creating optimal conditions for propagation of the rhododendrons. This would preclude more intensive restoration, such as some types of mechanical understory control and site preparation. Certain types of public use, if acquired, may be reduced in the most sensitive areas of the project. Additionally, water-resource development projects, stormwater management projects and any linear facilities are considered incompatible with this ecosystem and with the resource value of this project.

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

If the site is a less-than-fee acquisition, management and public use will be consistent with the terms of each conservation easement. Initial and intermediate management efforts will concentrate on site security, public access, fire management, resource inventory, reforestation of areas where off-site species have been harvested, natural regeneration of native species, and any restoration activity. Steps will be taken to ensure that the public is provided appropriate access while simultaneously affording protection of sensitive resources.

Revenue-generating potential

Timber sales will be conducted as needed to improve or maintain desirable ecosystems. These sales will primarily take place in upland pine stands and provide a variable source of revenue, dependent on a variety of factors. Due to the existing condition of the timber resource on this property, the revenue potential of this project is expected to be medium.

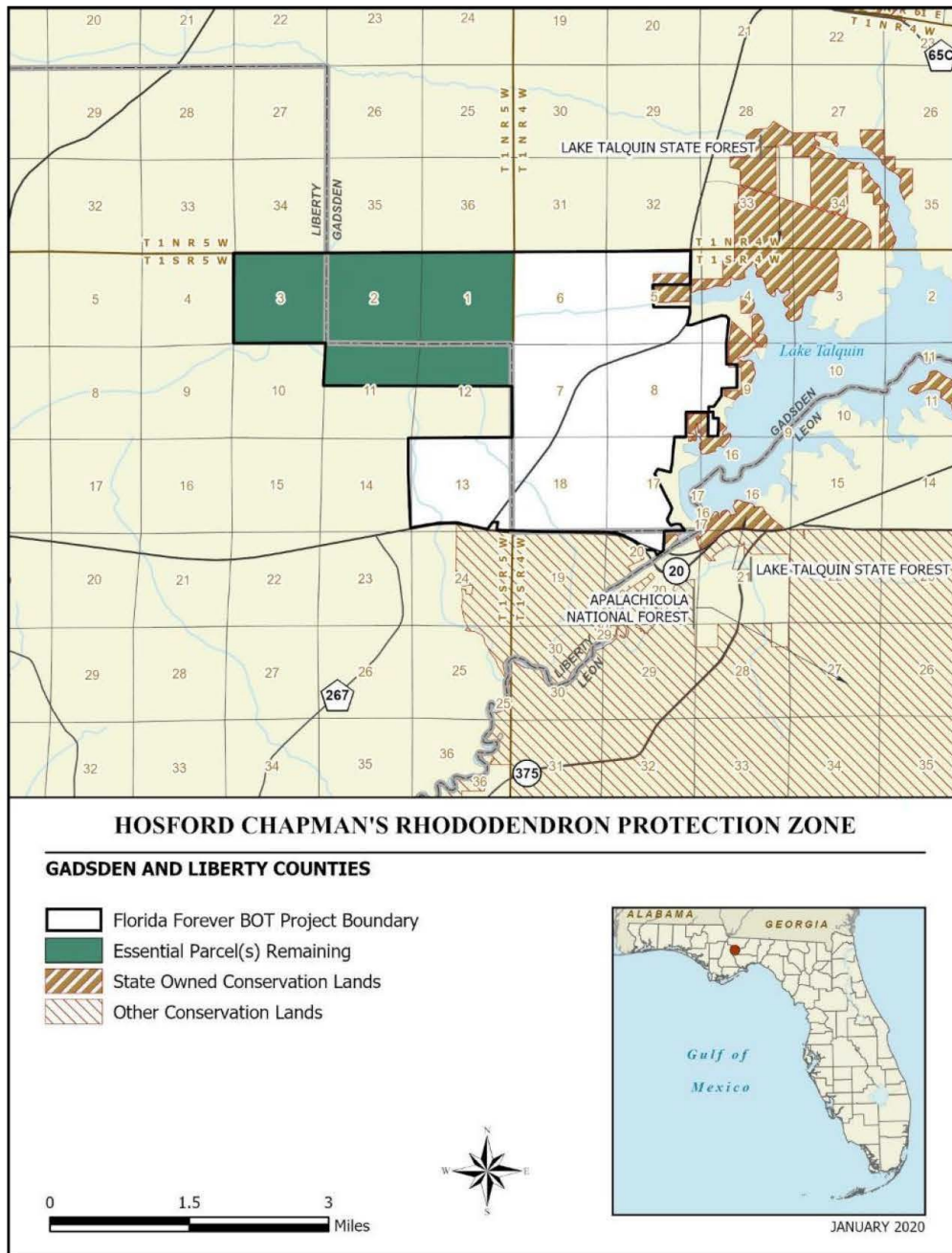
Cooperators in management activities

The FFS will cooperate with and seek the assistance of other state agencies, local government entities and other interested parties as appropriate.

Management Cost Summary

<u>FFS</u>	<u>Recurring</u>
Salary (1 FTE)	\$29,000
OCO	\$40,900

Source: Management Prospectus as originally submitted



Map 1 : FNAI, January 2021

2021 Florida Forever Five-Year Plan

Little River Conservation Area

Summary of Recommendations and Status
as of
December 2020



Division of State Lands
Florida Department of Environmental Protection



Little River Conservation Area

Less-Than-Fee Project
Gadsden

Project-at-a-Glance

Year Added to Priority List	2004
Project Acres	2,085
Acquired Acres	0
Cost of Acquired Acres	\$0
Remaining Project Acres	2,085
2019 Assessed Value of Remaining Acres	\$5,689,604

Purpose for State Acquisition

Purchase of a less-than-fee-simple interest in the Little River Conservation Area would protect a portion of the Little River watershed while maintaining a scenic and undeveloped rural area outside an expanding urban area. A conservation easement would preserve habitat for wildlife and game species, protect forested land, and provide support for the owner's ongoing efforts to restore the property to a natural longleaf pine community. This would fulfill Florida Forever goals of increasing protection of Florida's biodiversity at the species, natural community, and landscape levels; protecting, restoring and maintaining the quality and natural functions of land, water, and wetland systems of the state; and increasing the amount of forestland available for sustainable management of natural resources. Due to its proximity of the Lake Talquin State Forest, managed by Florida Division of Forestry, and Joe Budd Wildlife Management Area, managed by the Florida Fish and Wildlife Conservation Commission, acquiring a conservation easement would also enhance coordinating and completing other land acquisition projects.

Manager(s)

The Office of Environmental Services (OES) is designated to monitor the easement.

General Description

The Little River Conservation Area is situated within the Tallahassee Red Hills region and consists of an upland ridge about 2.4 miles long and 0.75 miles wide, forming the drainage divide between the Little River on its northwest side and its tributary, Hurricane Creek, on the southeast side, and extending to their confluence of the total area. The original upland natural community was probably either upland pine forest, or sandhill, or the site are in pine plantation, approximately 63 percent at the south end of the property. Most of the uplands on both. Hardwood (slope) forest (4 percent) occupies the steeper slopes that extend for about a mile above the Little River. Most of the remainder of the project is occupied by floodplain/bottomland forest and floodplain swamp along the drainage ways with some of the higher transitional areas in baygall and wet flatwoods. The western portion of the project encompasses about 375 acres of floodplain along Little River at its confluence with Quincy Creek.

FNAI Element Occurrence Summary

<u>FNAI Elements</u>	<u>Score</u>
Florida black bear	G5T4/S4
<i>pyramid magnolia</i>	G4/S3
<i>mountain laurel</i>	G5/S3
<i>3 rare species are associated with the project</i>	

Public Use

The project is being offered as a less-than-fee purchase without public access. Hence, the project does not satisfy any of the year 2005 needs reflected in the 2000 Florida Statewide Comprehensive Outdoor Recreation Plan. Without public access, there will not be any public resource-based outdoor recreation potential for the project. Due to an indicated lack of general public access for hunting, the Florida Fish and Wildlife Conservation Commission advises that there would be no public hunting potential.

Acquisition Planning

2004

The project has 2,057 (GIS) acres in east-central Gadsden County under a single owner and is proposed for less-than-fee acquisition. The Woodlands Company, Inc. of Quincy Florida, submitted this project. The Gadsden County Property Appraiser's office lists the tax assessed value of the entire project as \$355,820 in 2004. The easement would be a single purchase.



2011

On December 9, 2011, this project was placed in the Less-than-Fee category of Florida Forever projects.

Coordination

There are no acquisition partnerships.

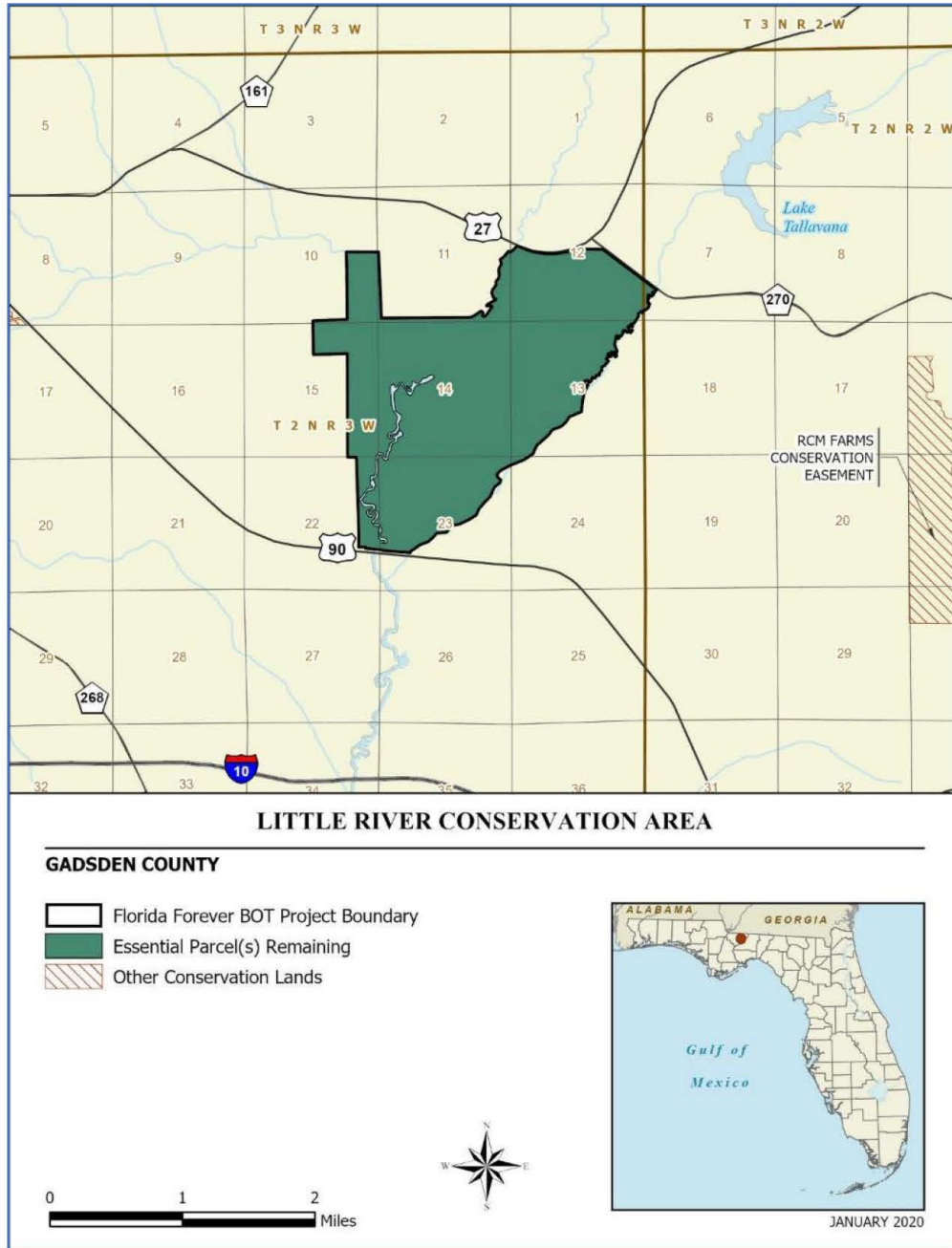
Management Policy Statement

As a conservation easement or less-than-fee interest, the project will be managed by the private landowner with restrictions. The purchase of the development rights, the prohibition of the further conversion of existing natural areas to more intensive uses and limited public access will likely be the primary focus of the conservation easement.

Management Prospectus

Qualifications for state designation

As a less-than fee acquisition, a conservation easement over this parcel will preserve a working Florida landscape and protect existing natural areas from conversion to alternative uses. The development of additional structures and facilities on the parcel will be controlled through the terms of the conservation easement. The Office of Environmental Services, or its successor, to ensure the terms of the easement are adhered to and that undue degradation of the resources on the tract does not occur, will coordinate monitoring of the conservation easement on this tract.



Map 1 : FNAI, January 2021

Exhibit H

Department of State Report on Archeological Sites and Historical Sites



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

October 1, 2020



Patti Anderson

Land Management Planner
Florida Forest Service
Florida Department of Agriculture and Consumer Services
(850) 681-5889
Patricia.Anderson@FDACS.gov

In response to your request of September 30, 2020, the Florida Master Site File lists 37 archeological sites, five cemeteries and one resource groups recorded at Lake Talquin State Forest located in Gadsden, Leon, Liberty, and Wakulla counties.

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

- This search area may contain *unrecorded* archaeological sites, historical structures or other resources even if previously surveyed for cultural resources.
- Because vandalism and looting are common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- While many of our records document historically significant resources, the documentation of a resource at the Florida Master Site File does not necessarily mean the resource is historically significant.
- Federal, state and local laws require formal environmental review for most projects. This search **DOES NOT** constitute such a review. If your project falls under these laws, you should contact the Compliance and Review Section of the Division of Historical Resources at 850-245-6333.

#

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

Kind Regards,

Eman M. Vovsi, Ph.D.
Sr. Data Base Analyst
Florida Master Site File
Eman.Vovsi@DOS.MyFlorida.com



AR=37

SS=0

CM=5

RG=2

BR=0

Total=44

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
GD00113	AR	NN				
GD00114	AR	NN	Unspecified			
GD00125	AR	SUBER	UNSP			
GD00303	AR	RICHLANDER CREEK	QUINCY			
GD00310	AR	GADSDEN STATION 7	MIDWAY GV			
GD00406	AR	P81-1	QUINCY		Not Eligible	
GD00407	AR	P81-2	QUINCY		Not Eligible	
GD00460	AR	OCHLOCKNEE RIVER WEST	MIDWAY			
GD00701	AR	LITTLE RIVER VILLAGE	QUINCY			
GD00702	AR	ROCKY COMFORT SCATTER	QUINCY			
GD00703	AR	ROCKY COMFORT HOMESTEAD	QUINCY			
GD00704	AR	FRANCIS	QUINCY			
GD00705	AR	ANIMAL PEN	QUINCY			
GD00706	AR	CORAL BEND	QUINCY			
GD00707	AR	LONE SHERD	QUINCY			
GD00708	AR	BUNTING	QUINCY			
GD00710	AR	FIVE POINTS	QUINCY			
GD00731	CM	ANTIOCH CHURCH CEMETERY	UNSP	Graves = 400		
GD00756	AR	Green Parrot	Wetumpka			
GD00865	AR	ATW-406.58-01	None		Not Eligible	
GD01006	CM	Harden Cemetery	Midway	Graves = 3	Insufficient Info	
GD02007	AR	Hopkins-1				
LE00014	AR	NN				
LE00553	AR	OCHLOCKNEE RIVER RECREATION AREA				
LE00566	AR	RANGER			Eligible	
LE00567	AR	WILD DOG			Not Eligible	
LE01673	AR	OLD HOUSE POINT	OCHLOCKNEE			
LE01674	AR	OCHLOCKNEE SOUTH	TALLAHASSEE			
LE01676	AR	REST AREA SOUTH	TALLAHASSEE			
LE01677	AR	REST AREA NORTH	Midway			
LE01799	AR	NORTHWEST POINT	TALLAHASSEE GV		Insufficient Info	
LE01807	AR	CAPE TALQUIN 2	TALLAHASSEE			
LE01808	AR	CAPE TALQUIN 3	TALLAHASSEE GV			
LE01896	CM	RUSSELL CEMETERY	NONE			
LE02009	AR	LAKE TALQUIN TURPENTINE CAMP	NONE <4 MI	Established c1889. Graves = 37	Insufficient Info	
LE02101	AR	TENANT HOUSE 1	NONE <4 MI			
LE02103	AR	P125-1	NORFLEET		Not Eligible	
LE02146	AR	MUDDY JENN	MIDWAY			
LE02300	CM	WHATLEY FAMILY	Tallahassee	Established 1860+, Graves = 6		
LE05209	RG	Pensacola and Georgia Railroad	Tallahassee	Linear Resource - 1 Contrib Resources	Eligible	
LE05681	AR	FL-Leon-002-1AR-02	Norfleet		Not Eligible	
LE05685	AR	FL-Leon-002-1AR-03	Norfleet		Not Eligible	
LE05693	CM	CEM-FL-LEON-002AR-A1/Geddie Cemetery	Quincy	Graves = 28	Insufficient Info	
LE06754	RG	Jackson Bluff Dam	Tallahassee	FMSF Building Complex - 6 Contrib Resources	Eligible	

Exhibit I

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

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

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

A. Historic Property Definition

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

B. Agency Responsibilities

Per Chapter 267, F.S. and state policy related to historic properties, state agencies of the executive branch must provide the Division of Historical Resources (Division) the opportunity to comment on any undertakings with the potential to affect historic properties that are listed, or eligible for listing, in the National Register of Historic Places, whether these undertakings directly involve the state agency, i.e., land management responsibilities, or the state agency has indirect jurisdiction, i.e. permitting authority, grants, etc. No state funds should be expended on the undertaking until the Division has the opportunity to review and comment on the undertaking. (267.061(2)(a))

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

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

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

C. Statutory Authority

The full text of Chapter 267, F.S. and additional information related to the treatment of historic properties is available at:

<https://dos.myflorida.com/historical/preservation/compliance-and-review/regulations-guidelines/>

D. Management Implementation

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

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

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

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

E. Archaeological Resource Management (ARM) Training

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

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

F. Matrix for Ground Disturbance on State Lands

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

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

G. Human Remains Treatment

Chapter 872, *Florida Statutes* makes it illegal to willfully and knowingly disturb human remains. In the event human remains are discovered, cease all activity in the area that may disturb the remains. Leave the bones and nearby items in place. Immediately notify law enforcement or the local district medical examiner of the discovery and follow the provisions of Chapter 872, FS. Additional information regarding the treatment of human remains and cemeteries is available at:

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

H. Division of Historical Resources Review Procedure

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

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

* * *

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

Compliance and Review Section
Bureau of Historic Preservation
Division of Historical Resources
R. A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

StateLandsCompliance@dos.myflorida.com

Phone: (850) 245-6333
Toll Free: (800) 847-7278
Fax: (850) 245-6435

Exhibit J

Soil Types Map and Descriptions

Map Unit Description (Brief, Generated)

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

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

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

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

Report—Map Unit Description (Brief, Generated)

Gadsden County, Florida

Map Unit: 2—Albany-Blanton complex, 0 to 5 percent slopes

Component: Albany (50%)

The Albany component makes up 50 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (38%)

The Blanton component makes up 38 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on coastal plains, marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonneau (5%)

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

Component: Chipley (4%)

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

Component: Foxworth (3%)

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

Map Unit: 3—Albany-Ousley-Pelham complex, 0 to 5 percent slopes, occasionally flooded

Component: Albany (39%)

The Albany component makes up 39 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ousley (30%)

The Ousley component makes up 30 percent of the map unit. Slopes are 0 to 5 percent. This component is on stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains, knolls. The parent material consists of sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is occasionally flooded. It is rarely ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, May, June, July, August, September, December. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pelham (16%)

The Pelham component makes up 16 percent of the map unit. Slopes are 0 to 5 percent. This component is on broad flats on flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 13 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (10%)

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

Component: Chipley (5%)

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

Map Unit: 5—Blanton sand, 0 to 5 percent slopes

Component: Blanton (80%)

The Blanton component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on interfluvies on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Fuquay (5%)

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

Component: Bonifay (4%)

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

Component: Alpin (3%)

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

Component: Ocilla (3%)

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

Map Unit: 6—Blanton sand, 5 to 8 percent slopes

Component: Blanton (80%)

The Blanton component makes up 80 percent of the map unit. Slopes are 5 to 8 percent. This component is on interfluvies on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Chipley (5%)

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

Component: Alpin (5%)

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

Component: Lakeland (5%)

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

Map Unit: 9—Bonifay-Alpin complex, 0 to 5 percent slopes

Component: Bonifay (52%)

The Bonifay component makes up 52 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Alpin (38%)

The Alpin component makes up 38 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (5%)

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

Component: Chipley (5%)

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

Map Unit: 10—Bonifay-Albany-Centenary complex, 0 to 5 percent slopes

Component: Bonifay (40%)

The Bonifay component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (25%)

The Albany component makes up 25 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Centenary (20%)

The Centenary component makes up 20 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 51 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Foxworth (10%)

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

Component: Chipley (5%)

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

Map Unit: 11---Troup-Bonifay-Fuquay complex, 8 to 15 percent slopes

Component: Troup (35%)

The Troup component makes up 35 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (30%)

The Bonifay component makes up 30 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Fuquay (25%)

The Fuquay component makes up 25 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Bonneau (5%)

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

Map Unit: 21—Dothan-Fuquay-Cowarts complex, 8 to 15 percent slopes

Component: Dothan (49%)

The Dothan component makes up 49 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Fuquay (20%)

The Fuquay component makes up 20 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Cowarts (19%)

The Cowarts component makes up 19 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Norfolk (8%)

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

Component: Orangeburg (4%)

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

Map Unit: 23—Fuquay-Lucy-Orangeburg complex, 0 to 5 percent slopes

Component: Fuquay (40%)

The Fuquay component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lucy (30%)

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

Component: Orangeburg (20%)

The Orangeburg component makes up 20 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (5%)

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

Component: Dothan (5%)

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

Map Unit: 28—Goldsboro loamy fine sand, 2 to 5 percent slopes

Component: Goldsboro (91%)

The Goldsboro component makes up 91 percent of the map unit. Slopes are 2 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Norfolk (6%)

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

Component: Orangeburg (3%)

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

Map Unit: 30—Lakeland sand, 0 to 5 percent slopes

Component: Lakeland (80%)

The Lakeland component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on hills, coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (6%)

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

Component: Foxworth (5%)

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

Component: Bonifay (5%)

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

Component: Albany (2%)

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

Component: Chipley (2%)

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

Map Unit: 31—Lakeland sand, 5 to 15 percent slopes

Component: Lakeland (90%)

The Lakeland component makes up 90 percent of the map unit. Slopes are 5 to 15 percent. This component is on side slopes, ridges on marine terraces on coastal plains, hills on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Foxworth (6%)

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

Component: Chipley (4%)

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

Map Unit: 32---Leefield-Bonifay-Dothan complex, 0 to 5 percent slopes

Component: Leefield (44%)

The Leefield component makes up 44 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (26%)

The Bonifay component makes up 26 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dothan (23%)

The Dothan component makes up 23 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (4%)

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

Component: Lakeland (3%)

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

Map Unit: 36—Lucy-Orangeburg-Cowarts complex, 15 to 45 percent slopes

Component: Lucy (49%)

The Lucy component makes up 49 percent of the map unit. Slopes are 15 to 45 percent. This component is on hillslopes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine and fluvial deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Orangeburg (21%)

The Orangeburg component makes up 21 percent of the map unit. Slopes are 15 to 45 percent. This component is on hillslopes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Cowarts (19%)

The Cowarts component makes up 19 percent of the map unit. Slopes are 15 to 45 percent. This component is on hillslopes on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (7%)

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

Component: Lakeland (4%)

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

Map Unit: 40—Cowarts-Dothan-Fuquay complex, 15 to 60 percent slopes

Component: Cowarts (50%)

The Cowarts component makes up 50 percent of the map unit. Slopes are 15 to 60 percent. This component is on hillslopes on coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Dothan (25%)

The Dothan component makes up 25 percent of the map unit. Slopes are 15 to 60 percent. This component is on hillslopes on coastal plains. The parent material consists of loamy marine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 43 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Fuquay (17%)

The Fuquay component makes up 17 percent of the map unit. Slopes are 15 to 60 percent. This component is on hillslopes on coastal plains. The parent material consists of sandy marine deposits over loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 43 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Lucy (5%)

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

Component: Nankin (3%)

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

Map Unit: 41—Norfolk loamy fine sand, 0 to 2 percent slopes

Component: Norfolk (85%)

The Norfolk component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on interfluvies, coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 1. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Bonneau (4%)

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

Component: Orangeburg (4%)

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

Component: Dothan (3%)

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

Component: Nankin (2%)

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

Component: Goldsboro (2%)

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

Map Unit: 43—Ocilla sand, 0 to 5 percent slopes

Component: Ocilla (85%)

The Ocilla component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on stream terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Pelham (5%)

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

Component: Blanton (3%)

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

Component: Goldsboro (2%)

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

Map Unit: 46—Orangeburg loamy sand, 2 to 5 percent slopes

Component: Orangeburg (80%)

The Orangeburg component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on broad interstream divides, coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. Irrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Benevolence (10%)

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

Component: Faceville (5%)

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

Component: Lucy (3%)

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

Component: Norfolk (2%)

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

Map Unit: 47—Orangeburg-Tifton-Norfolk complex, 5 to 8 percent slopes

Component: Orangeburg (48%)

The Orangeburg component makes up 48 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, coastal plains. The parent material consists of loamy and clayey marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Tifton (26%)

The Tifton component makes up 26 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Norfolk (19%)

The Norfolk component makes up 19 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges, coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 44 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Faceville (7%)

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

Map Unit: 48—Fuquay-Orangeburg-Norfolk complex, 8 to 15 percent slopes

Component: Fuquay (45%)

The Fuquay component makes up 45 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Orangeburg (25%)

The Orangeburg component makes up 25 percent of the map unit. Slopes are 8 to 15 percent. This component is on side slopes and hills on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Norfolk (21%)

The Norfolk component makes up 21 percent of the map unit. Slopes are 8 to 10 percent. This component is on hills on marine terraces on coastal plains, ridges on marine terraces on coastal plains. The parent material consists of loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (5%)

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

Component: Cowarts (4%)

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

Map Unit: 51—Plummer sand, 0 to 5 percent slopes

Component: Plummer (85%)

The Plummer component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 8 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (8%)

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

Component: Sapelo (7%)

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

Map Unit: 52—Rains fine sandy loam

Component: Rains (86%)

The Rains component makes up 86 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of loamy and clayey marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (9%)

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

Component: Pelham (5%)

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

Map Unit: 59—Troup-Lakeland-Lucy complex, 2 to 8 percent slopes

Component: Troup (50%)

The Troup component makes up 50 percent of the map unit. Slopes are 2 to 8 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lakeland (21%)

The Lakeland component makes up 21 percent of the map unit. Slopes are 2 to 8 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lucy (16%)

The Lucy component makes up 16 percent of the map unit. Slopes are 2 to 8 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine and fluvial deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Alpin (7%)

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

Component: Fuquay (6%)

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

Map Unit: 63—Troup-Nankin complex, 15 to 45 percent slopes

Component: Troup (50%)

The Troup component makes up 50 percent of the map unit. Slopes are 15 to 45 percent. This component is on hillslopes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Nankin (35%)

The Nankin component makes up 35 percent of the map unit. Slopes are 15 to 45 percent. This component is on hillslopes on marine terraces on coastal plains. The parent material consists of stratified loamy and clayey marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Fuquay (10%)

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

Component: Bonifay (5%)

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

Map Unit: 65—Udorthents, reclaimed

Component: Udorthents (100%)

The Udorthents component makes up 100 percent of the map unit. Slopes are 0 to 3 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of mine spoil or earthy fill. Depth to a root restrictive layer is greater than 60 inches. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. This soil does not meet hydric criteria.

Map Unit: 66—Pickney, Dorovan, and Bibb soils, frequently flooded

Component: Pickney (32%)

The Pickney component makes up 32 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains, flats on stream terraces on marine terraces on coastal plains, depressions on stream terraces on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dorovan (29%)

The Dorovan component makes up 29 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on flood plains on marine terraces on coastal plains. The parent material consists of organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 50 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (25%)

The Bibb component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of stratified loamy and sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 8 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Leon (9%)

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

Component: Rutlege (5%)

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

Map Unit: 69—Lucy-Bonifay-Orangeburg complex, 5 to 8 percent slopes

Component: Lucy (38%)

The Lucy component makes up 38 percent of the map unit. Slopes are 5 to 8 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine and fluvial deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bonifay (28%)

The Bonifay component makes up 28 percent of the map unit. Slopes are 5 to 8 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Orangeburg (22%)

The Orangeburg component makes up 22 percent of the map unit. Slopes are 5 to 8 percent. This component is on side slopes and ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Fuquay (7%)

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

Component: Troup (5%)

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

Map Unit: 71—Cowarts-Nankin complex, 2 to 5 percent slopes

Component: Cowarts (41%)

The Cowarts component makes up 41 percent of the map unit. Slopes are 2 to 5 percent. This component is on interfluvies on coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer, densic material, is 30 to 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Nankin (39%)

The Nankin component makes up 39 percent of the map unit. Slopes are 2 to 5 percent. This component is on interfluvies, coastal plains. The parent material consists of marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Faceville (7%)

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

Component: Tifton (7%)

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

Component: Ailey (6%)

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

Map Unit: 77—Bonifay-Fuquay complex, 0 to 5 percent slopes

Component: Bonifay (49%)

The Bonifay component makes up 49 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Fuquay (40%)

The Fuquay component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridgetops and knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 54 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lucy (7%)

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

Component: Troup (4%)

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

Map Unit: 79—Hurricane and Chipley soils, 0 to 3 percent slopes

Component: Hurricane (50%)

The Hurricane component makes up 50 percent of the map unit. Slopes are 0 to 3 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during January, February, March, April, August, September, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (41%)

The Chipley component makes up 41 percent of the map unit. Slopes are 0 to 3 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (6%)

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

Component: Leon (3%)

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

Map Unit: 80—Foxworth-Lakeland complex, 0 to 5 percent slopes

Component: Foxworth (53%)

The Foxworth component makes up 53 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lakeland (32%)

The Lakeland component makes up 32 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (8%)

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

Component: Hurricane (7%)

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

Map Unit: 82—Chipley-Foxworth complex, 0 to 5 percent slopes

Component: Chipley (46%)

The Chipley component makes up 46 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Foxworth (40%)

The Foxworth component makes up 40 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (9%)

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

Component: Blanton (5%)

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

Map Unit: 83---Foxworth-Lakeland complex, 5 to 15 percent slopes

Component: Foxworth (47%)

The Foxworth component makes up 47 percent of the map unit. Slopes are 5 to 15 percent. This component is on side slopes, hills on marine terraces on coastal plains, ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lakeland (41%)

The Lakeland component makes up 41 percent of the map unit. Slopes are 5 to 15 percent. This component is on side slopes, hills on marine terraces on coastal plains, ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (7%)

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

Component: Hurricane (5%)

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

Map Unit: 85---Bonifay-Leon-Chipley complex, 0 to 5 percent slopes

Component: Bonifay (38%)

The Bonifay component makes up 38 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during January, February, March, August, September. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Leon (27%)

The Leon component makes up 27 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (25%)

The Chipley component makes up 25 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (8%)

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

Component: Blanton (2%)

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

Map Unit: 86—Leon, Clara, and Pickney soils, commonly flooded

Component: Leon (31%)

The Leon component makes up 31 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains, stream terraces on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Clara (30%)

The Clara component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of thin layer of organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, June, July, August, September, December. Organic matter content in the surface horizon is about 50 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pickney (29%)

The Pickney component makes up 29 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, June, July, August, September, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (5%)

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

Component: Hurricane (5%)

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

Map Unit: 88—Rutlege, Bibb, and Surrency soils, frequently flooded

Component: Rutlege (38%)

The Rutlege component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on low stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (27%)

The Bibb component makes up 27 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of stratified loamy and sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during February. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Surrency (25%)

The Surrency component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Leon (7%)

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

Component: Plummer (3%)

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

Map Unit: 89---Bibb-Rains-Garcon complex, occasionally flooded

Component: Bibb (40%)

The Bibb component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of stratified loamy and sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 8 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rains (25%)

The Rains component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of loamy and clayey marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Garcon (24%)

The Garcon component makes up 24 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad flats on low stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ousley (8%)

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

Component: Pelham (3%)

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

Map Unit: 90—Hosford and Plummer mucky sands, 2 to 12 percent slopes

Component: Hosford (53%)

The Hosford component makes up 53 percent of the map unit. Slopes are 2 to 12 percent. This component is on lower side slopes and seeps on of uplands marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 12 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer (41%)

The Plummer component makes up 41 percent of the map unit. Slopes are 2 to 5 percent. This component is on slopes of side slopes toes on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, December. Organic matter content in the surface horizon is about 10 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rutlege (6%)

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

Map Unit: 93---Foxworth-Blanton-Chipley complex, 0 to 5 percent slopes

Component: Foxworth (45%)

The Foxworth component makes up 45 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (24%)

The Blanton component makes up 24 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (20%)

The Chipley component makes up 20 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (6%)

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

Component: Hurricane (5%)

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

Map Unit: 94—Albany-Garcon-Bibb complex, 0 to 5 percent slopes, occasionally flooded

Component: Albany (33%)

The Albany component makes up 33 percent of the map unit. Slopes are 0 to 5 percent. This component is on flats on stream terraces on marine terraces on coastal plains, rises on stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Garcon (28%)

The Garcon component makes up 28 percent of the map unit. Slopes are 0 to 5 percent. This component is on broad flats on low stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (26%)

The Bibb component makes up 26 percent of the map unit. Slopes are 0 to 5 percent. This component is on flats on flood plains on marine terraces on coastal plains. The parent material consists of stratified loamy and sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 8 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (7%)

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

Component: Eunola (6%)

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

Map Unit: 96—Pelham sand, 0 to 5 percent slopes

Component: Pelham (87%)

The Pelham component makes up 87 percent of the map unit. Slopes are 0 to 5 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 13 inches during January, February, March, April, June, July, August, September, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Goldsboro (10%)

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

Component: Leefield (3%)

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

Map Unit: 97—Eunola, Garcon, and Ousley soils, occasionally flooded

Component: Eunola (45%)

The Eunola component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains, rises on stream terraces on marine terraces on coastal plains. The parent material consists of loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Garcon (25%)

The Garcon component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad flats on low stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy alluvium and/or sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ousley (20%)

The Ousley component makes up 20 percent of the map unit. Slopes are 0 to 2 percent. This component is on broad flats on stream terraces on marine terraces on coastal plains, flood plains on marine terraces on coastal plains. The parent material consists of sandy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is occasionally flooded. It is rarely ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 0 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (8%)

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

Component: Alpin (2%)

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

Map Unit: 98—Rutlege and Plummer soils, depressional

Component: Rutlege, depressional (50%)

The Rutlege, depressional component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer, depressional (38%)

The Plummer, depressional component makes up 38 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Hosford (7%)

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

Component: Leon (5%)

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

Map Unit: 99—Water

Component: Water (100%)

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

Map Unit: 101—Albany-Ocilla-Chipley complex, 0 to 5 percent slopes

Component: Albany (48%)

The Albany component makes up 48 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ocilla (25%)

The Ocilla component makes up 25 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Chipley (16%)

The Chipley component makes up 16 percent of the map unit. Slopes are 0 to 5 percent. This component is on knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 30 inches during January, February, March, April, August, September, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (7%)

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

Component: Foxworth (4%)

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

Map Unit: 106—Plummer-Leon-Sapelo complex

Component: Plummer (49%)

The Plummer component makes up 49 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 8 inches during January, February, March, April, May, June, July, August, September, October, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Leon (19%)

The Leon component makes up 19 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, July, August, September, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Sapelo (18%)

The Sapelo component makes up 18 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, July, August, September, October, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pelham (7%)

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

Component: Clara (7%)

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

Leon County, Florida

Map Unit: 1—Albany loamy sand, 0 to 2 percent slopes

Component: Albany (80%)

The Albany component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on interfluvies, coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Plummer (10%)

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

Component: Troup (10%)

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

Map Unit: 3—Alpin sand, 0 to 5 percent slopes

Component: Alpin (85%)

The Alpin component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian deposits or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Troup (5%)

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

Component: Blanton (5%)

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

Component: Kershaw (3%)

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

Component: Ortega (2%)

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

Map Unit: 4—Arents, 0 to 5 percent slopes

Component: Arents (86%)

The Arents component makes up 86 percent of the map unit. Slopes are 0 to 5 percent. This component is on fills, rises on marine terraces on coastal plains. The parent material consists of altered marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Norfolk (2%)

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

Component: Alpin (2%)

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

Component: Blanton (2%)

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

Component: Troup (2%)

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

Component: Albany (2%)

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

Component: Orangeburg (2%)

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

Component: Lucy (2%)

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

Map Unit: 5—Blanton fine sand, 0 to 5 percent slopes

Component: Blanton (80%)

The Blanton component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 66 inches during January, February, March, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Troup (5%)

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

Component: Chipley (4%)

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

Component: Kershaw (3%)

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

Component: Norfolk (3%)

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

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

Component: Chipley (80%)

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

Component: Albany (10%)

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

Component: Ortega (7%)

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

Component: Pickney (3%)

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

Map Unit: 18—Kershaw sand, 0 to 5 percent slopes

Component: Kershaw (85%)

The Kershaw component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Alpin (5%)

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

Component: Lakeland (5%)

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

Component: Troup (3%)

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

Component: Ortega (2%)

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

Map Unit: 19—Kershaw sand, 5 to 8 percent slopes

Component: Kershaw (80%)

The Kershaw component makes up 80 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges on marine terraces on coastal plains, knolls on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is very high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Alpin (5%)

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

Component: Lakeland (5%)

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

Component: Troup (5%)

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

Component: Ortega (3%)

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

Component: Blanton (2%)

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

Map Unit: 21—Lakeland sand, 0 to 5 percent slopes

Component: Lakeland (80%)

The Lakeland component makes up 80 percent of the map unit. Slopes are 0 to 5 percent. This component is on hills, coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Troup (6%)

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

Component: Foxworth (5%)

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

Component: Bonifay (5%)

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

Component: Albany (2%)

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

Component: Chipley (2%)

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

Map Unit: 25—Lucy fine sand, 5 to 8 percent slopes

Component: Lucy (80%)

The Lucy component makes up 80 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine and fluvial deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Troup (10%)

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

Component: Orangeburg (10%)

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

Map Unit: 28—Meggett soils, frequently flooded

Component: Meggett, frequently flooded (75%)

The Meggett, frequently flooded component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of clayey fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Yonges (5%)

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

Component: Plummer (4%)

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

Component: Pickney (4%)

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

Component: Blanton (3%)

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

Component: Pamlico (3%)

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

Component: Dorovan (3%)

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

Component: Albany (3%)

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

Map Unit: 32—Ocilla fine sand

Component: Ocilla (80%)

The Ocilla component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on rises on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Albany (5%)

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

Component: Chipley (3%)

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

Component: Pelham (3%)

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

Component: Blanton (3%)

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

Component: Lynchburg (3%)

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

Component: Plummer (3%)

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

Map Unit: 37—Ortega sand, 0 to 5 percent slopes

Component: Ortega (75%)

The Ortega component makes up 75 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 51 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Blanton (13%)

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

Component: Kershaw (12%)

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

Map Unit: 38—Pamlico-Dorovan complex

Component: Pamlico (50%)

The Pamlico component makes up 50 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of herbaceous organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, November, December. Organic matter content in the surface horizon is about 40 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dorovan (40%)

The Dorovan component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of organic material over sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 50 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pickney (10%)

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

Map Unit: 39—Pelham fine sand

Component: Pelham, hydric (60%)

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

Component: Pelham, non-hydric (30%)

The Pelham, non-hydric component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer (10%)

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

Map Unit: 40—Pits

Component: Pits (100%)

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

Map Unit: 41—Plummer fine sand

Component: Plummer, hydric (50%)

The Plummer, hydric component makes up 50 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer, non-hydric (40%)

The Plummer, non-hydric component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, June, July, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pelham (10%)

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

Map Unit: 42---Plummer mucky fine sand, depressional

Component: Plummer, depressional (70%)

The Plummer, depressional component makes up 70 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Dorovan (10%)

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

Component: Pamlico (10%)

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

Component: Pelham (10%)

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

Map Unit: 44---Pickney soils, occasionally flooded

Component: Pickney, occasionally flooded (85%)

The Pickney, occasionally flooded component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Pamlico (3%)

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

Component: Leon (3%)

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

Component: Plummer (3%)

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

Component: Talquin (2%)

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

Component: Dorovan (2%)

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

Component: Sapelo (2%)

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

Map Unit: 45—Sapelo fine sand

Component: Sapelo, non-hydric (70%)

The Sapelo, non-hydric component makes up 70 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Sapelo, hydric (15%)

The Sapelo, hydric component makes up 15 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer (10%)

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

Component: Pickney (5%)

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

Map Unit: 47—Talquin fine sand

Component: Talquin, non-hydric (70%)

The Talquin, non-hydric component makes up 70 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Talquin, hydric (15%)

The Talquin, hydric component makes up 15 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Sapelo (3%)

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

Component: Chaires (3%)

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

Component: Pickney (3%)

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

Component: Plummer (3%)

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

Component: Leon (3%)

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

Map Unit: 48—Troup fine sand, 0 to 5 percent slopes

Component: Troup (83%)

The Troup component makes up 83 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges, coastal plains. The parent material consists of unconsolidated sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Norfolk (5%)

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

Component: Lucy (5%)

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

Component: Blanton (5%)

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

Component: Albany (2%)

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

Map Unit: 50—Wagram loamy fine sand, 0 to 5 percent slopes

Component: Wagram (85%)

The Wagram component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Blanton (7%)

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

Component: Norfolk (5%)

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

Component: Wagram (3%)

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

Map Unit: 51—Wagram loamy fine sand, 5 to 8 percent slopes

Component: Wagram (85%)

The Wagram component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Norfolk (10%)

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

Component: Blanton (5%)

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

Map Unit: 52—Yonges fine sandy loam

Component: Yonges (75%)

The Yonges component makes up 75 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lynchburg (13%)

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

Component: Ocilla (12%)

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

Map Unit: 99—Water

Component: Water (100%)

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

Liberty County, Florida

Map Unit: 58—Rutlege, Bibb and Surrency soils, 0 to 2 percent slopes, frequently flooded

Component: Rutlege (35%)

The Rutlege component makes up 35 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, coastal plains. The parent material consists of sandy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during January, February, March, April, May, June, July, August, September. Organic matter content in the surface horizon is about 6 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Bibb (30%)

The Bibb component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, coastal plains. The parent material consists of stratified sandy and loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 5 inches during January, February, March, April, May, June, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Surrency (25%)

The Surrency component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, coastal plains. The parent material consists of Marine, fluvial sediments and fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September. Organic matter content in the surface horizon is about 14 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Wahee (10%)

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

Map Unit: 95—Bibb, Rains, and Garcon Soils, occasionally flooded

Component: Bibb (40%)

The Bibb component makes up 40 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy and loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Garcon (25%)

The Garcon component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains, stream terraces on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 23 inches during January, February, March, July, August, September. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rains (25%)

The Rains component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, July, August, September. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Ochlockonee (10%)

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

Map Unit: 99—Water

Component: Water (100%)

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

Wakulla County, Florida

Map Unit: 14—Ridgewood fine sand, 0 to 5 percent slopes

Component: Ridgewood (85%)

The Ridgewood component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on ridges on marine terraces on coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 33 inches during June, July, August, September, October, November. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Scranton (3%)

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

Component: Moriah (3%)

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

Component: Lutterloh (3%)

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

Component: Ortega (3%)

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

Component: Tooles (3%)

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

Map Unit: 17—Ortega sand, 0 to 5 percent slopes

Component: Ortega (85%)

The Ortega component makes up 85 percent of the map unit. Slopes are 0 to 5 percent. This component is on — Error in Exists On —. The parent material consists of eolian or sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 51 inches during January, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3s. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Lakeland (10%)

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

Component: Leon (5%)

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

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

Component: Leon (80%)

The Leon component makes up 80 percent of the map unit. Slopes are 0 to 2 percent. This component is on flatwoods, marine terraces, coastal plains. The parent material consists of sandy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. Irrigated land capability classification is 4w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Leon, hydric (5%)

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

Component: Hurricane (4%)

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

Component: Pottsburg (4%)

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

Component: Mandarin (3%)

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

Component: Pickney (2%)

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

Component: Rutlege (2%)

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

Map Unit: 32—Plummer-Plummer, wet, fine sands, 0 to 2 percent slopes

Component: Plummer (60%)

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

Component: Plummer, wet (25%)

The Plummer, wet component makes up 25 percent of the map unit. Slopes are 0 to 2 percent. This component is on flats, coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer, depressional (5%)

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

Component: Leon (5%)

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

Component: Scranton (5%)

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

Map Unit: 36---Rutlege sand, frequently flooded

Component: Rutlege, frequently flooded (85%)

The Rutlege, frequently flooded component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of sandy marine deposits and/or fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Plummer (5%)

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

Component: Scranton (5%)

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

Component: Surrency (3%)

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

Component: Croatan (2%)

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

Map Unit: 39—Surrency mucky fine sand

Component: Surrency (84%)

The Surrency component makes up 84 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on marine terraces on coastal plains. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 15 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Rutlege (6%)

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

Component: Plummer (5%)

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

Component: Croatan (5%)

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

Map Unit: 52—Meggett and Croatan soils, frequently flooded

Component: Meggett (55%)

The Meggett component makes up 55 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of clayey fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is high. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Croatan (30%)

The Croatan component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on marine terraces on coastal plains. The parent material consists of organic material over loamy marine or fluvial deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 3 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 43 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Component: Surrency (10%)

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

Component: Rutlege (5%)

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

Map Unit: 99—Water

Component: Water (100%)

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

Data Source Information

Soil Survey Area: Gadsden County, Florida
Survey Area Data: Version 26, Jun 11, 2020

Soil Survey Area: Leon County, Florida
Survey Area Data: Version 18, Jun 11, 2020

Soil Survey Area: Liberty County, Florida
Survey Area Data: Version 25, Jun 11, 2020

Soil Survey Area: Wakulla County, Florida
Survey Area Data: Version 16, Jun 11, 2020

Exhibit K

Department of Environmental Protection
Outstanding Florida Waters



FLORIDA DEPARTMENT OF Environmental Protection

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

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

November 2, 2020

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

RE: Lake Talquin State Forest

Dear Ms. Anderson:

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

According to subsection 62-302.700(9), FAC, three OFWs are within or adjacent to the state forest. These are the Ochlohonee River Special Water OFW, the Bear Creek State Recreation Area, and the Lake Talquin State Recreation Area (see attached maps 1 and 2). Nearby OFWs include the Lake Jackson Aquatic Preserve about one mile northeast, and Ft. San Luis about 3 miles away.

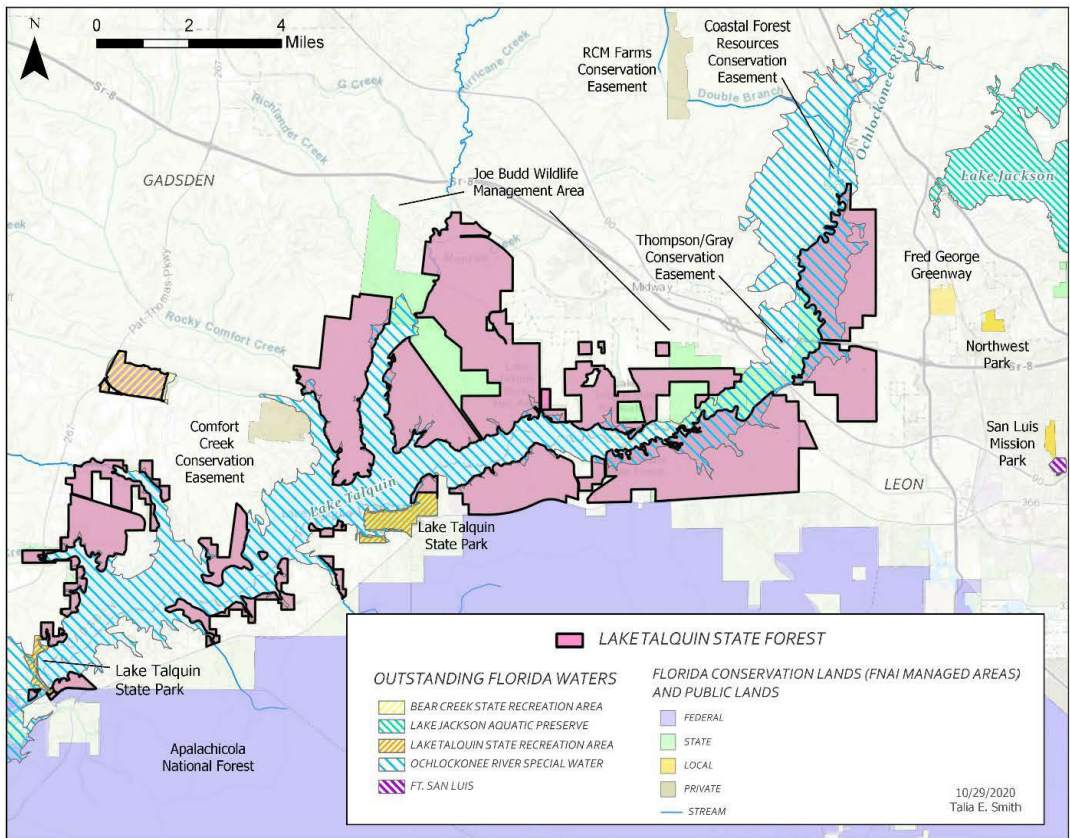
You may also be interested in knowing that, according to the Florida Natural Areas Inventory Managed Areas data layer, there are several other parcels within, adjacent, or nearby that are considered conservation lands at a Federal, State, or Local level. However, these have not been designated as OFWs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

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

Sincerely,

Janet Klemm
Standards Development Section

Lake Talquin State Forest Map 1:



Lake Talquin State Forest Map 2:

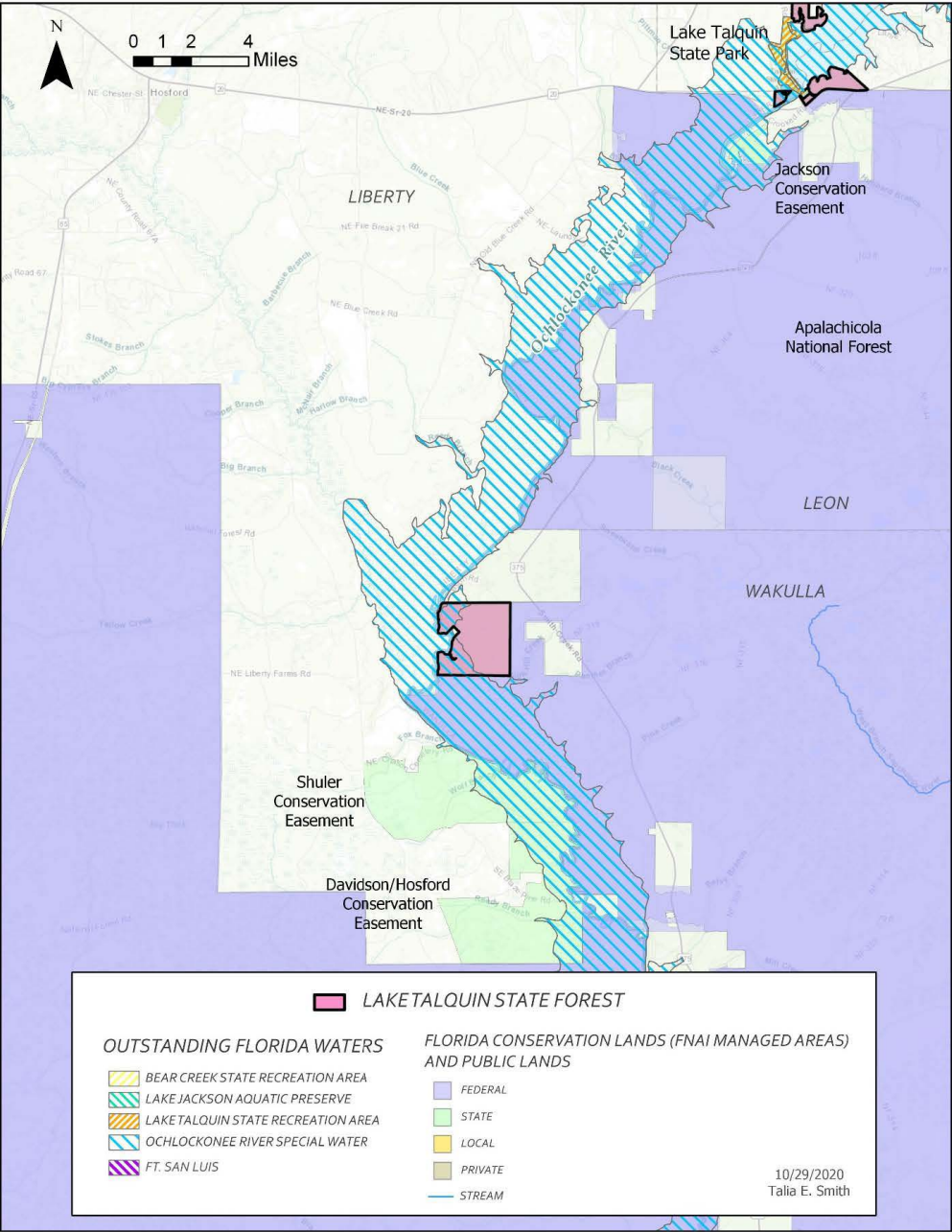
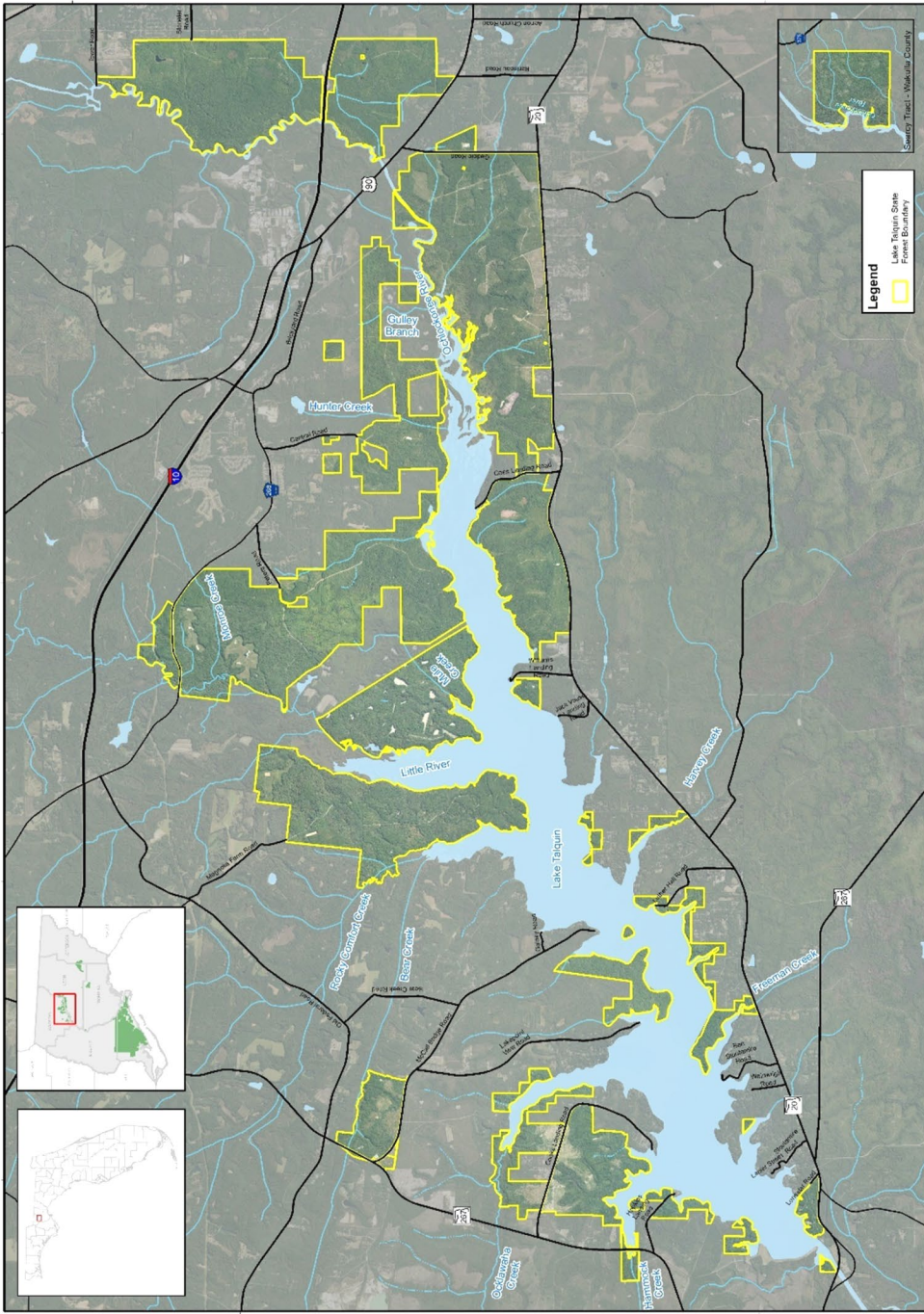


Exhibit L

Water Resources and BMAP Maps



FLORIDA
FOREST SERVICE

Lake Talquin State Forest - Water Resources Map
Map Month/Year: June 2021

Scale: 1 inch = 4 miles / 1:160,000

Legend:
Lake Talquin State Forest Boundary
State of Florida

Inset Map: Shows the location of Lake Talquin State Forest within the state of Florida.

Scale: 0 to 4 Miles / 0 to 4 Kilometers

Map Date: 6/21/2021

Map Author: [Name]

Map Title: Lake Talquin State Forest - Water Resources Map

Map Scale: 1 inch = 4 miles / 1:160,000

Map Projection: NAD 83 / UTM Zone 18N

Map Data: Derived from various sources including aerial photography, topographic maps, and digital data.

Map Disclaimer: This map is for informational purposes only and does not constitute a warranty or guarantee of accuracy. The Florida Forest Service is not responsible for any errors or omissions in this map.

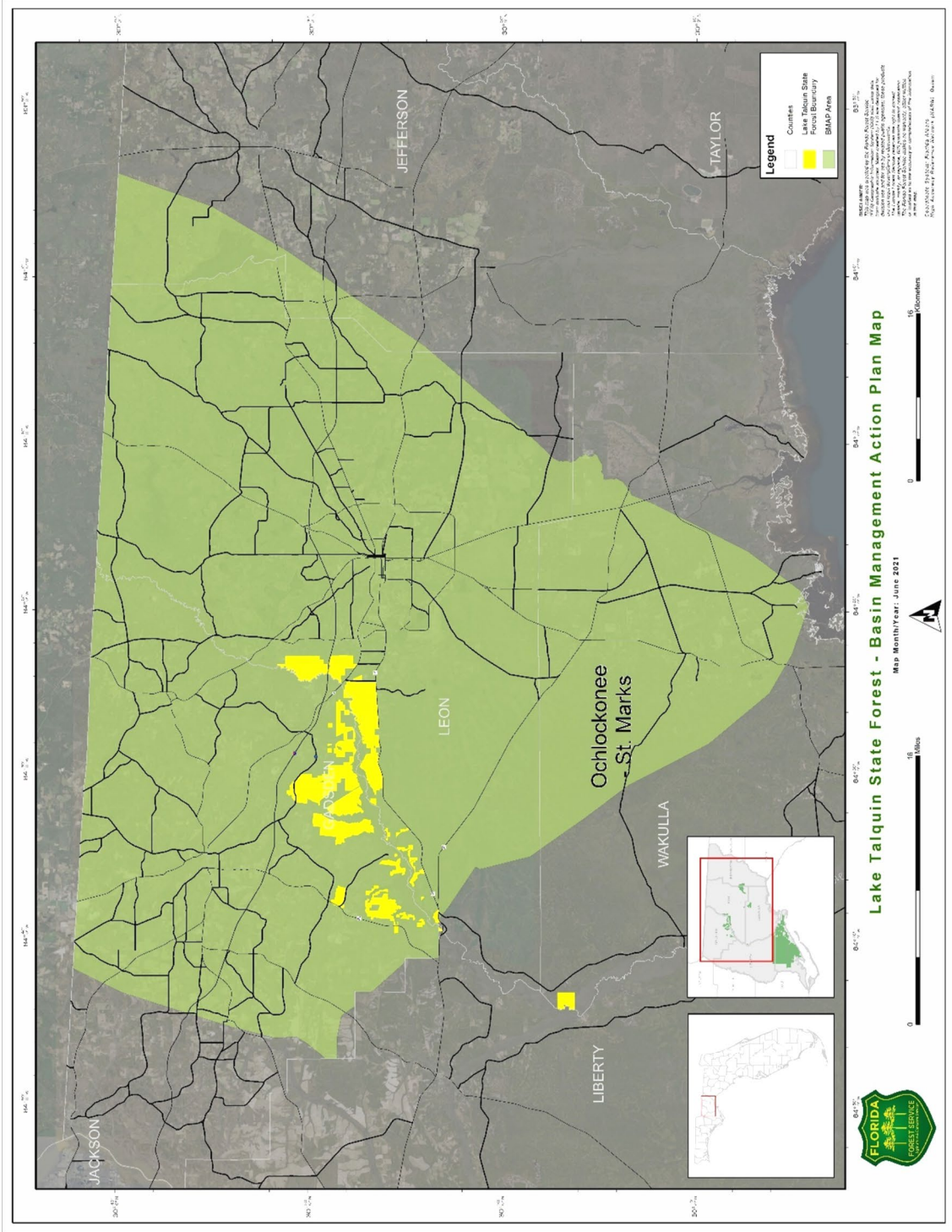


Exhibit M

Florida Natural Areas Inventory Managed Area Tracking Record



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

October 27, 2020

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

Dear Ms. Anderson,

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

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

Project: Lake Talquin State Forest 10-year Land Management Plan
Date Received: 10/21/2020
Location: Gadsden, Leon, Liberty and Wakulla counties

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

Element Occurrences

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

Federally Listed Species

Our data indicate federally listed species are present on or very near this site, specifically Oval Pigtoe (*Pleurobema pyriforme*), Ochlockonee Moccasinshell (*Medionidus simpsonianus*), Shiny-rayed Pocketbook (*Hamiota subangulata*), Eastern Indigo Snake (*Drymarchon couperi*) and Purple Bankclimber (*Elliptioideus sloatianus*) (see enclosed map and tables for details). This statement should not be interpreted as a legal determination of presence or absence of federally listed species on a property.



Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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

Tracking Florida's Biodiversity

*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

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

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

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

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

CLIP

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

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

Managed Areas

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

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

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

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

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

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

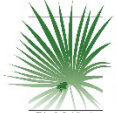
Thank you for your use of FNAI services. If I can be of further assistance, please contact me at (850) 224-8207 or at kbrinegar@fnai.fsu.edu.

Sincerely,

Kerri Brinegar

Kerri Brinegar
GIS / Data Services

Encl



1018 Thomasville Road
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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

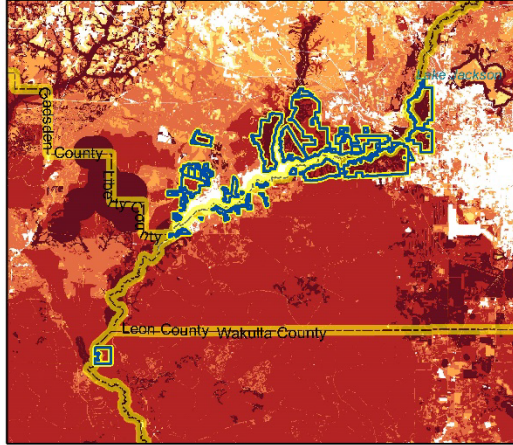
Map should not be interpreted without
accompanying documents.

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.

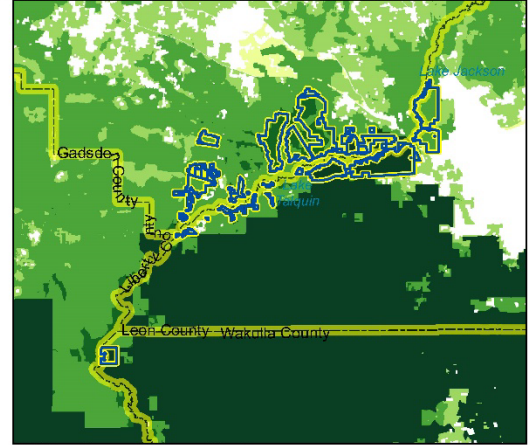
Lake Talquin State Forest

Site boundaries are approximate.

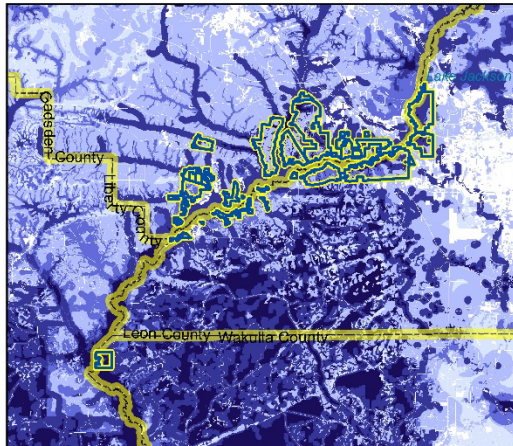
Gadsden, Leon, Liberty & Wakulla Counties



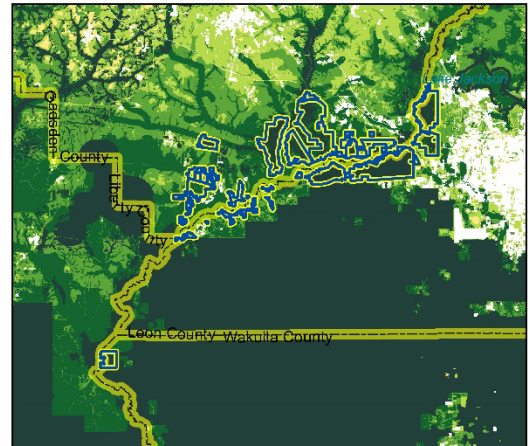
CLIP Biodiversity Resource Priorities



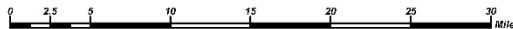
CLIP Landscape Resource Priorities



CLIP Surface Water Resource Priorities



CLIP Aggregated Resource Priorities



Map produced by KAB
10/27/2020

Florida Natural Areas Inventory

Managed Area Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	FT(S/A)
<i>Amblyscirtes aesculapius</i>	Lace-winged Roadside Skipper	G3G4	S3S4	N	N
<i>Apalone spinifera</i>	Spiny Softshell	G5	S3	N	N
<i>Asarum arifolium</i>	little brown jug	G5	S3	N	T
<i>Attenella attenuata</i>	Hirsute Mayfly	G5	S1S2	N	N
<i>Brickellia cordifolia</i>	Flyr's brickell-bush	G3	S2	N	E
<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E
<i>Cordulegaster sayi</i>	Say's Spiketail	G3	S3	N	N
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N
<i>Desmognathus apalachicola</i>	Apalachicola Dusky Salamander	G4	S2S3	N	N
<i>Dryobates villosus</i>	Hairy Woodpecker	G5	S3	N	N
<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST
<i>Egretta thula</i>	Snowy Egret	G5	S3	N	N
<i>Egretta tricolor</i>	Tricolored Heron	G5	S4	N	ST
<i>Erythronium umbilicatum</i>	trout lily	G5	S2	N	E
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
<i>Hemidactylium scutatum</i>	Four-toed Salamander	G5	S2	N	N
<i>Hesperia attalus slossonae</i>	Seminole Skipper	G3G4T3	S3	N	N
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	T
<i>Lilium michauxii</i>	Carolina lily	G4G5	S2	N	E
<i>Lilium superbum</i>	Turk's cap lily	G5	S1	N	E
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3	S3	N	N
<i>Magnolia pyramidata</i>	pyramid magnolia	G4	S3	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Myriophyllum laxum</i>	Piedmont water milfoil	G3	S3	N	N
<i>Najas filifolia</i>	narrowleaf naiad	G3	S2	N	T
<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Polyphylla gracilis</i>	Slender Polyphyllan Scarab Beetle	G2G3	S2	N	N
<i>Pseudemys concinna suwanniensis</i>	Suwannee Cooter	G5T3	S3	N	N
<i>Rhododendron alabamense</i>	Alabama rhododendron	G4	S2	N	E

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



Florida Natural Areas Inventory

Managed Area Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Somatochlora calverti</i>	Calvert's Emerald	G3	S2S3	N	-
<i>Sphodros rufipes</i>	Red-legged Purse-web Spider	G4	S3	N	N
<i>Stewartia malacodendron</i>	silky camellia	G4	S3	N	E
<i>Tachopteryx thoreyi</i>	Gray Petaltail	G4	S3	N	N
<i>Taeniopteryx burksi</i>	Eastern Willowfly	G5	S1S2	N	N
<i>Uvularia floridana</i>	Florida merrybells	G3	S1	N	E

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



Florida Natural Areas Inventory

Managed Area Element Summary

Lake Talquin State Forest



SCIENTIFIC NAME	COMMON NAME	Global rank	State rank	Federal status	State status
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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

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



1018 Thomasville Road
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Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax

Florida Natural Areas Inventory

Managed Area Element Summary

Lake Talquin State Forest



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.
LE = Endangered: species in danger of extinction throughout all or a significant portion of its range.
LE, LT = Species currently listed endangered in a portion of its range but only listed as threatened in other areas
LE, PDL = Species currently listed endangered but has been proposed for delisting.
LE, PT = Species currently listed endangered but has been proposed for listing as threatened.
LE, XN = Species currently listed endangered but tracked population is a non-essential experimental population.
LT = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.
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.

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
F(XN) = Federal listed as an experimental population in Florida
FT(S/A) = Federal Threatened due to similarity of appearance
ST = State population listed as Threatened by the 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. (ST* for *Ursus americanus floridanus* (Florida black bear) indicates that this status does not apply in Baker and Columbia counties and in the Apalachicola National Forest. ST* for *Neovison vison* pop.1 (Southern mink, South Florida population) indicates that this status applies to the Everglades population only.)
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* indicates that a species has SSC status only in selected portions of its range in Florida. 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/>.

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



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



to the U.S. Endangered Species Act

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

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



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(850) 681-9364 Fax
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FNAI ELEMENT OCCURRENCE REPORT on or near Lake Talquin State Forest 10-year Land Management Plan



Map Label	Scientific Name	Common Name	Global State Federal State Observation				Description	EO Comments
			Rank	Status	Listing	Date		
ACIPDES0*16	<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	G3T2T3	S2?	T	FT	2001	Sites have substrates of sand, clay, cobble, limestone and rocks, usually with high bluffs.
AGARLIBA*13	<i>Agarodes libalis</i>	Spring-loving Psiloneuran Caddisfly	G3	S3	N	N	1970-05-13	1970-05-13: No description given (U06RAS01FLUS).
AGKICONT*5	<i>Agkistrodon contortrix</i>	Eastern Copperhead	G5	S2	N	N	1967-06-14	No general description given
ALASWRI0*1	<i>Alasmidonta wrightiana</i>	Ochlockonee Arc-mussel	GH	SH	N	N	1931-11-13	1931-11-13: Blackwater stream (PNDBR06FLUS).
ALLUMSS*149	<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	FT(S/A)	2001-06	Blackwater river with some alluvial and spring contributions.
AMEISERR*17	<i>Ameiurus serracanthus</i>	Spotted Bullhead	G3	S3	N	N	1989-02	MAIN CHANNEL OF BLACKWATER STREAM.



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FNAI ELEMENT OCCURRENCE REPORT on or near Lake Talquin State Forest 10-year Land Management Plan



Map Label		Scientific Name	Common Name	Global State Federal State Observation			EO Comments		
Map Label	Scientific Name	Common Name	Rank	Status	Listing	Date	Description	EO Comments	
AMEISERR*6	<i>Amelurus serracanthus</i>	Spotted Bullhead	G3	S3	N	N	1990-11-08	LONG (CA. 15 MILES), ARTIFICIAL IMPOUNDMENT OF OCHLOCKNEE RIVER AND SEVERAL MILES OF RIVER; MUDDY BOTTOM WITH STUMPS, SOME ROCK OUTCROPS (IMPOUNDMENTS); BULLHEADS OCCUR IN WATERS UP TO 8 FEET DEEP.	>330 SPECIMENS COLLECTED FROM SEVERAL SITES IN EAST HALF OF LAKE BETWEEN OCT 1959-OCT 1964; SEE A68YER01 AND U90FSM01 FOR DATES, SITES, THREE SPECIMENS COLLECTED UPSTREAM OF LAKE. 4 MI. SE OF HAVANA, SPECIES ALSO COLLECTED IN RIVER BELOW DAM. 90-11-08: 500 YRD. DOWNSTREAM FROM COES LANDING, CASSIDY OBSERVED ABOUT 3,000+ SPECIMENS IN DRYING TEMPORARY POOLS THAT WERE CUT OFF WHEN THE LAKE WAS DRAWN DOWN (17') IN 1990. THE FISH WERE GENERALLY 2"-3 1/2" IN LENGTH THOUGH SEVERAL OF THE TRAPPED (AND DYING) FISH WERE 5"-6". CASSIDY ALSO OBSERVED 6-7 SPECIMENS IN BANK FISHERMAN'S BUCKETS AND BEING CAUGHT. THE LARGEST WERE APPROXIMATELY 13" IN LENGTH.
AMPHNIGR*3	<i>Amphinemura nigrifita</i>	A Stonelly	G5	S2	N	N	1979 pre	1979-Pre: No description given (U07RAS01FLUS).	1979-Pre: An unknown number of specimens were collected (U07RAS01FLUS).
AMPHNIGR*4	<i>Amphinemura nigrifita</i>	A Stonelly	G5	S2	N	N	1979 pre	1979-Pre: No description given (U07RAS01FLUS).	1979-Pre: An unknown number of specimens were collected (U07RAS01FLUS).
AMPHPHOL*15	<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S3	N	N	1981-11-17	PEATY-MUCKY FLOODPLAIN OF LARGE CREEK IN SOUTHERN TALLAHASSEE RED HILLS; SPHAGMACEOUS; HARDWOOD HAMMOCK.	MEANS COLLECTIONS INCLUDE 6 SPECIMENS FROM 12" TO 18" SOUPY MUCK (INCL 1 FEMALE W/LG YOLKY FOLLICLES) ON 28 MARCH 1971, 5 MORE ON 11 APRIL 1971; UNSUCCESSFUL DUE TO HIGH WATER ON 23 DECEMBER 1972.
AMPHPHOL*20	<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S3	N	N	1977-02-04	IN MUCKY SITES IN THE FLOODPLAIN OF BEAR CREEK.	COLL. BY D. B. MEANS (#2115) 4 FEB. 1977.
AMPHPHOL*26	<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S3	N	N	2018-02-04	1987-09-26: seepage creek in Ochlocknee River Floodplain (PNDMEA01FLUS).	2 specimens were collected in the 1980's (U87MEA01FLUS) and another observation was made in 2018 (PNDHIL03FLUS).
ANODHEAR*6	<i>Anodonta heardi</i>	Apalachicola Floater	G2	S1S2	N	N	2006-08-05	Ochlocknee River	This occurrence is documented by multiple records extending from 1993-2006.



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APALSPIN*5	<i>Apalone spinifera</i>	Spiny Softshell	G5	S3	N	N	2009-04	The Ochlockonee River is a medium-sized blackwater stream that emanates from headwaters in Georgia and flows downstream to the Gulf of Mexico. The only separation barrier on the river within Florida is the Jackson Bluff Dam at the downstream end of Lake Talquin. The river receives a variety of pollutants, particularly from agriculture, industry, and urban areas in Georgia.	The abundance of observations confirms a viable population in this river. The occurrence is documented by multiple records extending from at least 1947 - 2009.
ASARARIF*48	<i>Asarum arifolium</i>	little brown jug	G5	S3	N	T	2020-03-27	2003: upland hardwood forest (F03FNA08FLUS). 1997-04-05: South- and north-facing ravine slopes with canopy of <i>Carya glabra</i> , <i>Magnolia grandiflora</i> , <i>Acer barbatum</i> , <i>Rhapidophyllum hystrix</i> , <i>Symplocos tinctoria</i> , <i>Arundinaria gigantea</i> in shrub layer. <i>Chasmanthium</i> sp., <i>Panicum bosci</i> , sparse <i>Trillium</i> underwoodia in herb layer.	2003: Observed 1-10 plants occupying less than 1 square meter (F03FNA08FLUS). 1997-04-05: Small population of 3-4 plants with flowers on south-facing slope, another population on north-facing slope, with 10 plants, in flower (PNDCHA05FLUS).
ASARARIF*49	<i>Asarum arifolium</i>	little brown jug	G5	S3	N	T	1997-06-04	High quality slope forest overlooking Little River. Canopy of beech, magnolia, white oak, spruce pine, hickory and basswood.	1997-04-16: Approximately 20 plants with many new leaves - a few with flowers - in an area of about 150 square feet (PNDCHA05FLUS).



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			Rank	Rank	Description	
ASARARIF*51	<i>Asarum arifolium</i>	little brown jug	G5	S3	N T	1999-10-28: APPROX 50 PLANTS OBSERVED, BOTH IMMATURE AND MATURE, IN TWO AREAS—ONE ON NW FACING SLOPE ABOUT 15 FEET UPSLOPE FROM BAYGALL TRANSITION, THE OTHER SOMEWHAT NE ON A WEST FACING SLOPE, AT SLIGHTLY HIGHER CONTOUR, I.E. MID-SLOPE; THE TWO SUB-POPULATIONS ARE SEPARATED BY AN EROSION GULLY; THERE ARE PROBABLY MORE PLANTS PRESENT, BURIED IN THE LEAF LITTER (PNDCHA05FLUS).
					1999-10-28: INTACT, GOOD QUALITY UPLAND HARDWOOD FOREST OR SLOPE FOREST ON MID AND LOWER SLOPE OF RAVINE WITH STREAM FLOWING NORTH INTO LAKE TALQUIN; CANOPY OF FAGUS GRANDIFOLIA, QUERCUS HEMISPHAERICA, Q. ALBA, ACER RUBRUM, MAGNOLIA GRANDIFLORA, PINUS GLABRA, OXYDENDRON ARBOREUM, AND CARYA GLABRA. HERBS INCLUDE CHASMANTHIUM SESSILIFOLIUM, MITCHELLA REPENS, AND SMILAX PUMILA; MID TO UPPER SLOPES HAVE BEEN HEAVILY DISTURBED AND ENCRONCHED BY WEEDY QUERCUS HEMISPHAERICA; RESTORATION SHOULD FOCUS ON CONTROLLING THIS ENCRONCHMENT AND ALLOWING MESIC SPECIES TO MOVE UPSLOPE (PNDCHA05FLUS).	



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Map Label	Scientific Name	Common Name	Rank	Status	Listing	Date
ASAPARIF52	<i>Asarum arifolium</i>	little brown jug	G-5	S3	N	T
						2005-11-25
						2005-11-25: Upland hardwood forest with <i>Fagus grandifolia</i> , <i>Acer rubrum</i> , <i>Ilex opaca</i> , <i>Quercus laurifolia</i> , <i>Ilex coriacea</i> , <i>Osmanthus americana</i> , <i>Hamelis virginiana</i> , <i>Mitchella repens</i> , <i>Smilax pumila</i> , <i>Tipulana discolor</i> (F06FNA14FLUS). 1999-10-31: HIGH QUALITY SLOPE FOREST IN STEEPHEAD; CANOPY INCLUDES WHITE OAK, SOUTHERN MAGNOLIA, BEECH, LAUREL OAK, FLORIDA MAPLE, BASSWOOD, SPRUCE PINE, SOURWOOD, AND PIGNUT HICKORY; SUBCANOPY INCLUDES AMERICAN HOLLY, HOP HORNBEAM, IRONWOOD, WILD OLIVE, AND SILVERBELL; SHRUBS INCLUDE WITCH HAZEL, WILD OLIVE, FRINGE TREE; HERB LAYER INCLUDES CHRISTMAS FERN, SASSAPARILLA VINE, AND CORAL BEAN (PNDCHA05FLUS).
ASAPARIF53	<i>Asarum arifolium</i>	little brown jug	G-5	S3	N	T
						2001-04-17
						2001-04-17: PLANTS ARE GROWING ON A STEEP, NEARLY VERTICAL BANK OVER A CLEAR SEEPAGE STREAM; BANK IS ABOUT 5 FEET HIGH. PLANTS ARE ABOUT 4 FEET ABOVE STREAM; THE SLOPE ABOVE SUPPORTS A FAIRLY MATURE UPLAND HARDWOOD FOREST WITH A CANOPY OF BEECH, LAUREL OAK, AND PIGNUT HICKORY (PNDCHA05FLUS).
						2001-04-17: 50-70 LEAVES COUNTED, NO FLOWERS. GROWING ADJACENT TO A NEEDLE PALM (PNDCHA05FLUS).



Global Rank	State Rank	Federal Status	State Listing	Observation Date
1	1	1	1	1
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4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
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87	87	87	87	

2001-04-26 :ABOUT 30 PLANTS, NO FLOWERS SEEN, MANY LEAVES ARE INSECT-DAMAGED (PNDCHA05FLUS).



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ASARARIF*59	<i>Asarum arifolium</i>	little brown jug	G5	S3	N	T	2008-05-09	2008-05-09: base of a small hill with about a 15-20 foot elevation change. Several swamp chestnut oaks (<i>Quercus michauxii</i>) in the vicinity along with one large yellow poplar (<i>Liriodendron tulipifera</i>). Location is not part of the slope forest along the eastern edge of the Little River but is located well inland from there (F08FRA01FLUS).	2008-05-09: numerous plants in 20 x 20 ft area, many new leaves; no fruits or flowers observed; densest population known to Don Francis (F08FRA01FLUS).
ASARARIF*7	<i>Asarum arifolium</i>	little brown jug	G5	S3	N	T	2000-08-24	2000-08-24: MESIC HARDWOOD FOREST (U00KEP03FLUS). 1989-02-28: BEECH MAGNOIA SLOPE FOREST (PNDJOH01FLUS).	2000: PLANTS NUMEROUS ALONG NATURE TRAIL AND ADJACENT SLOPES (U00KEP03FLUS). 1989-02-28: FORMING SEVERAL COLONIES ON STEEP SLOPES OF RAVINES ALONG NATURE TRAIL AND TO W OF IT IN BEECH MAGNOLIA SLOPE FOREST (PNDJOH01FLUS).
ATTEATTE*5	<i>Affenella attenuata</i>	Hirsute Mayfly	G5	S1S2	N	N	2003-02-18	2003-02-18: No description given (U09DEP01FLUS).	2003-02-18: Staff from the Florida Department of Environmental Protection collected this species (U09DEP01FLUS).
BAETBECK*1	<i>Baetisca becki</i>	A Mayfly	G2G3	S2	N	N	1982	1969: Rocky Comfort Creek is a spring fed stream about 13 miles long and averaging about 33 feet wide with substrate mostly a mixture of sand and clay. Bear Creek is about 10 miles long and averages about 21 feet wide with a substrate of coarse shifting sand (B74PES01FLUS).	1969: 10-20 nymphs per square yard in 1968-1969 and present through 1982 (U82PES02FLUS).



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Map Label

Scientific Name

Common Name

Rank

Status

Listing

Date

Description

EO Comments

BAETROGE*1

Baetisca rogersi

A Mayfly

G4

S3

N

N

1969, as described by Pescador and Berner (1974), small, spring-fed stream tributary to Ochlockonee River (Lake Talquin). Stream flows 13.2 miles and averages 33 feet wide. Substratum mainly a mixture of sand and clay except in upper reaches, where eroding limestones and riffles prevail. Riffles occur patchily [U82PES01FLUS]. Much of substratum lacks vegetation. Dense stands of trees and shrubs line banks and provide organic detritus to stream; species include common elder, sweet spire, black willow, American hornbeam, American beech, spruce pine, sand pine, water oak. At Pescador and Berner's permanent sampling, rubble and gravel substratum integrated with coarse sand in quieter water, current velocity 0.9-1.3 feet per second, max depth 2 feet dropping to low of 0.5 foot in summer, partial sunlight, water temperature 5-25 C during year, pH 6.7-7.1, substratum with some water moss (LEPTODICTYUM) and algae (SPIROGYRA), adjacent marsh zone with PANICUM, SOLIDAGO, SCIRPUS, and PLUCHEA. Some disturbance noted in 1969; sediment on bottom, probably from grading and paving of road that crosses stream, possibly agricultural runoff may enter stream.

1982-1968: Pescador and Berner (1974) conducted a detailed life history study here in 1968-1969, with subsequent observations through at least 1982 by Pescador. They found only one generation per year. Except for last instar, nymphs typically use flowing waters. Nymphs are present from September through June and are nocturnal. Subimagos emerge from March to early July, with an April peak, during morning and early afternoon, but no swarms have been observed. Eggs presumably remain dormant during summer. 1968-1969: 50-100 nymphs per square yard (U82PES01FLUS).



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BAETROGE*2	Baetisca rogersi	A Mayfly	G4	S3	N	N	1982	1982: species present (contact M. Pescador for data). 1967-1969: Pescador and Berner (1974) conducted a detailed life history study here. They found only one generation per year. Except for last instar, nymphs typically use flowing waters. Nymphs are present from September through June and are nocturnal. Subimagos emerge from March to early July, with an April peak, during morning and early afternoon, but no swarms have been observed. Eggs presumably remain dormant during summer.
			G4	S4	N	N	1999-10-31	1989, as described by Pescador and Berner (1974): small, spring-fed stream tributary to Ochlockonee River (Lake Talquin). Stream flows 10.2 miles and averages 21 feet wide. Substratum mainly coarse, shifting sand; no cascades. Substratum lacks vegetation. Dense stands of trees and shrubs line banks and provide organic detritus to stream; species include common elder, sweet spire, black willow, American hornbeam, American beech, spruce pine, sand pine, water oak. At Pescador and Berner's permanent sampling site: current velocity 0.8-1.2 feet per second, max depth 2 feet dropping to low of 0.5 foot in summer, partial sunlight, water temperature 5-25 C during year, substratum bare but for scattered patches of water moss (LEPTODICTYUM) and algae (SPIROGYRA) on concrete bridge supports, adjacent marsh zone with PANICUM, SOLIDAGO, SCIRPUS, and PLUCHEA, station
BAYGALL**6	Baygall		G4	S4	N	N	1999-10-31	1999: HIGH QUALITY BAYGALL WITH HIGH WOODY SPECIES DIVERSITY (PNDCHA05FLUS). 1977: EXTENSIVE STANDS OF ILLICUM FLORIDANUM... WITH PERSEA BORBONIA AND GORDONIA LASIANTHUS (U77FRA01).



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			Rank	Rank	Status	Listing	Date	
BIRDROOK*6	Bird Rookery		G5	SNR	N	N	1993-03-30	MULTI-SPECIES ROOKERY, 5 SPECIES. COLONY REPORTED ACTIVE 1976 BUT NOT CENSUSED (U82NES01); >1000 BIRDS 1977-07. VACANT 1978-04, 101-250 BIRDS (CATTLE EGRETS) 1978-08 (U91RUN01); 85 WOOD STORK NESTS 1984-06, CA. 60 WOOD STORK PAIRS ON NESTS 1988-04-28 (P84ROD01); 11-100 BIRDS 1988-06-16, 11-100 BIRDS (WOOD STORKS) 1989-04-12 (U91RUN01) THREE SPECIES, INCLUDING CA. 60-100 PAIRS OF WOOD STORKS AND 13 PAIRS GREAT EGRETS STARTING TO NEST 1993-03-30 (U93BAK01). GREAT EGRET PRESENT 1988-04-28; 1993-03-30; LITTLE BLUE HERON PRESENT 1977-07, 1988-06-16; WOOD STORK PRESENT 1984-06, 1988-04-28, 1988-06-16, 1989-04-12, 1993-03-30; CATTLE EGRET PRESENT 1977-07 (1000-1500 NESTING PAIRS), 1978-08 (250 NESTING PAIRS); ANHINGA PRESENT 1993-03-30 (CA. 60 ADULTS). UNIDENTIFIED SMALL WHITE WADERS ALSO PRESENT 1988-06-16.
BOTTFORE*5	Bottomland forest		G4	S3	N	N	1999-10-31	OPEN POND (WITH NYMPHAEA AND NUPHAR) SURROUNDED BY CYRILLA, CEPHALANTHUS, ETC.; NESTS IN NYSSA BIFLORA (U93BAK01). ISLAND IN POND-MARSH, WITH GUMS, WATER LILY, EMERGENTS; NESTING SUBSTRATE OF WILLOWS AND BUTTON BUSH OVER WATER (U82NES01); SURROUNDED MOSTLY BY PINE PLANTATIONS; DRAINS SOUTH TO OCHLOCKNEE RIVER.
								2010: Prior to the 2010 natural community reclassification effort this EO had been known as Floodplain forest EO number 5 (see U10FNA01FLUS for updated community descriptions), 1999-10-31: DIVERSE, HIGH QUALITY FLOODPLAIN FOREST (PNDCHA05FLUS). 1977: DIAMOND LEAF OAK, FEW BUT LARGE BALD CYPRESS, MUCH AMERICAN HOLLY, SWEETGUM, TULIP-POPLAR, BLUE BEECH (U77BAK01FLUS).
BRICCOORD*12	Brickellia cordifolia	Flyr's brickell-bush	G3	S2	N	E	2006-05-08	2006-05-08: 5 plants in leaf in 1-10 square meters (F06FNA14FLUS).
								2006-05-08: upland hardwood forest (F06FNA14FLUS).



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Map Label	Scientific Name	Common Name	Rank	Status	Listing	Date	Description	EO	Comments
BRICCORD*7	<i>Brickellia cordifolia</i>	Fly's brickell-bush	G-3	S-2	N	E	2012-04-11	2008-10-15; Edge of upland pine and mixed hardwood forest (U08JEN04FLUS). 1999-10-21; SLOPE FOREST DOMINATED BY QUERCUS HEMISPHAERICA, Q. ALBA, AND Q. VIRGINIANA, MAGNOLIA GRANDIFLORA, LIQUIDAMBAR, CARYA GLABRA, CARYA TOMENTOSA, OSTRYA VIRGINIANA, AND PINUS GLABRA OCCUPYING THE SLOPES OF A STEEPHEAD DRAINING INTO BEAR CREEK. CHIONANTHUS VIRGINUS, HAMAMELIS VIRGINIANA, ILEX OPACA, CALLICARPA AMERICANA, AND VACCINIUM ARBOREUM ARE ALSO IN THE UNDERSTORY. THE LOWER PORTION OF THE DRAIN HAS BEEN IMPOUNDED; THE UPPER PORTION SUPPORTS A BAYGALL DOMINATED BY ILLICIAM FLORIDANUM, WITH A TULIP POPLAR-LOBLOLLY BAY CANOPY. XERIC UPPER SLOPES OF THE STEEPHEAD ARE FIRE SUPPRESSED--A SAND ROAD SEPARATES THE STEEPHEAD FROM THE SURROUNDING XERIC UPLANDS, WHICH SUPPORT A RECOVERING SANDHILL WITH YOUNG LONGLEAF PINE AND GOOD GROUND COVER (PNDCHA08FLUS).	5 plants found in 1999, 4 in 2001, none in 2008 and 1 in 2012.

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Global State Federal State Observation					EO Comments
Map Label	Scientific Name	Common Name	Rank	Status Listing	
BRICCORD*9	<i>Brickellia cordifolia</i>	Fly's brickell-bush	G3	S2 N E	2008-10-15: Found in mixed upland hardwood forest slopes with Chasmanthium, Rhipidophyllum, Callicarpa, Asplenium platyneuron (U08JEN04FLUS), 1999-04-03: East-facing slope above the Little River floodplain. Slopes range from gentle to very steep in small side ravines. Slope forest has a diverse canopy of Fagus grandifolia, Magnolia grandiflora, Quercus michauxii, Q. alba, Q. velutina, Q. shumardii, Litodendron tulipifera, Prunus serotina, Nyssa sylvatica, Fraxinus americana, Pinus glabra, P. taeda, Carya glabra, and C. tomentosa. Subcanopy of Ostrya virginiana (which also gets into canopy occasionally), Acer barbatum, Ilex opaca, Carpinus caroliniana, and Halesia diptera. Shrub layer is nearly impenetrable in some areas due to dense patches of Rhipidophyllum hystrix, and open in other areas with scattered Vaccinium elliptici, Symplocos tinctoria, Callicarpa americana, Crataegus marshallii, Viburnum dentatum, Aesculus pavia, Celtis tenuifolia, and Hamamelis virginiana. There are occasional dense patches of Arundinaria gigantea. The herb layer is dominated by Chasmanthium sessiliflorum in most areas, with Sanguinaria canadensis, Polygonatum biflorum, Ansaema draconium, A. triphyllum, Sanicula smallii, Aristolochia serpentaria, Trillium underwoodii, Dioscorea quaternata, Passiflora lutea, Corallorhiza wisteriana,
					2008-10-15: 9 plants past flowering to past seeding. See Source Observations Tab for more information (U08JEN04FLUS). 2001-08-31: PLANTS WERE OBSERVED AT FOUR LOCATIONS ON THIS EAST FACING SLOPE (SEE BELOW FOR EACH LAT-LONG). FROM NORTH TO SOUTH: (1) 100-150 PLANTS, SOME FLOWERING, SOME WITH CHEWED, NEARLY SKELETONIZED LEAVES; (2) APPROX 6 PLANTS, FLOWERING, ONE PLANT 1.6 METER TALL; (3) APPROX 25 PLANTS, SOME FLOWERING; (4) APPROX 10 PLANTS, FLOWERING (PNDCHA05FLUS). 2001-06-07: APPROX 30 PLANTS, MANY LARGE ENOUGH TO BLOOM, THOUGH NONE IN FLOWER YET, WITH NUMEROUS SMALLER PLANTS (PNDCHA05FLUS).



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			Rank	Rank	Date		
CALLURUS*9	<i>Callophrys ivus</i>	Frosted Elf	G2G3	S2	N	N	2017
						Conopolis amencanum, Hymenocallis occidentalis, Polystichum acrostichoides, Bignonia capreolata, also present. Lower slopes grading into floodplain have Listera australis, Sabal minor, Mitchellia repens, Thelypteris kunthii, Senecio aureus. Large, old stumps indicate logging several decades ago; the dominance of trees with low timber value (beech, magnolia, hophornbeam) suggests that only oaks and other desirable timber species were removed. Fires in the adjacent upland have crept into the upper slopes of this community (PNDCHA05FLUS).	2017: Two adults seen (U18JUE01FLUS). One to ten adults observed in mid-March in 2011, 2012, and 2014.
CALYFLOR*11	<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E	2013-02-28
						2010-03-16: The site occupied by the elfins is sandhill, but much of the surrounding area is overgrown hardwoods or pine plantation. The host plant for this butterfly species is present but is in danger of being crowded out (F11JUE01FLUS). 2010-07-20: High quality upland hardwood forest (U10JEN01FLUS).	Many plants observed at this site on several occasions between 1999 and 2010, 2011, and 2013 and in several areas.



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CALYFLOR*12	<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E	2008-10-15: Point is in pine plantation and was likely mapped incorrectly. Need to resurvey nearby areas (U08JEN04FLUS). 2001-06-07: LARGE PATCH OF ABOUT 150 PLANTS; ALL AGE CLASSES; NO FRUITS OR FLOWERS SEEN; LEAVES ARE THE LARGEST EVER SEEN ON THIS SPECIES (PNDCHA05FLUS).
CALYFLOR*15	<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E	2005-11-21: Upland hardwood forest growing in association with <i>Magnolia grandiflora</i> , <i>Liriodendron tulipifera</i> , <i>Liquidambar styraciflua</i> , <i>Quercus laurifolia</i> , <i>Quercus nigra</i> , <i>Ilex coriacea</i> , <i>Callicarpa americana</i> , <i>Vaccinium corymbosum</i> , and <i>Thelephus</i> sp. (F06FNA14FLUS).
CARETENA*17	<i>Carex terax</i>	sandhill sedge	G5?	S3	N	N	1984-05-11: In dry sandy loam of partially shaded area (Anderson).
CARETENA*18	<i>Carex terax</i>	sandhill sedge	G5?	S3	N	N	1966-04-30: Common; specimens taken [flw, ft] (McDaniel).
CORDSAY*35	<i>Cordulegaster sayi</i>	Say's Spiketail	G3	S3	N	N	2015-03-25: State forest generally protecting stream systems and restoring sandhill uplands. Ravine drains to Lake Talquin, impoundment of Ochlockonee River. Highway runs above ravine heads. National Forest to south.



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CORDSAV136	<i>Cortulegaster sayi</i>	Say's Spiketail	G3	S3	N	N	2015-03-25	State forest generally protecting stream systems and restoring sandhill uplands. Ravine drains to Lake Talquin, impoundment of Ochlockonee River. Highway runs above ravine heads. National Forest to south.	Nymph(s) collected, 2 adults observed, at head of seepage ravine on 1 date in March 2015.
CROTADAMP148	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N	1992	No general description given	1992: One snake (2.5 ft.) observed (U95CAI01).
CROTADAMP283	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N	1999-10-28	1999: SMALL BUT HIGH QUALITY UPLAND HARDWOOD FOREST (.003) OCCURRING ON STEEP SLOPES ABOVE LAKE TALQUIN; RIDGE ABOVE SLOPE IS FIRE-SUPPRESSED AND DOMINATED BY LAUREL OAK AND OTHER WEEDY SPECIES; QUALITY OF UPLAND HARDWOOD FOREST DECLINES SOUTH OF SMALL RAVINE ON WEST SIDE OF PENINSULA (PNDCHA05FLUS).	1999-10-28: 1 INDIVIDUAL SEEN MIDSLOPE, RECENTLY MOLTED (PNDCHA05FLUS).
CROTADAMP369	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N	2012-05-20	no description given	This occurrence is known from a single report in 2015, although the species may be locally common.
CROTADAMP413	<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G3	S3	N	N	2018-05-08	Successional hardwood forest	One 4 5-5 foot long adult commuting across dirt road (F18FNA19FLUS)
CYPRLEED*1	<i>Cypripella leedsii</i>	Bannerfin Shiner	G4	S3	N	N	1989	1989: Alluvial stream (U91LEI01FLUS).	Over 1129 specimens collected by various collectors at 26 localities (see attached sheets) between 1952 and 1989. Frequents main channel of river and larger tributaries; taken over sandy bottom in moderate current; 746 of 1116 specimens are from Leitman et al survey. 17 from floodplain, 721 from main channel, one from backwaters adn seven from oxbows (U91LEI01FLUS).



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DESMAPAL*10			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1971-01-17	SEEPAGE STREAM AND ASSOCIATED SEEPS AND RAVINES. RAVINES VEGETATED WITH BEECH, MAGNOLIA, SPRUCE PINE AND SMILAX.	ONE ADULT MALE COLLECTED FROM SEEPAGE BANK IN TRIBUTARY OF POLK CREEK IN LOWER PORTION OF POLK CREEK WATERSHED. THE SPECIES IS RESTRICTED TO WET MICROHABITATS WITHIN THE EO BOUNDARIES.
DESMAPAL*11			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	2018-02-22	Seepage streams and ravines with severe disturbance from clearcutting and damage from wild hogs	Specimens collected in 1973 (U89MEA01FLUS). In 2018, 2 subadults and 1 larve were observed (F18FNA19FLUS)
DESMAPAL*29			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	2019-01-27	Small seepage stream emanating from degraded former sandhill; second-growth upland hardwood forest on slopes (F92JAC02FLUS)	Individuals found in 1992 (F92JAC02FLUS), and 2018 and 2019 (U19KLE01FLUS).
DESMAPAL*3			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1972-09-10	1972-09-10: creek and associated ravines and seeps (PNDMEA01FLUS).	1972-09-10: Means collected 2 specimens at headwaters of Bear Creek. Species is restricted to wet micro habitats within EO boundaries (PNDMEA01FLUS).
DESMAPAL*30			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1999-10-04	1999-10-04: steephead ravine seepage (PNDPR103FLUS).	1999-10-04: D. Pinnitts observed one larva (ca. 3 inches total length) (PNDPR103FLUS).
DESMAPAL*31			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1999-10-04	1999-10-04: steephead ravine seepage (PNDPR103FLUS).	1999-10-04: D. Pinnitts observed four adults (PNDPR103FLUS).
DESMAPAL*4			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1970-07-06	STREAMS AND ASSOCIATED RAVINES AND SEEPS.	MEANS COLLECTED CA. 60 SPECIMENS FROM A SEEPAGE STREAM IN SECTION 29 OF T1N R4W. SPECIES IS RESTRICTED TO WET MICROHABITATS WITHIN EO BOUNDARIES.
DESMAPAL*5			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	2018-02-21	Steephead ravines	In 1978, specimens were collected from ravines off Richlander Creek, Swamp Creek and Little River (PNDMEA01FLUS). In 2018, 9 were documented (F18FNA19FLUS)
DESMAPAL*7			Desmognathus apalachicolaee			Apalachicola Dusky Salamander			G4	S2S3	N	N	1985-06-09	Seepage streams	Means collected specimens in 1969 and 1985 (U89MEA01FLUS).



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DESNAPAL*9	<i>Desmognathus apalachicola</i>	Apalachicola Dusky Salamander	G4	S2S3	N	N	1973-02-03	STEEPHEAD VEGETATED WITH MIXED SOUTHERN HARDWOODS.	1 ADULT MALE COLLECTED FROM SPRINGHEAD IN MUCKY BANK. THE SPECIES IS RESTRICTED TO WET MICROHABITATS WITHIN THE EO BOUNDARIES.
DRYMCOLUP*153	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT	1974 circa	No general description given	1974-approximately 2 indigos observed by Melvin Kane (U82MOL01FLUS; Moler interview of Kane, 1982-05-26).
DRYMCOLUP*258	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT	1963	No general description given	DOR INDIGO OBSERVED BY D.B. MEANS, 1963 (MOLER INTERVIEW OF D.B. MEANS, 1981-09-24).
DRYMCOLUP*266	<i>Drymarchon couperi</i>	Eastern Indigo Snake	G3	S2?	T	FT	1976-07-07	No general description given	1976-07-07: UF-149816, road-kill indigo snake, K. L. Richmond (A10MEA02FLUS; also Moler interview of D. B. Means, 1981-09-24, U82MOL01FLUS).
DRYBOB0RE*115	<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E,PT	FE	2019	Sandhill and longleaf and slash pine mesic flatwoods	Population has been increasing since 2005, partly aided by artificial inserts and translocation of subadults (PNDCAS04FLUS; U17NES01FLUS). In pre-1983 surveys, ca. 156 colonies and numerous unassociated cavity trees were estimated to be dispersed over appropriate habitat within ca. 105 sections of land (U83UFS01FLUS). From 2004-2019, with augmentation and presumably improved management, the population increased from 110 to 245 active clusters (PNDCAS04FLUS, U19NES01FLUS).
DS*34191	<i>Data Sensitive Element</i>	Data Sensitive	G3G4	S3S4	N	N	2009-03-13	Data Sensitive	Data Sensitive
DS*34228	<i>Data Sensitive Element</i>	Data Sensitive	G5	S2	N	N	2009-04-05	Data Sensitive	Data Sensitive
ECCOXANT*9	<i>Ecoptura xanthenes</i>	A Stonefly	G5	S2	N	N	1979 pre	1979-Pre: No description given (U07RAS01FLUS).	1979-Pre: An unknown number of specimens were collected (U07RAS01FLUS).



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EGRECAER*37	<i>Egretta caerulea</i>	Little Blue Heron	G5	S4	N	ST	1988-06-16 OPEN POND (WITH NYMPHAEA AND NUPHAR) SURROUNDED BY CYRILLA, CEPHALANTHUS, ETC.; NESTS IN NYSSA BIFLORA (U93BAK01). ISLAND IN POND-MARSH, WITH GUMS, WATER LILY, EMERGENTS; NESTING SUBSTRATE OF WILLOWS AND BUTTON BUSH OVER WATER (U82NES01); SURROUNDED MOSTLY BY PINE PLANTATIONS; DRAINS SOUTH TO OCHLOCKNEE RIVER.
ELLUPURP*1	<i>Eliphtio purpurella</i>	Inflated Spike	G2	S2	N	N	2000 pre Long stretch of Ochlocknee River; occurrence extends into Georgia. This river passes through woodlands and agricultural lands but receives pollutants from various sources along its way.
ELLUPURP*2	<i>Eliphtio purpurella</i>	Inflated Spike	G2	S2	N	N	2000 pre Long stretch of Ochlocknee River below Lake Talquin. This river passes principally through forested lands, most of which are within a national forest.
ELLUSLOA*1	<i>Eliphtioideus sloatianus</i>	Purple Bankclimber	G2	S1S2	T	FT	1980-07-29 1980-07-29: river ca. 20 meters wide, 2+ meters deep, moderately low with slight current; water silty with yellow-brown color. Mussels found in firm clay-sand river banks in 2-6 ft. depth. Majority of mussels located about 1 mile upstream (UNDMCC02FLUS).
ELLUSLOA*17	<i>Eliphtioideus sloatianus</i>	Purple Bankclimber	G2	S1S2	T	FT	1993-06-17 1993-06-17: blackwater stream (PNDBR106FLUS).
						EO Comments	
						SPECIES PRESENT 1977-07 AND 1988-06-16. NOT OBSERVED 1978-04, 1978-08, 1989-04-12, AND 1993-03-30. NESTING NEEDS TO BE CONFIRMED.	
						Species is known from multiple collections along the Ochlocknee River, from just above Lake Talquin well into Georgia. Specific Florida collections are recorded in Additional Data; the only specific collection date is in 1983.	
						Species is known from multiple collections along the Ochlocknee River, from just below Lake Talquin downstream at least halfway to Ochlocknee Bay. Specific Florida collections, all pre-dating 2000, are recorded in Additional Topics.	
						1980-07-29: Lee and McCullagh collected 8-10 specimens found in sandy clay substrates of sloping bank, some current (UNDMCC02FLUS). 1933-06-08: T. and G. W. Van Hynning collected UF 1365 (4), UF 2794 (4) and UF 2795 (18) (S33VANSFMFLUS). 1931-11-13: T. and O.C. Van Hynning collected UF 1370 (2), UF 2790 (32) and UF 2793 (1) (S31VANSFMFLUS). 1930-06-08: T. and G. W. Van Hynning collected one; UF 8361 (1) (S30VANSFMFLUS).	
						1993-06-17: Jayne Brim-Box, collector, reports the smallest specimen was 49 mm in length (PNDBR106FLUS).	



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ELLUSLOA*18	<i>Eliploideus slothianus</i>	Purple Bankclimber	G2 S1S2 T FT 1993-06-17	1993-06-17: blackwater river (PNDBR106FLUS).	1993-06-17: 4 individuals captured by Jayne Brim-Box (PNDBR106FLUS).
ERYTUMBI*3	<i>Erythronium umbilicatum</i>	trout lily	G5 S2 N E 1989-02-15	SLOPE FOREST, NEAR SMALL CREEK IN RAVINE; E OF NATURE TRAIL.	LARGE PATCH ON SLOPE.
GEOLFEAT*27	Geological feature		GNR SNR N N 1971 pre	ISOLATED AND RICHLY FOSSILIFEROUS SAND AND MARL DEPOSIT.	OF THICKNESS <16.5 FT. LYING UNCONFORMABLY BELOW BARREN QUATERNARY SAND AND LYING UNCONFORMABLY ON THE HAWTHORN FORMATION - DATED MIOCENE.
GOPHPOLY*107	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3 S3 C ST 1999-10-04	1999-10-04: most tortoises confined to small ruderal area surrounded by uplands characterized by dense water and laurel oaks; few tortoises in the high quality area to the south characterized by thick, lush wiregrass and sparse longleaf pine canopy (ideal tortoise habitat) (PNDRP103FLUS; U99PR103FLUS). 1984: old fields on upland sandy slopes (P84BRO03FLUS)	1999-10-04: north polygon - 14 active burrows observed, all large adults except 2 juveniles; south polygon - 2 active burrows observed, 1 large adult and 1 hatchling (PNDRP103FLUS; U99PR103FLUS). 1984: a few tortoises still present (P84BRO03FLUS). 1977: species present (U77BAK01FLUS).
GOPHPOLY*108	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3 S3 C ST 2005-11-08	2005-11-08: Upland pine and ruderal community with heavy and severe disturbance from forestry operations, fire suppression, roads and ORV trails (F06FNA14FLUS). 1999-09-29: longleaf pine plantations with recovering herb layer (PNDRP103FLUS).	2005-11-08: 27 active burrows and 1 mature tortoise observed (F06FNA14FLUS). 1999-09-29: north polygon - 11 burrows observed (10 large, one smaller); central polygon - 24 burrows observed (20 active, 23 large adults, one juvenile); south polygon - 24 burrows observed (17 active, 21 large adults, 3 smaller (PNDRP103FLUS; F99FNA01FLUS; U99PR103FLUS).
GOPHPOLY*1329	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3 S3 C ST 2006-05-09	2006-05-09: sandhill and sandhill pine plantation as well as upland mixed forest with disturbance from forestry operations and ORV trail (F06FNA14FLUS).	2006-05-09: 4 active burrows observed incidentally during natural community survey (F06FNA14FLUS).
GOPHPOLY*1330	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3 S3 C ST 2006-04-30	2006-04-30: sandhill with severe disturbance from ORV trail and fire suppression (F06FNA14FLUS).	2006-04-30: 1 active burrow observed incidentally during natural community survey (F06FNA14FLUS).



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GOPHPOLY*1331	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2006-05-08: Ruderal community with severe disturbance from forestry operations and clearing (F06FNA14FLUS).	2006-05-08: 1 active burrow recorded incidentally during natural community survey (F06FNA14FLUS).
GOPHPOLY*1332	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2006-04-07: ruderal community with heavy disturbance from roads, houses, and clearing (F06FNA14FLUS).	2006-04-07: 1 active burrow along roadside (F06FNA14FLUS).
GOPHPOLY*1333	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2018-02-22 Along roadsides within upland pine	In 2006, 3 active burrows documented (F06FNA14FLUS). In 2017, 3 burrows documented (F18FNA19FLUS)
GOPHPOLY*1334	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2005-11-02: sandhill and ruderal communities with severe and heavy disturbance from utility corridors, forestry operations, and roads (F06FNA14FLUS).	2 burrows observed in 2018 (F18FNA18FLUS). 12 active burrows and 1 tortoise observed incidentally during natural community survey in 2005 (F06FNA14FLUS, PNDRUS02FLUS).
GOPHPOLY*1589	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	Power line right-of-way (U04ARE04FLUS)	8 tortoise burrows in ca. 350-m stretch of power line right-of-way (U04ARE04FLUS)
GOPHPOLY*243	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1993-03-30: UPLANDS ALONG RAILROAD TRACKS. SOUTH AREA AN OLD IMPROVED PASTURE IN 10-YEAR-OLD SLASH PINE (PNDBAK03).	1993-03-30: "FAIR" POPULATION PER HABITAT. SEVERAL ONE-THIRD+ GROWN TORTOISE BURROWS OBSERVED (PNDBAK03). 1985-04-24: SHELL AND ACTIVE BURROW (PNDDIE01).
GOPHPOLY*402	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	2018 Restoration sandhill with planted pines; moderate disturbance from fire exclusion (F18FNA18FLUS). 2006-04-30: sandhill community with forestry operations disturbance (F06FNA14FLUS)	Species observed in 1985-1986 (U88MAR04FLUS), 90-100+ burrows observed in 1999 (PNDRP03FLUS), 7 active burrows observed in 2006 (F06FNA14FLUS), two burrows observed in 2018 (F18FNA18FLUS).
GOPHPOLY*424	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1989 BACKYARD PLANTED WITH CENTIPEDE GRASS.	1 ADULT TORTOISE LIVES IN BURROW IN BACKYARD.
GOPHPOLY*541	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST	1989-05-01 ROADSIDE BURROW ON HILL AT EDGE OF YOUNG PINES.	1 ADULT FEEDING AND BURROW.

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GOPHPOLY757	<i>Gopherus polyphemus</i>	Gopher Tortoise	G3 S3 C	1992-07-16: VERY DEGRADED FORMER SANDHILL; LONGLEAF REMOVED AND REPLACED BY SLASH PINE, WHICH IS GROWING POORLY; LACK OF FIRE HAS ALLOWED EXTENSIVE INVASION OF SMALL HARDWOODS; REMNANT WIREGRASS CLUMPS; BADLY NEEDS FIRE; TURKEY OAKS SMALL BUT DENSE IN SOME AREAS. A FEW LONGLEAFS IN GRASS STAGE ALONG SAND ROADS.	2006-04-04: 2 active and 1 inactive burrows observed (F08FNA14FLUS); 1992-07-16: JACKSON ET AL. (F92JAC02FL) NOTED NUMEROUS BURROWS AND SAW ONE ADULT ON UPLANDS THROUGHOUT TRACT, 16 JULY 1992. ALTHOUGH SEVERAL BURROWS APPEARED TO HAVE BEEN TAKEN OVER BY MAMMALS (ARMADILLOS, ESP.), SEVERAL CLEARLY WERE STILL USED BY TORTOISES. STILL, POPULATION APPEARED LOW, AND SECOND GROWTH SHRUBBY HARDWOODS WERE SO DENSE ON MUCH OF SITE THAT HABITAT WAS UNSUITABLE FOR TORTOISES (F92JAC02FLUS).
GRAPBARB*18	<i>Graptemys barbouri</i>	Barbour's Map Turtle	G2 S2 N	2000-04-23: alluvial river, probably with some blackwater characteristics (PNDJAC01FLUS)	2004-04-19: Aresco and Gunzburger observed individual ca. 700 straightline m upstream of US-90 (U05ARE01FLUS); 2001-06-28: G. Wallace observed two basking, including one juvenile, one just on each side of US-90 (see U06VAL03FLUS for gps points; also A08ENG01FLUS). 2000-04-23: D. Jackson and M. Aresco observed ca. one dozen individuals basking upstream of the US 90 bridge; these included an adult female as well as males and juveniles (PNDJAC01FLUS, PNDARE01FLUS). 1993-05-26: Caliteux and Nordhaus collected a juvenile (UF 91087) 5.3 km straightline distance below US-27 bridge, and a second juvenile 0.8 km straightline distance below same bridge (A98ENG01FLUS). Bruce Means (PNDMEAO1FLUS) believes this population to be the result of introduction (perhaps by C. Longden in ca. 1970) (PNDJAC01FLUS).



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GRAPBAR*23	<i>Graptomys barbouri</i>	Barbour's Map Turtle	G2	S2	N	ST	2014-05-28 Medium-sized river with blackwater characteristics; subject to amplitude fluctuation with rainfall; can be nearly reduced to isolated pools during severe drought; affected by dam upstream.	Small population first discovered in 1994, possibly from human release. Based on multiple records extending from 1994-2014.
HALILEUC*1119	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003 2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*1269	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003 2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*1277	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003 2005-07-12: Source does not provide a description.	Nest status: Active, 2003, 2002; Unknown status or not assessed, 2001, 2000, 1999;(U03FWC01FLUS)
HALILEUC*439	<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N	2003 1982: along lakeshore by dam (Jackson Bluff area) (PNDBRO03FLUS).	Roosting and foraging. 1982-1984: Pair and immatures regularly seen in area for last 3 yrs during nesting season and beyond (PNDBRO02FLUS); nearby nest active from 1997-2003 (FWC Nest # LI002) located to southwest ca. 1.6 miles (U03FWC01FLUS).
HAMSUBA* (X)1	<i>Hamicta subangulata</i>	Shiny-rayed Pocketbook	G2	S1S2	E	FE	1957-11-15: river ca. 20 meters wide, 2+ meters deep, moderately low with slight current; water silty with yellow-brown color. Mussels found in firm clay-sand river banks in 2-6 ft. deep. Majority of mussels about 1 mile upstream (UNDMCC02FLUS).	1980-07-09: Lee and McCullagh failed to find species. Lee and McCullagh have conducted four surveys between 1974 and 1980 at site without finding any specimens. 1957-11-15: (3) individuals collected. Collection field number is MFM 7633. 1947-01-28: Walker collected six individuals. 1933-06-08: T. and G.W. Van Hyning collected 22, UF 3281 (22) (S33VANSMLFLUS). 1931-11-13: T. and O.C. Van Hyning collected four, UF 3280 (4) (S31VANSMLFLUS). 1930-06: O.C. and G.W. Van Hyning collected 34, UF 3283 (34) (S30VANSMLFLUS). No date: T. and G.W. Van Hyning collected one, UF 8434 (1).
HEMSCUT*10	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G5	S2	N	N	2006-02-21 Shallow ravine along creek tributary to Ochlockonee River.	Known from one observation of nesting female.



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HEMSCUT*11	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	2018-01-07
							Within state forest in hardwood ravines on south side of Lake Talquin, impoundment of Ochlockonee River. 2018: salamanders nesting in moss on edge of ephemeral pools/mucky seeps (U18KLE01FLUS).
HEMSCUT*12	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	2018-02-04
							Floodplain forest with Sphagnum moss covering the ground.
HEMSCUT*14	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	2018-03-20
							State forest. Upland hardwood forest. See source feature for vegetation list.
HEMSCUT*2	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	1969-10-25
							1969-10-25: floodplain hillside with mixed hardwoods and pine. Soil dry though previous rains had deposited sediment onto floodplain (PNDMEA01FLUS).
HEMSCUT*8	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	2006-02-21
							2005-03-08: pool within a mixed hardwood/pine forest. 2005-03-07: above water in mixed pine/hardwood forest (PNDHER04FLUS, A07HER01FLUS).
HEMSCUT*9	<i>Hemidactylium scutatum</i>	Four-toed Salamander	G-5	S-2	N	N	2006-02-21
							2005-03-08: shallow pool in floodplain of second-order stream in steephead ravine dominated by hardwoods (U05HER02FLUS, A07HER01FLUS, U17HER01FLUS).
HESPSLOS*17	<i>Hesperia attalus slossonae</i>	Seminole Skipper	G-3G4T-3	S-3	N	N	2013-09-22
							2013-09-22 and 2005-09-05: The skippers were seen in a sandhill area with regenerating longleaf pines, turkey oaks, wiregrass, and scattered yuccas (PNDJUE02FLUS).



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KALMAT63	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	T	2006-04-07	2006-04-07: floodplain forest and upland mixed forest communities growing with <i>Quercus laurifolia</i> , <i>Carya glabra</i> , <i>Pinus glauca</i> , <i>Osmorhiza americana</i> , <i>Vaccinium stamineum</i> , <i>Lynxia fruticosa</i> , <i>Cliftonia tinctoria</i> , <i>Myrica cerifera</i> , <i>Vitis rotundifolia</i> , and <i>Mitchella repens</i> (F06FNA14FLUS). 2004-08-26: Plants in upper riparian zone of Harvey Creek. Private land surrounds plants to the south (PNDJEN04FLUS).	2006-04-07: 37-87 plants observed in flower/bud scattered in forest (F06FNA14FLUS). 2004-05-01: Very large specimens of <i>Kalmia latifolia</i> are here, some blooming profusely. Plants are growing on the edge of the creek, in the hundred year flood zone (PNDJEN04FLUS).
KALMAT71	<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	T	2005-11-25	2005-11-25: Upland hardwood forest community growing in association with <i>Fagus grandifolia</i> , <i>Quercus alba</i> , <i>Magnolia virginiana</i> , <i>Pinus glauca</i> , <i>Ostrya virginiana</i> , <i>Vaccinium arboreum</i> , <i>Rhododendron</i> sp., <i>Ilex opaca</i> , <i>Vaccinium stamineum</i> , <i>Smilax pumila</i> , <i>Mitchella repens</i> (F06FNA14FLUS).	2005-11-25: at least 17 plants observed in leaf. Possibly planted (F06FNA14FLUS).
LILIMCH11	<i>Lilium michauxii</i>	Carolina lily	G4G5	S2	N	E	2003	2003: light logging disturbance (F03FNA08FLUS).	2003: Observed 1-10 plants in less than 1 square meter (F03FNA08FLUS).
LILIMCH9	<i>Lilium michauxii</i>	Carolina lily	G4G5	S2	N	E	1997-04-10	Rich slope forest on northwest-facing slope above Little River; white oak, sweet gum canopy and giant cane, Christmas fern in herb layer.	1997-04-10: On northwest-facing slope, lower to mid-slope, 8 plants (PNDCHA05FLUS). 1997-04-05: On steepest portion of slope, with north aspect, six plants, two large enough to flower this June (PNDCHA05FLUS).



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LILSUPE*5	<i>Lilium superbum</i>	Turk's cap lily	G5	S1	2009-05-12: Lower slope of hardwood forest, some treatment for Ardisia (U08JEN01FLUS). 2001-03-26: LOWER SLOPE OF A MATURE, GOOD QUALITY SLOPE FOREST GRADING INTO THE EDGE OF A STEAMSIDE BAYGALL; SLOPE IS SEEPY TO NEARLY MIDSLOPE; CANOPY OF MAGNOLIA GRANDIFLORA, LIRIODENDRON TULIPIFERA, LIQUIDAMBAR STYRACIFLUA; SHRUB LAYER OF PERSEA, PALUSTRIS, ILEX CORIACEA, FAGUS GRANDIFOLIA SEEDLINGS AND SAPLINGS, LEUCOTHOE SP.; HERBS INCLUDE OSMUNDA CINNAMOMEA, ATHYRIUM FILIX-FEMINA, WOODWARDIA AREOLATA, ARISAEMA TRIPHYLLUM (PNDCHA05FLUS).
LOBEAPAL*10	<i>Lobelia apalachicolensis</i>		G2	SNR	2009-05-12: No plants found, kind of early (U09JEN01FLUS). 2001-03-26: APPROX 20 SINGLE-LEAVED PLANTS, AND 5 PLANTS WITH A TERMINAL WHORL OF 3-4 LEAVES (PNDCHA05FLUS).
MACRTEM*15	<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3	S3	Flowering specimen collected. Alligator Snapping Turtles have been recorded from the Ochlockonee River, Lake Talquin and Lake Iamonia since at least 1972. Ochlockonee River is a dark, often murky river with many logs and snags, adjacent banks presumably used for nesting. Lake Talquin is an impoundment of middle Ochlockonee River. Lake Iamonia is a large shallow lake with abundant vegetation; it receives overflow from Ochlockonee River during floods.



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MACRTEM24			Macrochelys temminckii			Alligator Snapping Turtle			G3			S3			N		2014-10-06		Ochlocknee River is a blackwater river with some alluvial input. Lower reaches are subject to tidal influence (likewise for Sopchoppy River) with brackish waters, flows into estuary and bay. Much of occurrence is bordered by managed areas, especially Apalachicola National Forest, but also St. Marks National Wildlife Refuge. Telogia Creek is a relatively broad creek tributary to the Ochlocknee River (but perhaps as a result of stream capture from the Apalachicola River system: PNDMEA01FLUS).		Possibly a fairly good population. Known from multiple records (from at least 1950-2014) and sites spanning much of the lower Ochlocknee River (OR), Telogia Creek, and Sopchoppy River (SR) system.				
MAGNASHE94			Magnolia ashei			Ashe's magnolia			G3			S2			N			E		2000-08-24		2000-08-24: MESIC HARDWOOD FOREST (U00KEP03FLUS).		2000: SEVERAL PLANTS ALONG NATURE TRAIL (U00KEP03FLUS).	



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MAGNPYRA*48	<i>Magnolia pyramidalata</i>	pyramid magnolia	G4	S3	N
				E	
					2001-05-21
					1999-10-31: HIGH QUALITY SLOPE FOREST IN STEEPHEAD; CANOPY INCLUDES WHITE OAK, SOUTHERN MAGNOLIA, BEECH, LAUREL OAK, FLORIDA MAPLE, BASSWOOD, SPRUCE PINE, SOURWOOD, AND PIGNUT HICKORY; SUBCANOPY INCLUDES AMERICAN HOLLY, HOP HORNBEAM, IRONWOOD, WILD OLIVE, AND SILVERBELL; SHRUBS INCLUDE WITCH HAZEL, WILD OLIVE, FRINGE TREE; HERB LAYER INCLUDES CHRISTMAS FERN, SARSAPARILLA VINE, AND CORAL BEAN (PNDCHA05FLUS).
					2005-11-25: 1 dormant tree more than 25ft tall at northern location. At least 1 tree observed dormant in vicinity of southern point, but probably more present when in leaf (F06FNA14FLUS). 2001-05-21: ONE YOUNG TREE AND SEVERAL SEEDLINGS SEEN ON THE EAST SIDE OF THE IMPOUNDMENT, NEAR THE BLUE TRAIL (PNDCHA05FLUS). 1999-10-21: SEVERAL TREES, SAPLINGS, AND SEEDLINGS SEEN ON BOTH EAST AND WEST FACING SLOPES OF STEEPHEAD; ABOUT HALF WAY DOWNSLOPE, NEAR THE FENCES ALONG THE FLORIDA TRAIL (PNDCHA05FLUS).

repens, Thelypteris kunthii, Senecio aureus. Large, old stumps indicate logging several decades ago; the dominance of trees with low timber value (beech, magnolia, hophornbeam) suggests that only oaks and other desirable timber species were removed. Fires in the adjacent upland have crept into the upper slopes of this community (PNDCHA05FLUS).



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MAGNPYRA*50	<i>Magnolia pyramidata</i>	pyramid magnolia	G4 S3 N E 2001-04-17	2001-04-17: MATURE, SECOND GROWTH UPLAND HARDWOOD FOREST; CANOPY OF CARYA GLABRA, MAGNOLIA GRANDIFLORA, LIQUIDAMBAR STYRACIFLUA, QUERCUS HEMISPHERICA, Q. NIGRA, Q. ALBA, SUBCANOPY OF OSTRYA VIRGINIANA, ILEX OPACA, SHRUB AND HERB LAYER INCLUDES MYRICA CERIFERA, SYMPLOCOS TINCTORIA, PERSEA BORBONIA, HAMAMELIS VIRGINIANA, VITIS ROTUNDIFOLIA, TRILLIUM UNDERWOODII, SMILAX PUMILA, MITCHELLIA REPENS, PANICUM SP. (PNDCHA05FLUS).
MAGNPYRA*52	<i>Magnolia pyramidata</i>	pyramid magnolia	G4 S3 N E 2000-08-24	2000-08-24: MESIC HARDWOOD FOREST (U00KEP03FLUS). 2000: PLANTS ABUNDANT ALONG NATURE TRAIL (U00KEP03FLUS).
MAGNPYRA*54	<i>Magnolia pyramidata</i>	pyramid magnolia	G4 S3 N E 2008-10-15	2008-10-15: Point in upland pine habitat, near upland mixed hardwood forest (U08JEN04FLUS). 2001-06-07: TREES IN A SMALL PIECE OF INTACT SLOPE FOREST ABOUT 50 FEET UPSLOPE FROM OCHLOCKNEE RIVER FLOODPLAIN (PNDCHA05FLUS). 2008-10-15: No plants found (U08JEN04FLUS). 2001-06-18: ELEVEN TREES, MOST YOUNGER MATURE TO SAPLING SIZE (PNDCHA05FLUS).



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IMAGNPYRA*55	<i>Magnolia pyramidalis</i>	pyramid magnolia	G4	S3	2001-03-26: STEEP SLOPE OVERLOOKING LAKE TALQUIN; MORE MESIC AREAS WITH A CANOPY OF QUERCUS ALBA, FAGUS GRANDIFOLIA, QUERCUS MUhlenbergiiMICHauxii (?), TILIA AMERICANA, MAGNOLIA GRANDIFLORA; OTHER SPECIES PRESENT: HYDRANGEA QUERCIFOLIA, Ostrya virginiana, CRATAEGUS MARSHALLII, HALESIA DIPTERA, EUONYMUS AMERICANA, ASIMINA PARVIFLORA, DIOSCOREA QUATERNATA, AND POLYSTICHUM ACROSTICHOIDES (PNDCHA05FLUS).
MATEFLOR*15	<i>Matelea floridiana</i>	Florida spiny-pod	G2	S2	2010-05-12: In sandy loam of deep shade on upper slopes of steephead (S10ANDFSFLUS). 2001-05-04: UPPER SLOPE OF A STEEPHEAD, UNDER A CANOPY OF CARYA TOMENTOSA, PINUS GLABRA, QUERCUS HEMISPHERICA, OTHER ASSOCIATES: ILEX, OPACA, SMILAX PUMILA, BIGNONIA CAPREOLATA, HAMAMELUS VIRGINIANA (PNDCHA05FLUS).
MATEFLOR*46	<i>Matelea floridiana</i>	Florida spiny-pod	G2	S2	2014-10-08
MEDISIMP* (X)1	<i>Medionidus simpsonianus</i>	Ochlockonee Moccasinshell	G1	S1	1933-06-08: river moderately low, slight current, silty (yellow-brown water), mussels in moderately firm clay-sand river banks at 2-6 ft. depth (UNDMCC02FLUS). 1980-07-29: not found (McCullagh Station 285) on canoe trip of ca. 0.1 miles upstream. Several lots housed at Florida Museum of Natural History (UF). 1933-06-08: T. and G. W. Van Hyning collected UF 4162 (21). 1931-11-13: T. and O. C. Van Hyning collected UF 4158 (24), UF 8399 (1). 1920-06-08: O. C. and G. W. Van Hyning UF 4164 (10) AND UF 8402 (2) (UNDMCC02FLUS).



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MEGANERV*1	<i>Megalorhynchus nervosa</i>	Washboard	G5	S3	N	N	1988-07-29	1988-07-29	1988-07-29: river ca. 20 meters wide, 2+ meters deep, moderately low with slight current, water silty with yellow-brown color. Mussels found in firm clay-sand river banks in 2-6 ft. depth. Majority of mussels located about 1 mile upstream (UNDMCC02FLUS).	1988-07-29: Lee and McCullagh collected about 10 specimens on, up to 150 mm long, in firm sandy-clay substrate in 3-6 ft. of water, mostly on sloping banks in some current. Found with toes (palpation). Site mentioned in A56CLE01FLUS. Numerous lots housed at UF (Gainesville) but not included here.
MEGANERV*25	<i>Megalorhynchus nervosa</i>	Washboard	G5	S3	N	N	1993-06-17	1993-06-17	1993-06-17: Jayne Brim-Box collected 4 individuals (PNDBR106FLUS).	
MESIFLAT*153	Mesic flatwoods		G4	S4	N	N	2010_01-06	2010_01-06	2010_01-06: excellent condition, good fire history (PNDKIN02FLUS). 1997-06-01: High quality mesic flatwoods with mature and older mature longleaf pine in the canopy. The shrub layer is exceptionally diverse, especially with ericad species, although the dominant species are typical of flatwoods: saw palmetto, low blueberry, gallberry. Wiregrass is scattered and patchy. Herb diversity is high, including <i>Baptisia simplicifolia</i> , Toothache grass, Florida dropseed, and broomsedge are common grasses. Yellow trumpet pitcherplant occurs in wet drains through the flatwoods at MF#1. Deer tongue, blazing star, and several aster species will flower later in the season. Numerous legume species are flowering now at MF#3 due to recent fire, including rabbit bells (<i>Crotalaria rotundifolia</i>), rattlebox (<i>Crotalaria purshii</i>), milk peas (<i>Galactia volubilis</i> , <i>G. erecta</i>) and <i>Tephrosia</i> (<i>Tephrosia spicata</i>) (PNDCHEA05FLUS). (Note: EODATA was taken at MF#2, not the recently burned area of MF#3.)	2010_01-06: excellent condition, good fire history (PNDKIN02FLUS). 1997-06-01: High quality mesic flatwoods with mature and older mature longleaf pine in the canopy. The shrub layer is exceptionally diverse, especially with ericad species, although the dominant species are typical of flatwoods: saw palmetto, low blueberry, gallberry. Wiregrass is scattered and patchy. Herb diversity is high, including <i>Baptisia simplicifolia</i> , Toothache grass, Florida dropseed, and broomsedge are common grasses. Yellow trumpet pitcherplant occurs in wet drains through the flatwoods at MF#1. Deer tongue, blazing star, and several aster species will flower later in the season. Numerous legume species are flowering now at MF#3 due to recent fire, including rabbit bells (<i>Crotalaria rotundifolia</i>), rattlebox (<i>Crotalaria purshii</i>), milk peas (<i>Galactia volubilis</i> , <i>G. erecta</i>) and <i>Tephrosia</i> (<i>Tephrosia spicata</i>) (PNDCHEA05FLUS). (Note: EODATA was taken at MF#2, not the recently burned area of MF#3.)



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MCRNOT15	<i>Micropterus notius</i>	Suwannee Bass	G3	S3	N	N	1989	ALLUVIAL STREAM, RIVERINE, WITH SERIES OF SHOALS AND POOLS. STATE MUSEUM HAS SEVERAL SPECIMENS; 2 SPECIMENS COLLECTED ON 28 NOV 1961 (UF-059430); UNDETERMINED NUMBER OF SPECIMENS COLLECTED (UF 063281); 1 SPECIMEN COLLECTED ON 17 AUG -1968 (UF-069198); LEITMAN ET AL CAUGHT A TOTAL OF 19 SPECIMENS (1 IN FLOODPLAIN (3/88), 15 IN MAIN CHANNEL AND 3 IN OXBOWS, DURING SURVEY FROM 1987-1989 R. O. CASSIDY HAS CAUGHT THIS SPECIES ON THIS STRETCH OF RIVER. MUSEUM SPECIMEN: COLLECTED BY W.L. JENNINGS, 1957-02-01, #01753 FSM.
MUSTOLIV*2	<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N	1957-02-01	No general description given
MUSTOLIV*36	<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N	1990-12-27	1990-12-27: J. Schuford, observation. Observed in roadside ditch approx 1500 hrs. Schuford caught by chasing weasel and throwing hat over it. Given to D. Runde 12-28-90 and to J.A. Hovis 12-31-90. Retained by Hovis to test trapping techniques. Released at Joe Budd VMA on 7 Mar 91. Pine plantation with oaks. Probably upland mixed forest originally.
MICOTAMER*267	<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT	2010	Cypress swamp abutting railroad; residential development just across railroad to the east (NeSmith). Species present in each of 5 years checked from 2004 to 2010 (with high of 240 nests in 2007 and 160 in 2010). Spreadsheet in U11TSA01FLUS gives number of nests by year.
MICOTAMER*38	<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT	2010	Ochlocknee River colony: open pond (with Nymphaea and Nuphar) surrounded by Cyrilla, Cephalanthus, etc.; nests in Nyssa biflora (U93BAK01FLUS). Island in pond-marsh, with gums, water lily, emergents; nesting substrate of willows and button bush over water (U82NES01FLUS); surrounded mostly by pine plantations; drains south to Ochlocknee River. Ochlocknee River is a long-lived colony; species present intermittently for 13 years, from 1984 to 2010 with a high of 300 nests in 1999 and only 3 in 2010. Spreadsheet in U11TSA01FLUS gives number of nests by year.



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MYRILAXU*20	<i>Myriophyllum laxum</i>	Piedmont water milfoil	G3 S3 N N N 1999-10-31 1999: IMPOUNDMENT IN NARROW STEEPHEAD WITH HIGH QUALITY SLOPE FOREST (PNDCHA05FLUS).	1999: LARGE SUBMERSED MAT OF PLANTS, NO FRUITS SEEN (PNDCHA05FLUS).
NAJAFIL*28	<i>Najas filifolia</i>	narowleaf naiad	G3 S2 N N T 2004 Lacustrine	Species present
NAJAFIL*6	<i>Najas filifolia</i>	narowleaf naiad	G3 S2 N N T 1999 Lake Jackson: in ca. 1 m of water with a sandy substrate (A85HAY01FLUS)	Voucher specimens collected in 1972, 1973, and 1984 (A85HAY01FLUS). Another specimen collected in 1974 (SNDFSU01FLUS). Species also documented in 1983, 1984, 1994, 1998, and 1999 (U18DEP01FLUS).
NYCTVIOL*56	<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron	G5 S3 N N N 2000-04-23 Alluvial river, probably with some blackwater characteristics.	2000-04-23: D. Jackson and M. Aresco observed two foraging individuals that appeared to be resident or at least regular foragers at the site. These were seen ca. 1-3 miles upstream of I-10 crossing.
PANDHAL*122	<i>Pandion haliaetus</i>	Osprey	G5 S3S4 N N N 2000-04-23 Alluvial river, probably with some blackwater characteristics.	2000-04-23: D. Jackson and M. Aresco observed several individuals foraging and perching, as well as one on nest, within one mile downstream of US-90 bridge; nest was on west side of channel in very low (ca. 2 m above low water level) cypress.
PHYLQLEW*3	<i>Phyllophaga clemens</i>	Clemens' June Beetle	G2 S1 N N N 1987-06-22 1987-06-22: No description given (B89WOO01FLUS).	1987-06-22: P. E. Shelley collected one specimen by using a blacklight (B89WOO01FLUS). 1970-06-14: Two specimens were collected at lights by G. H. Nelson (B89WOO01FLUS).
PITUMELA*152	<i>Pituophis melanoleucus</i>	Pine Snake	G4 S3 N N ST 1990-08-26 PLANTED PINE.	1 DOR INDIVIDUAL, CA 4 FT.
PITUMELA*203	<i>Pituophis melanoleucus</i>	Pine Snake	G4 S3 N N ST 1999-10-06 1999-10-06: longleaf pine plantations with recovering herb layer (PNDPRI03FLUS).	1999-10-06: Printiss trapped adult, ca. 4 feet total length, in tunnel trap placed at mouth of tortoise burrow (PNDPRI03FLUS).
PITUMELA*215	<i>Pituophis melanoleucus</i>	Pine Snake	G4 S3 N N ST 2006-07-13 No general description given	2006-07-14: road-killed adult pine snake found on SR-20 near Coe's Landing Road (U06WAL01FLUS).
PITUMELA*31	<i>Pituophis melanoleucus</i>	Pine Snake	G4 S3 N N ST 1989-05-12 OPEN FIELD (CA. 400 AC) WITH MOSTLY GRASSES AND SMALL SHRUBS. PLANTED PINES 2-3 FT HIGH.	1 INDIVIDUAL COLLECTED AND RELEASED.



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Map Label	Scientific Name	Common Name	Global State Federal State Observation			EO Comments
			Rank	Rank	Date	
PITYFLEX*23	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	1985-11	1985-11: NONE GIVEN.
PITYFLEX*24	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2005-08-05	2005-08-05: three plants seen at point on dry roadside along edge of pine plantation (remnant sandhill), plants in bud (PNDGUL01FLUS). 1985-11: NONE GIVEN (U85GHO01FLUS).
PITYFLEX*25	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2005-08-05	2005-08-05: 2 plants seen, in leaf, on upper roadside just beyond plowed line (PNDGUL01FLUS). 1985-11: NONE GIVEN (U85GHO01FLUS).
PITYFLEX*26	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2005-08-05	2005-08-05: dry roadside, halfway between road and edge of old flatwoods (PNDGUL01FLUS).
PITYFLEX*27	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	1985-11	2005-08-05: no plants seen in a brief survey, habitat not suitable; roadside edge has been plowed; north side of road is young pine plantation (PNDGUL01FLUS). 1985-11: NONE GIVEN (U85GHO01FLUS).
PITYFLEX*28	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2005-08-05	2005-08-05: 7 plants seen, in leaf, located on edge of and just into regenerating sandhill (PNDGUL01FLUS). 1985-11: NONE GIVEN (U85GHO01FLUS).
PITYFLEX*30	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2005-08-03	2005-08-03: Dry roadside, mostly on steep slopes from old sandhill to roadside (PNDGUL01FLUS).
PITYFLEX*44	<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	2016-10-12	Large roadside colony in full-bloom, mixed with <i>Dicerandra linearifolia</i> var. <i>robustior</i> .



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PITYFLEX7	<i>Pityopsis flexuosa</i>	Zigzag silkgrass	G-3	S-3	N	E	2005-08-03	2005-08-03: Woods on the south side of road are planted shortleaf pine with dense canopy cover and very sparse groundcover; north side is regenerating sandhill with <i>Pinus palustris</i> , <i>Quercus laevis</i> , <i>Quercus geminata</i> (PNDGUL01FLUS). 1985-11-19: DISTURBED LONGLEAF PINE-OAK WOODS, NOW WITH YOUNG TURKEY OAK BLUEJACKOAK, YOUNG LONGLEAF AND SLASH PINES. ASSOC SP: CENTIPEDE GRASS, OPUNTIA, POLY-GONELLA, AND OTHERS (S85GHOFSLUS).	2005-08-03: in leaf, hundreds to thousands of plants forming part of the dominant ground cover in regenerating sandhill, also on roadsides (PNDGUL01FLUS).		
PLEUPYR18	<i>Pleurobema pyriforme</i>	Oval Pigtoe	G-2	S1S2	E	FE	1993-06-17	1993-06-17: Blackwater Stream (PNDBR106FLUS).	1993-06-17: Jayne Brim-Box collected two individuals (PNDBR106FLUS).		
PLEUPYR20	<i>Pleurobema pyriforme</i>	Oval Pigtoe	G-2	S1S2	E	FE	1957-11-07	1957-11-07: Blackwater Stream (PNDBR106FLUS).	1957-11-07: One individual discovered. Collection code is MFM7634 (PNDBR106FLUS).		
PSEUSUWA13	<i>Pseudemys concinna suwanniensis</i>	Suwannee Cooter	G5T3	S-3	N	N	2001-05-23	Medium-sized river of mostly blackwater, but some alluvial characteristics. Level fluctuates substantially with rainfall and drought. Sandy and muddy bottom.	2001-05 and 2000-09: G. Wallace recorded 33 basking individuals throughout stretch, from 3.5 km below dam to within 1 km of Franklin County line (U06WAL03FLUS; PNDWAL04FLUS). 2000-07-01: D. Jackson and D. Redmond saw several individuals, mostly immature, in stretch of several miles on either side of Pine Creek Landing (FR 335) (PNDJAC01FLUS). 1980-1983: G. Brock reported occasional observations of species in lower river near Ochlockonee River State Park (PNDBRO03FLUS).		
QUADINFU2	<i>Quadrula infucata</i>	Sculptured Pigtoe	G-3	S2S3	N	N	2014 pre	Lower Ochlockonee River, from below Lake Talquin (Jackson Bluff dam) downstream to head of Ochlockonee Bay.	This occurrence is documented by multiple records extending from XX - YY. Williams et al. (2014) depict at least 11 sites from which this occurrence has been documented. 		



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QUADINFU3	<i>Quadrula infucata</i>	Sculptured Pigtoe	G3	S2S3	N	2014 pre	Ochlocknee River, upper. Most of land bordering this stretch of river is undeveloped, much of it forested.
QUADINFU4	<i>Quadrula infucata</i>	Sculptured Pigtoe	G3	S2S3	N	2014 pre	Little River (Ochlocknee River drainage) upstream of Lake Talquin. Most of the land bordering this stretch of river is undeveloped, much of it forested.
RHODALAB*2	<i>Rhododendron alabamense</i>	Alabama rhododendron	G4	S2	N	2014-06-03	2014-06-03: 2 plants present. 2008-04-16: Several mature trees in two separate locations, just past flowering (U08JEN02FLUS). 2006-03-21: 10-20 plants observed in bud on steep slope overlooking the Little River (PNDJEN03FLUS; PNDFRA06FLUS). 1997-04-10: on shallower, west-facing slopes on southern portion of slope forest, several patches at mid- and lower-slopes, some 15-18 feet tall with 2" dbh stems. Just past flowering. 1997-04-05: on steepest part of slope, with north aspect, six stems, most mature, five in flower in one small area, with another patch of two stems 50 feet south, also flowering (PNDCHA05FLUS).



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RH0DAUST*10	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	E	1999-10-28: INTACT, GOOD QUALITY UPLAND HARDWOOD FOREST OR SLOPE FOREST ON MID AND LOWER SLOPE OF RAVINE WITH STREAM FLOWING NORTH INTO LAKE TALQUIN; CANOPY OF FAGUS GRANDIFOLIA, QUERCUS HEMISPHAERICA, Q. ALBA, ACER RUBRUM, MAGNOLIA GRANDIFLORA, PINUS GLABRA, OXYDENDRON ARBOREUM, AND CARYA GLABRA. HERBS INCLUDE CHASMANTHIUM SESSILIFOLIUM, MITCHELLA REPENS, AND SMILAX PUMILA; MID TO UPPER SLOPES HAVE BEEN HEAVILY DISTURBED AND ENCRONCHED BY WEEDY QUERCUS HEMISPHAERICA. RESTORATION SHOULD FOCUS ON CONTROLLING THIS ENCRONCHMENT AND ALLOWING MESIC SPECIES TO MOVE UPSLOPE (PNDCHA05FLUS).
RH0DAUST*58	<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	E	2000-08-24: MESIC HARDWOOD FOREST (U00KEP03FLUS). 2000: ONE PLANT ALONG NATURE TRAIL (U00KEP03FLUS).
SCIUNIGE*183	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	2008-10-15: Cut over, fire suppressed, oak dominated upland pine habitat.
SCIUNIGE*237	<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N	2013-03-14: Thinned pine plantation that is receiving prescribed fire, now classified as upland pine.
SELOFERR*1	<i>Sebioodon ferrugineus</i>	Rusty Cebrionid Beetle	G2	S1S2	N	N	1961-07-10: No description given (B99GAL01FLUS). 1961-07-10: This species was collected using a black light trap. It was collected on three other dates, all in June or July, going back to 1948 (B99GAL01FLUS).



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SPHORUFT1	<i>Sphodros rufipes</i>	Red-legged Pursue-web Spider	G4	S3	N	N 1998-08-26	1998-08-26: Paul Moler and Barry Mansell recorded <i>Sphodros rufipes</i> from this location and found an egg sac with 300 eggs (U98MOL03FLUS).
SPHORUFT18	<i>Sphodros rufipes</i>	Red-legged Pursue-web Spider	G4	S3	N	N 1938	1938: Gertsch and Platnick (1980) recorded species as present here, based on several collections from 1934-1938. More precise and updated record is needed (A80GER01FLUS).
SPHORUFT22	<i>Sphodros rufipes</i>	Red-legged Pursue-web Spider	G4	S3	N	N 2016-04-25	2016-04-25: species seems to be common, though survey needed (PNDJAC01FLUS).
STEMWALA52	<i>Stewartia malecodendron</i>	silky camellia	G4	S3	N	E 2020-01-09	2020-01-09: Around 100 plants estimated. Many small shrubs scattered around with a few larger individuals. 2008-04-16: Around 20 healthy plants in two distinct areas. See Source Observations Tab for detailed information at each area (U08JEN02FLUS). 1997-06-04: Although plants were flowering abundantly in April, no fruits were observed in early June. 1997-04-16: Hundreds of stems along slopes, many in flower and bud (PNDCHA05FLUS). 1997-04-05: 10-15 plants were observed growing along steep slope. All plants were mature and in bud (PNDMUR01FLUS).



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Map Label	Scientific Name	Common Name	Rank	Status	Description
STEWMA453	<i>Stewartia malacodendron</i>	silky camellia	G4	S3	N
				E	2001-06-07
					2001-06-07: PATCH OCCURS ON A SLOPE BREAK JUST ABOVE RICHLANDER CREEK; GROWING UNDER VERY LARGE, OLD FAGUS GRANDIFOLIA, QUERCUS ALBA, AND TULIPIFERA LIRIODENDRON; WITH RHAPIDOPHYLLUM HYSTRIX, OSTRYA VIRGINIANA, SYMPLOCOS TINCTORIA, ARUNDINARIA GIGANTEA, CHASMANTHIUM SESSILIFOLIUM, BIGNONIA ACROSTICHOIDES, SANGUINARIA CANADENSIS, TRILLIUM MACULATUM, POLYGONATUM BIFLORUM; PLANTS OCCUR JUST DOWNSLOPE FROM OLD DIRT AND SLASH PILES LEFT FROM LOGGING; SMALL LIMEROCK BOULDERS ARE SCATTERED ON SURFACE (PNDCHA05FLUS).
TACHTHOR*6	<i>Tachopteryx thoreyi</i>	Gray Petaltail	G4	S3	N
					2012-05-20
					No description given.
TAENBURK*2	<i>Taeniopteryx burksi</i>	Eastern Willowfly	G5	S1S2	N
					1988-12-15
					1988-12-15: No description given (U07RAS01FLUS).
					Three individuals observed at two locations here
					1988-12-15: One specimen was collected using a Hester-Dendy (U07RAS01FLUS).
					1987-12-03: One specimen was collected using a basket (U07RAS01FLUS).
					1985-12-05: Eight specimens were collected using a dip net (U07RAS01FLUS).
					1979-Pre: An unknown number of specimens were collected (U07RAS01FLUS).
					1968-12-21: One specimen was collected (U07RAS01FLUS).



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UPLAFORE*138	Upland hardwood forest		G5	S3 N N	1999: SLOPE FOREST OCCURS ON STEEP SLOPES OF A TRUE STEEPHEAD WITH SEEPAGE AND UNDERCUTTING AT THE HEAD; A BAYGALL (GPS 006) OCCURS IN THE BOTTOM; SEEPAGE FLOWS NORTH INTO BEAR CREEK; UPPERMOST SLOPES AND SURROUNDING UPLANDS ARE XERIC SANDHILL RECOVERING FROM SILVICULTURE AND IN NEED OF FIRE; LAUREL OAKS ARE CREEPING DOWNSLOPE (PNDCHA05FLUS).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 55 (see U10FNA01FLUS for updated community descriptions). 1999-10-31: HIGH QUALITY SLOPE FOREST IN STEEPHEAD; CANOPY INCLUDES WHITE OAK, SOUTHERN MAGNOLIA, BEECH, LAUREL OAK, FLORIDA MAPLE, BASSWOOD, SPRUCE PINE, SOURWOOD, AND PIGNUT HICKORY; SUBCANOPY INCLUDES AMERICAN HOLLY, HOP HORNBEAM, IRONWOOD, WILD OLIVE, AND SILVERBELL; SHRUBS INCLUDE WITCH HAZEL, WILD OLIVE, FRINGE TREE; HERB LAYER INCLUDES CHRISTMAS FERN, SARSAPARILLA VINE, AND CORAL BEAN (PNDCHA05FLUS). 1977: NICE HARDWOOD FOREST WITH INTERESTING SHRUBS & HERBS: SOUTHERN MAGNOLIA, WHITE OAK, SWAMP CHESTNUT OAK, SOURWOOD, PIGNUT HICKORY, BLUE-BEECH, AMERICAN HOLLY, FLA MAPLE, DOGWOOD, BASSWOOD, SPRUCE PINE, & SILVER BELL (U77BAK01FLUS).



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Map Label	Scientific Name	Common Name	Rank	Rank	Status	Listing	Date	Description	EO Comments
UPLAF0E*140	Upland hardwood forest		G5	S3	N	N	2005-03-12	1999-10-21: SLOPE FOREST OCCUPIES THE MID TO LOWER SLOPES OF A STEEPHEAD DRAINING INTO BEAR CREEK. THE LOWER PORTION OF THE DRAIN HAS BEEN IMPOUNDED. THE UPPER PORTION SUPPORTS A BAYGALL DOMINATED BY ILLICIUM FLORIDANUM, WITH A TULIP POPLAR-LOBLOLLY BAY CANOPY. XERIC UPPER SLOPES OF THE STEEPHEAD ARE FIRE SUPPRESSED--A SAND ROAD SEPARATES THE STEEPHEAD FROM THE SURROUNDING XERIC UPLANDS, WHICH SUPPORT A RECOVERING SANDHILL WITH YOUNG LONGLEAF PINE AND GOOD GROUND COVER (PNDCHA05FLUS).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 58 (see U10FNA01FLUS for updated community descriptions). 2005-03-12: see general and management comments (PNDKIN02FLUS). 1999-10-21: IN ADDITION TO THE SPECIES MENTIONED IN THE 1989 LIST BELOW, THE CANOPY INCLUDES TILIA AMERICANA, PRUNUS SEROTINA, QUERCUS ALBA, Q. VIRGINIANA, AND Q. HEMISPHAERICA; THE UNDERSTORY ALSO INCLUDES CHIONANTHUS VIRGINICUS, VACCINIUM ARBOREUM, ILEX OPACA, CALLICARPA AMERICANA, AND HAMAMELIS VIRGINIANA (PNDCHA05FLUS). 1989: CANOPY: CARYA GLABRA, QUERCUS LAURIFOLIA, MAGNOLIA GRANDIFLORA, QUERCUS MICHAUXII, UNDERSTORY TREES: OSMANTHUS AMERICANUS, OSTRYA VIRGINIANA, CORNUS FLORIDA, ALSO IN CANOPY: FAGUS GRANDIFOLIA, LIRIODENDRON TULIPIFERA, LIQUIDAMBAR STYRACIFLUA (PNDJOH01FLUS).



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UPLAFORE*141	Upland hardwood forest		G5	S3	N	N	2004	SLOPE FOREST. 1997-04-05: SURROUNDING UPLANDS INCLUDE PINE PLANTATIONS, GAME CLEARINGS, OLD FIELDS, AND FREQUENTLY-BURNED MATURE MESIC FLATWOODS (PNDCHA05FLUS).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 60 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-04-05) (U05FNA02FLUS). 1997-04-05: HIGH QUALITY SLOPE FOREST OCCUPYING STEEP, WEST-FACING SLOPES ABOVE THE LITTLE RIVER AND SLOPES ALONG ASSOCIATED RAVINES. CANOPY DOMINATED BY MATURE FAGUS GRANDIFOLIA, MAGNOLIA GRANDIFLORA, CARYA GLABRA, LIRIODENDRON TULIPIFERA AND QUERCUS ALBA. OTHER IMPORTANT CANOPY SPECIES INCLUDE TILIA AMERICANA, QUERCUS SHUMARDII, OSTRYA VIRGINIANA, PINUS GLABRA, LIQUIDAMBAR STYRACIFLUA AND FRAXINUS AMERICANA. ALSO PRESENT IN THE CANOPY ARE ACER BARBATUM, MAGNOLIA PYRAMIDATA, AND QUERCUS MICHAUXII. HALEZIA SPP., OSTRYA VIRGINIANA, AND ILEX OPACA OCCUR IN THE SUBCANOPY. SHRUB SPECIES INCLUDE RHAPIDOPHYLLUM HYSTRIX, AESCULUS PAVIA, HYDRANGEA QUERCIFOLIA, ACER BARBATUM, HAMAMELIS VIRGINIANA AND SYMPLOCOS TINCTORIA. RARE SHRUBS INCLUDE STEWARTIA MALOCODENDRON AND RHODODENDRON ALABAMENSE. HERB LAYER INCLUDES SEVERAL RARE SPECIES, OR SPECIES AT THE SOUTHERN LIMIT OF THEIR RANGES, INCLUDING HEXASTYLIS ARIFOLIA, POLYGONATUM BIFLORUM, UVULARIA PERFOLIATA, CHAMAELIRIUM LUTEUM, LILIUM MICHAUXII, AND SANGUINARIA CANADENSIS. OTHER HERB SPECIES OBSERVED INCLUDE



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UPLAFORE*146	Upland hardwood forest		G5	S3	N	2004 1997-04-05: SURROUNDING UPLANDS INCLUDE PINE PLANTATIONS/GAME CLEARINGS, AND OLD FIELDS (CHAFIN). SLOPE FOREST OVERLOOKS HIGH QUALITY FLOODPLAIN FOREST ALONG THE LITTLE RIVER. 2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 71 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1997-04-05) (U05FNA02FLUS). [PATCH OF HIGH QUALITY SLOPE FOREST OF CA.25 ACRES; SEE CTR0000000*060 FOR MORE DETAILS.]



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UPLAFORE*160	Upland hardwood forest		G5 S3 N N	1993-04-03: TALL MATURE LARGELY DECIDUOUS HARDWOOD FOREST WITH A DIVERSITY OF CANOPY AND SUBCANOPY TREE SPECIES AND A SPARSE UNDERSTORY (PNDJUH01FLUS).	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 86 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (previous value was 1999-04-03) (U05FNA02FLUS). 1999-04-03: East-facing slope above the Little River floodplain. Slopes range from gentle to very steep in small side ravines. Slope forest has a diverse canopy of Fagus grandifolia, Magnolia grandiflora, Quercus michauxii, Q. alba, Q. velutina, Q. shumardii, Linodendron tulipifera, Prunus serotina, Nyssa sylvatica, Fraxinus americana, Pinus glabra, P. taeda, Carya glabra, and C. tomentosa. Subcanopy of Ostrya virginiana (which also gets into canopy occasionally), Acer barbatum, Ilex opaca, Carpinus caroliniana, and Halesia diptera. Shrub layer is nearly impenetrable in some areas due to dense patches of Rhipidophyllum hystrix, and open in other areas with scattered Vaccinium elliotii, Symplocos tinctoria, Callicarpa americana, Crataegus marshallii, Viburnum dentatum, Aesculus pavia, and Hamamelis virginiana. There are occasional dense patches of Arundinaria gigantea. The herb layer is dominated by Chasmanthium sessiliflorum in most areas, with Sanguinaria canadensis, Polygonatum biflorum, Arisaema dracontium, A. triphyllum, Sanicula smailii, Aristolochia serpentaria, Trillium underwoodii, Dioscorea quaternata, Passiflora lutea, Corallorhiza wisteriana, Conopholis americana, Hymenocallis occidentalis, Polyostichum acrostichoides, Bignonia capreolata, also present. Lower slopes grading into floodplain have Listera australis, Sabal minor, Mitchella repens, Thelypteris kunthii, Senecio aureus. Large, old stumps indicate logging several decades ago; the dominance of trees with



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				low timber value (beech, magnolia, hophornbeam) suggests that only oaks and other desirable timber species were removed. Fires in the adjacent upland have crept into the upper slopes of this community in the last year (PNDCHA05FLUS).



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UPLAFOR*162	Upland hardwood forest		G-5	S-3	N	1999-10-28
						1999-10-28: XERIC UPLANDS LARGELY CONVERTED TO SILVICULTURE AND ARE IN NEED IN PRESCRIBED FIRE (PNDCHA05FLUS).
						2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 88 (see U10FNA01FLUS for updated community descriptions). 1999-10-28: INTACT. GOOD QUALITY UPLAND HARDWOOD FOREST OR SLOPE FOREST ON MID AND LOWER SLOPE OF RAVINE WITH STREAM FLOWING NORTH INTO LAKE TALQUIN; CANOPY OF FAGUS GRANDIFOLIA, QUERCUS HEMISPHERICA, Q. ALBA, ACER RUBRUM, MAGNOLIA GRANDIFLORA, PINUS GLABRA, OXYDENDRON ARBOREUM, AND CARYA GLABRA; HERBS INCLUDE CHASMANTHIUM SESSILIFOLIUM, MITCHELLA REPENS, AND SMILAX PUMILA; MID TO UPPER SLOPES HAVE BEEN HEAVILY DISTURBED AND ENCRONCHED BY WEEDY QUERCUS HEMISPHERICA; RESTORATION SHOULD FOCUS ON CONTROLLING THIS ENCRONCHMENT AND ALLOWING MESIC SPECIES TO MOVE UPSLOPE (PNDCHA05FLUS).



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Global State Federal State Observation

Map Label	Scientific Name	Common Name	Rank	Rank	Status	Listing	Date	Description	EO Comments
UPLAFORE*3	Upland hardwood forest		G-5	S-3	N	N	1999-10-28	1999: FOREST OCCURS ON STEEP SLOPES ABOVE LAKE TALQUIN; RIDGE ABOVE SLOPE IS FIRE-SUPPRESSED AND DOMINATED BY LAUREL OAK AND OTHER WEEDY SPECIES; QUALITY OF UPLAND HARDWOOD FOREST DECLINES SOUTH OF SMALL RAVINE ON WEST SIDE OF PENINSULA (PNDCHA05FLUS).	1999-10-28: SMALL BUT HIGH QUALITY UPLAND HARDWOOD FOREST ON VERY STEEP, NORTH AND WEST FACING SLOPES OVERLOOKING LAKE TALQUIN; CANOPY INCLUDES WHITE OAK, SOUTHERN MAGNOLIA, BEECH, LIVE OAK, FLORIDA MAPLE, BASSWOOD, SPRUCE PINE, SWEET GUM, AND PIGNUT HICKORY; SUBCANOPY INCLUDES HOP HORNBREAM, SASSAFRAS, AMERICAN HOLLY, HACKBERRY, PERSIMMON, AND SILVERBELL; SHRUBS INCLUDE OAK-LEAF HYDRANGEA, STRAWBERRY BUSH, AMERICAN BEAUTYBUSH, RED BUCKEYE, REDBUD, WITCH HAZEL, PARSLEY-LEAVED HAW, FRINGE TREE, HORSE SUGAR/SWEET LEAF, Highbush BLUEBERRY, BLUE PALM, SMALL-FLOWERED PAWPAW; HERB LAYER INCLUDES EBONY SPLEENWORT, CHRISTMAS FERN, CATBRIER, GOLDENROD, RIVER OATS, POISON IVY, CROSS VINE, CLIMBING MILKWEED, YELLOW PASSIONFLOWER, SASSAPARILLA VINE, AND CORAL BEAN (PNDCHA05FLUS).
UTTEPEGG*6	<i>Utterbackia peggiae</i>	Florida Floater	G-3	S-3	N	N	1993 pre	No general description given	1993: a collection of 15 specimens cited (A95BOG01FLUS).
UWULFOR*11	<i>Uvularia floridana</i>	Florida merrybells	G-3	S-1	N	E	2003	2003: none given	2003: Observed 1-10 plants in flower/bud, covering less than 1 meter square (F03FNA08FLUS).
UWULFOR*12	<i>Uvularia floridana</i>	Florida merrybells	G-3	S-1	N	E	2006-04-06	2006-04-06: seepage area in upland hardwood forest. Growing with <i>Lonicera japonica</i> - herbicide use not recommended (F06FNA14FLUS).	2006-04-06: more than 1000 plants in leaf and flower (F06FNA14FLUS).



**FNAI ELEMENT OCCURRENCE REPORT on or near
Lake Talquin State Forest 10-year Land Management Plan**



Map Label	Scientific Name	Common Name	Global State Rank	Federal State Rank	Status	Listing	Observation Date	Description	EO Comments
UVULFLOR*2	<i>Uvularia floridana</i>	Florida merrybells	G3	S1	N	E	2001-03-27	2001-03-27: SLEEPY LOWER SLOPE IN A SHALLOW RAVINE WITH A BLACKWATER STREAM FEEDING INTO LAKE TALQUIN; PLANTS ARE WITH SYMPLOCOS TINCTORIA, QUERCUS MICHAUXII, ILEX CORIACEA, LIRIODENDRON TULIPIFERA, MAGNOLIA GRANDIFOLIA, VITIS ROTUNDIFOLIA, AND ARE IMMEDIATELY UPSLOPE FROM A VERY WET SEEPAGE WITH SPHAGNUM MOSS (PNDCHA05FLUS).	2001-03-27: APPROX 20 PLANTS, MOST SINGLE-STEMMED, ABOUT 5 WITH TWO BRANCHES AND FRUIT (PNDCHA05FLUS).

Florida Natural Areas Inventory

Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon	G3T2T3	S2?	T	FT
<i>Alligator mississippiensis</i>	American Alligator	G5	S4	SAT	FT(S/A)
<i>Anodonta heardi</i>	Apalachicola Floater	G2	S1S2	N	N
<i>Apalone spinifera</i>	Spiny Softshell	G5	S3	N	N
<i>Asarum arifolium</i>	little brown jug		S3	N	T
<i>Attenella attenuata</i>	Hirsute Mayfly		S1S2	N	N
Baygall		G4	S4	N	N
Bottomland forest			S3	N	N
<i>Brickellia cordifolia</i>	Flyr's brickell-bush	G3	S2	N	E
<i>Calycanthus floridus</i>	sweet-shrub	G5	S2	N	E
<i>Cordulegaster sayi</i>	Say's Spiketail	G3	S3	N	N
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3	N	N
<i>Desmognathus apalachicola</i>	Apalachicola Dusky Salamander		S2S3	N	N
<i>Dryobates borealis</i>	Red-cockaded Woodpecker	G3	S2	E	FE
<i>Elliptio purpurella</i>	Inflated Spike	G2	S2	N	N
<i>Elliptioideus sloatianus</i>	Purple Bankclimber		S1S2	T	FT
<i>Erythronium umbilicatum</i>	trout lily	G5	S2	N	E
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	C	ST
<i>Graptemys barbouri</i>	Barbour's Map Turtle	G2	S2	N	ST
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3	N	N
<i>Hemidactylium scutatum</i>	Four-toed Salamander		S2	N	N
<i>Hesperia attalus slossonae</i>	Seminole Skipper	G3G4T3	S3	N	N
<i>Kalmia latifolia</i>	mountain laurel	G5	S3	N	T
<i>Lilium michauxii</i>	Carolina lily	G4G5	S2	N	E
<i>Lilium superbum</i>	Turk's cap lily	G5	S1	N	E
<i>Lobelia apalachicolensis</i>		G2	SNR	N	N
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3G4	S3	N	N
<i>Magnolia pyramidata</i>	pyramid magnolia	G4	S3	N	E
<i>Matelea floridana</i>	Florida spiny-pod	G2	S2	N	E
<i>Megalonaia nervosa</i>	Washboard	G5	S3	N	N
Mesic flatwoods		G4	S4	N	N
<i>Myriophyllum laxum</i>	Piedmont water milfoil	G3	S3	N	N
<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron	G5	S3	N	N
<i>Pituophis melanoleucus</i>	Pine Snake	G4	S3	N	ST
<i>Pityopsis flexuosa</i>	zigzag silkgrass	G3	S3	N	E
<i>Pleurobema pyriforme</i>	Oval Pigtoe	G2	S1S2	E	FE
<i>Pseudemys concinna suwanniensis</i>	Suwannee Cooter	G5T3	S3	N	N
<i>Quadrula infucata</i>	Sculptured Pigtoe	G3	S2S3	N	N
<i>Rhododendron alabamense</i>	Alabama rhododendron	G4	S2	N	E
<i>Rhododendron austrinum</i>	Florida flame azalea	G3	S3	N	E
<i>Sciurus niger niger</i>	Southeastern Fox Squirrel	G5T5	S3	N	N
<i>Sphodros rufipes</i>	Red-legged Purse-web Spider	G4	S3	N	N
<i>Stewartia malacodendron</i>	silky camellia		S3	N	E
<i>Tachopteryx thoreyi</i>	Gray Petaltail		S3	N	N
Upland hardwood forest		G5	S3	N	N
<i>Uvularia floridana</i>	Florida merrybells	G3	S1	N	E
Documented-Historic					
<i>Alasmidonta wrightiana</i>	Ochlockonee Arc-mussel	GH	SH	N	N
<i>Ameiurus serracanthus</i>	Spotted Bullhead	G3	S3	N	N

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Florida Natural Areas Inventory

Aggregated Biodiversity Matrix Report



Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S3	N	N
<i>Drymarchon couperi</i>	Eastern Indigo Snake		S3	T	FT
Geological feature		GNR	SNR	N	N
<i>Hamiota subangulata</i>	Shiny-rayed Pocketbook	G2	S1S2	E	FE
Likely					
<i>Magnolia ashei</i>	Ashe's magnolia	G3	S2	N	E
<i>Medionidus simpsonianus</i>	Ochlocknee Moccasinshell	G1	S1	E	FE
<i>Mustela frenata olivacea</i>	Southeastern Weasel	G5T4	S3?	N	N
<i>Mycteria americana</i>	Wood Stork	G4	S2	T	FT
<i>Najas filifolia</i>	narrowleaf naiad	G3	S2	N	T
<i>Pandion haliaetus</i>	Osprey	G5	S3S4	N	N
Sandhill		G3	S2	N	N
Sandhill upland lake			S2	N	N
Upland pine			S2	N	N
<i>Ursus americanus floridanus</i>	Florida Black Bear	G5T4	S4	N	N
<i>Utterbackia peggyae</i>	Florida Floater	G3	S3	N	N
Potential					
<i>Achalarus lyciades</i>	Hoary Edge	G5	S2	N	N
<i>Agkistrodon contortrix</i>	Eastern Copperhead		S2	N	N
<i>Agrimonia incisae</i>	incised groove-bur	G3	S2	N	T
<i>Amblyscirtes aesculapius</i>	Lace-winged Roadside Skipper	G3G4	S3S4	N	N
<i>Ambystoma cingulatum</i>	Frosted Flatwoods Salamander	G2	S1	T	FT
<i>Amphinemura nigritta</i>	A Stonefly	G5	S2	N	N
<i>Andropogon arctatus</i>	pinewoods bluestem	G3	S3	N	T
<i>Antigone canadensis pratensis</i>	Florida Sandhill Crane	G5T2	S2	N	ST
<i>Asclepias viridula</i>	southern milkweed	G2	S2	N	T
<i>Asplenium x heteroresiliens</i>	Morzent's spleenwort		S1	N	N
<i>Athene cunicularia floridana</i>	Florida Burrowing Owl	G4T3	S3	N	ST
<i>Baptisia megacarpa</i>	Apalachicola wild indigo	G2	S1	N	E
<i>Calamintha dentata</i>	toothed savory	G3	S3	N	T
<i>Calopogon multiflorus</i>	many-flowered grass-pink	G2G3	S2S3	N	T
<i>Carex baltzellii</i>	Baltzell's sedge	G3	S3	N	T
<i>Carex chapmannii</i>	Chapman's sedge		S3	N	T
<i>Carex tenax</i>	sandhill sedge	G5?	S3	N	N
<i>Conradina glabra</i>	Apalachicola rosemary	G1	S1	E	E
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared Bat	G3G4	S1	N	N
<i>Croomia pauciflora</i>	croomia	G3	S2	N	E
<i>Croton elliotii</i>	Elliott's croton		SH	N	N
<i>Cyprinella leedsi</i>	Bannerfin Shiner	G4	S3	N	N
<i>Desmodium ochroleucum</i>	creamflower tick-trefoil	G2G3	S1	N	E
<i>Dichanthelium nudicaule</i>	naked-stemmed panic grass	G3Q	S3	N	T
<i>Eccopectura xanthenes</i>	A Stonefly	G5	S2	N	N
<i>Forestiera godfreyi</i>	Godfrey's swampprivet	G2	S2	N	E
<i>Gentiana pennelliana</i>	wiregrass gentian	G3	S3	N	E
<i>Heterodon simus</i>	Southern Hognose Snake	G2	S2S3	N	N
<i>Lachnocaulon digynum</i>	pineland bogbutton	G3G4	S3	N	T
<i>Lampropeltis getula</i>	Common Kingsnake	G5	S2S3	N	N
<i>Leitneria floridana</i>	corkwood	G3	S3	N	T
<i>Linum westii</i>	West's flax	G1	S1	N	E

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Florida Natural Areas Inventory

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<i>Lithobates capito</i>	Gopher Frog	G3	S3	N	N
<i>Litsea aestivalis</i>	pondspice	G3?	S2	N	E
<i>Lupinus westianus</i>	Gulf Coast lupine	G3T3	S3	N	T
<i>Lythrum curtissii</i>	Curtiss' loosestrife	G1	S1	N	E
<i>Macranthera flammea</i>	hummingbird flower	G3	S2	N	E
<i>Matelea alabamensis</i>	Alabama spiny-pod	G2	S2	N	E
<i>Micropterus notius</i>	Suwannee Bass	G3	S3	N	N
<i>Myotis austroriparius</i>	Southeastern Bat	G4	S3	N	N
<i>Nolina atopocarpa</i>	Florida beargrass	G3	S3	N	T
<i>Notophthalmus perstriatus</i>	Striped Newt	G2G3	S2	N	N
<i>Nuphar advena</i> ssp. <i>ulvacea</i>	West Florida cowli	G5T2	S2	N	N
<i>Peuceaea aestivalis</i>	Bachman's Sparrow	G3	S3	N	N
<i>Phoebanthus tenuifolius</i>	narrow-leaved phoebanthus		S3	N	T
<i>Phyllanthus liebmannianus</i> ssp. <i>platylepis</i>	pinewoods dainties	G4T2	S2	N	E
<i>Phyllophaga clemens</i>	Clemens' June Beetle	G2	S1	N	N
<i>Physostegia godfreyi</i>	Apalachicola dragon-head	G3	S3	N	T
<i>Pinguicula ionantha</i>	Godfrey's butterwort	G2	S2	T	E
<i>Pinguicula primuliflora</i>	primrose-flowered butterwort	G3G4	S3	N	E
<i>Platanthera integra</i>	yellow fringeless orchid		S3	N	E
<i>Pycnanthemum floridanum</i>	Florida mountain-mint	G3	S3	N	T
<i>Quercus arkansana</i>	Arkansas oak		S3	N	T
<i>Rhexia parviflora</i>	small-flowered meadowbeauty	G2	S2	N	E
<i>Rhexia salicifolia</i>	Panhandle meadowbeauty		S2	N	T
<i>Rhododendron chapmanii</i>	Chapman's rhododendron	G1	S1	E	E
<i>Ruellia noctiflora</i>	nightflowering wild petunia	G3?	S2	N	E
<i>Schisandra glabra</i>	bay star-vine	G3	S2	N	E
<i>Scutellaria floridana</i>	Florida skullcap	G2	S2	T	E
<i>Selonodon ferrugineus</i>	Rusty Cebionid Beetle		S1S2	N	N
<i>Spigelia gentianoides</i>	gentian pinkroot	G1	S1	E	E
<i>Stachydeoma graveolens</i>	mock pennyroyal	G2G3	S2S3	N	E
<i>Taeniopteryx burksi</i>	Eastern Willowfly	G5	S1S2	N	N
<i>Taxus floridana</i>	Florida yew	G2	S2	N	E
<i>Tiedemannia filiformis</i> ssp. <i>greenmanii</i>	giant water cowbane	G3	S3	N	E
<i>Torreya taxifolia</i>	Florida torreya	G1	S1	E	E
<i>Trillium lancifolium</i>	narrow-leaved trillium	G3	S2	N	E
<i>Xyris longisepala</i>	karst pond xyris	G2G3	S2S3	N	E
<i>Xyris scabrifolia</i>	Harper's yellow-eyed grass	G3	S3	N	T

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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).
- GNRNTR** = Neither the element nor the taxonomic subgroup has yet been ranked.

FNAI STATE ELEMENT RANK

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

FEDERAL LEGAL STATUS

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

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

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

STATE LEGAL STATUS

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

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

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

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

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

Element Occurrence Ranking

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

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

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

FNAI also uses the following EO ranks:

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

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

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

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

Exhibit N

Florida Fish and Wildlife Conservation Commission Listed Species Occurrence Records



Florida Fish and Wildlife Conservation Commission

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Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

Fish and Wildlife
Research Institute
Gil McRae
Director

727-896-8626
727-823-0166 FAX

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

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

October 23, 2020

Patti Anderson
Land Management Planner
Florida Forest Service

Dear Patti Anderson:

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

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

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

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

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

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

Because FNAI is funded to provide information to public agencies only, you may be required to pay a fee for this information. County-wide listed species information can be located at their website (<http://www.fnai.org>).

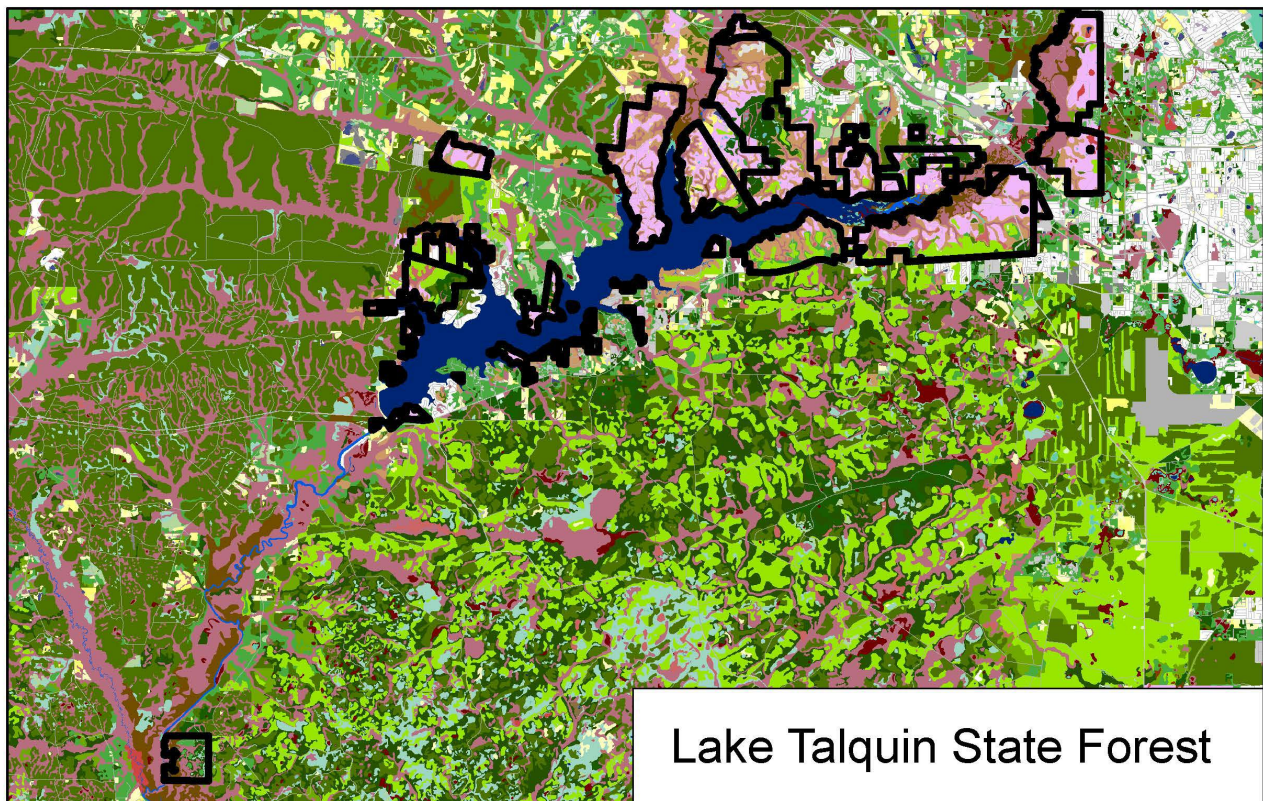
Please credit the Florida Fish and Wildlife Conservation Commission in any publication or presentation of these data. If you have any questions or further requests, please contact me at gisrequests@myfwc.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eva Salinas', with a stylized flourish at the end.

Eva Salinas
Research Assistant

ES
2020_6455
Enclosures



Cooperative Land Cover -- State Classes

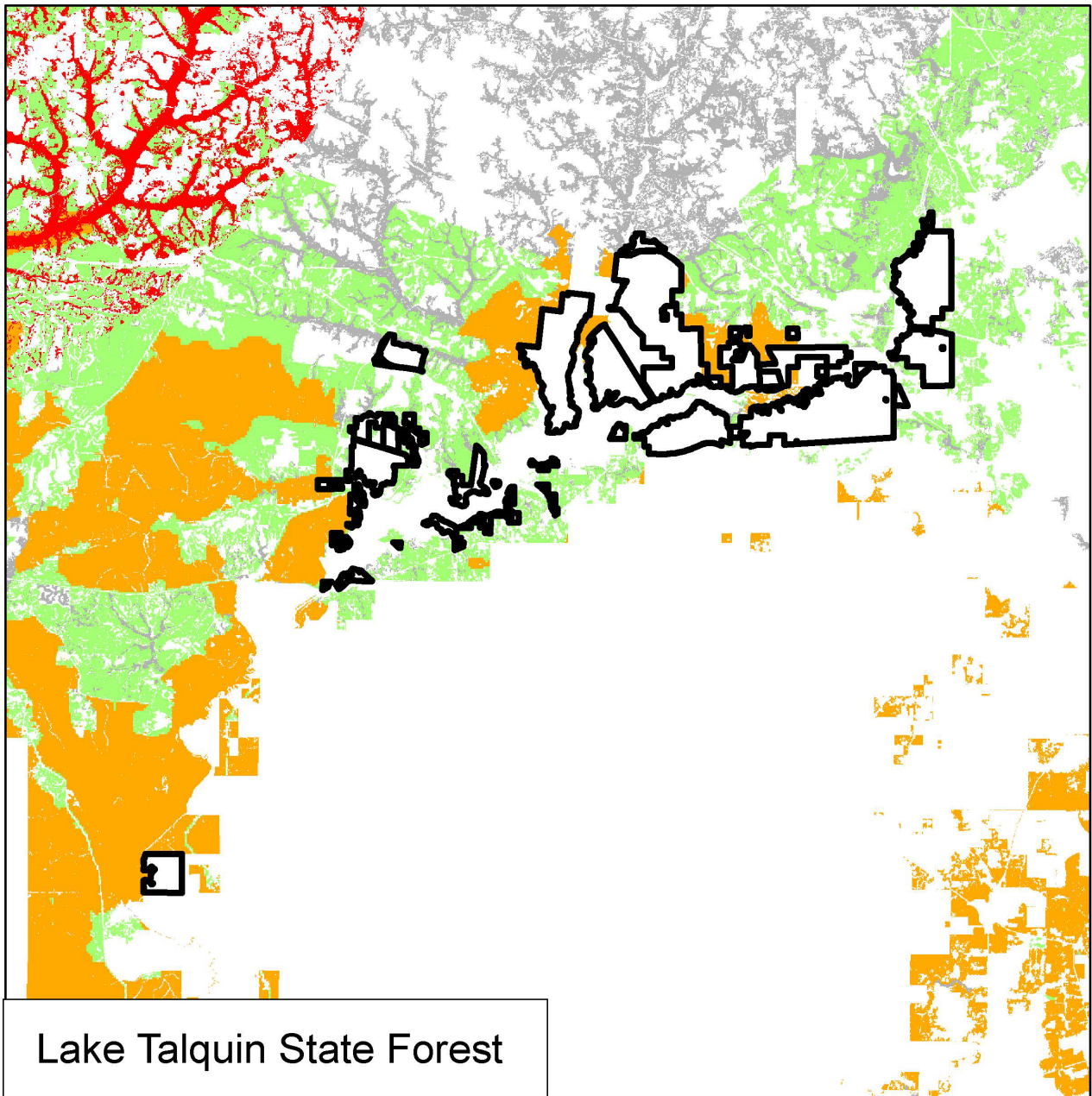
Hardwood Forested Uplands	Orchards/Groves	Cypress
Mesic Hammock	Tree Plantations	Dome Swamp
High Pine and Scrub	Vineyard and Nurseries	Basin Swamp
Scrub	Other Agriculture	Floodplain Swamp
Upland Pine	Transportation	Wet Flatwoods
Sandhill	Communication	Atlantic White Cedar
Mesic Flatwoods	Utilities	Baygall
Palmetto Prairie	Extractive	Hydric Hammock
Mixed Hardwood-Coniferous	Bare Soil/Clear Cut	Non-vegetated Wetland
Shrub and Brushland	Freshwater Non-Forested Wetlands	Cultural-Palustrine
Cultural - Terrestrial	Prairies and Bogs	Lacustrine
Low Intensity Urban	Marshes	Natural Lakes and Ponds
High Intensity Urban	Isolated Freshwater Marsh	Cultural - Lacustrine
Rural	Floodplain Marsh	Riverine
Cropland/Pasture	Freshwater Forested Wetlands	Natural Rivers and Streams
Improved Pasture	Cypress/Tupelo(incl Cy/Tu mixed)	

Approximate site boundary



Florida Fish and Wildlife
Conservation Commission
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FWC ID: 2020_6455 October 20, 2020



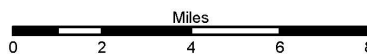
Lake Talquin State Forest

Prioritized SHCA's



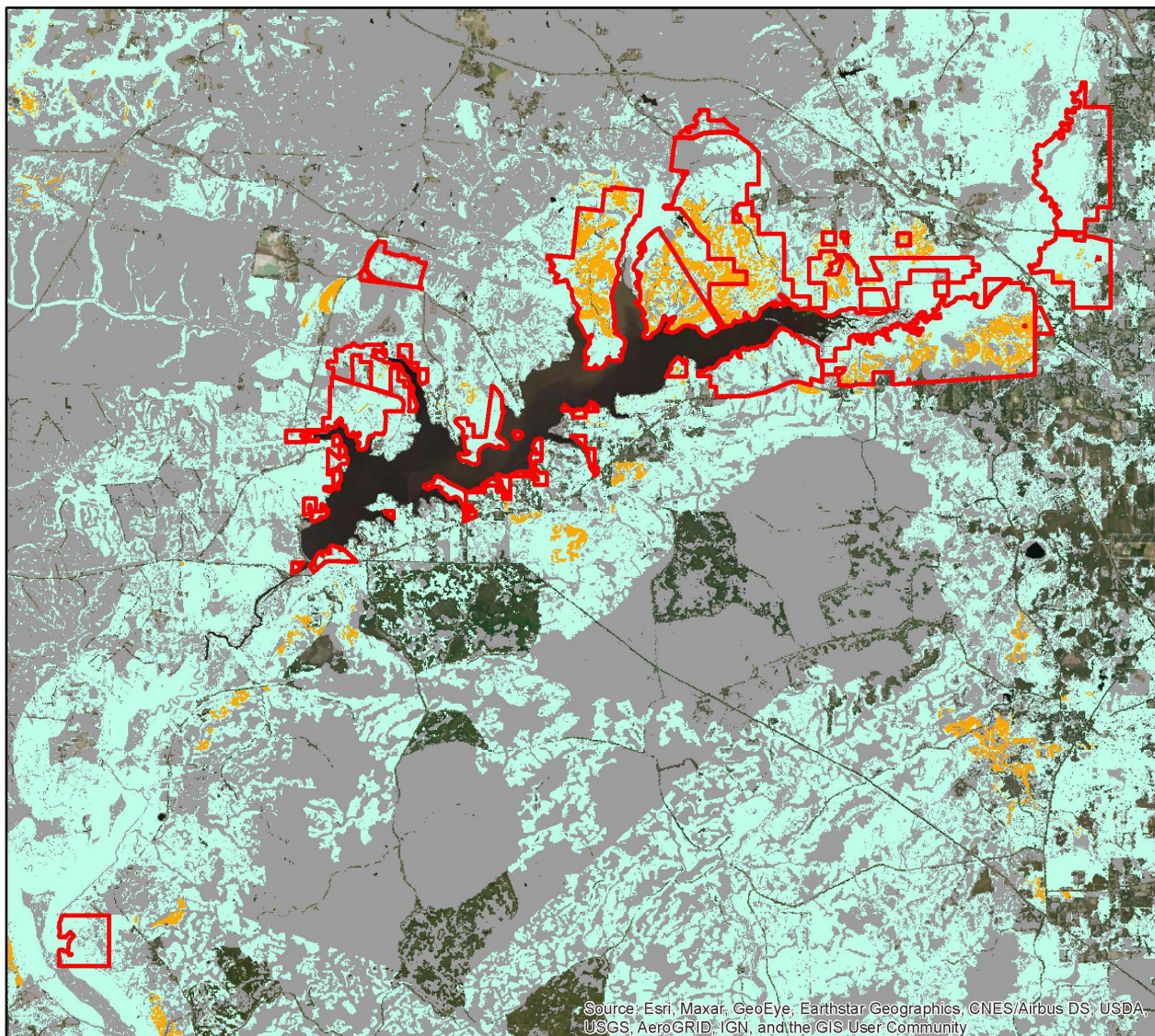
Approximate site boundary

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



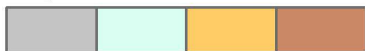
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FWC ID: 2020_6455 October 20, 2020



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

Species Richness



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



State Forest site boundary



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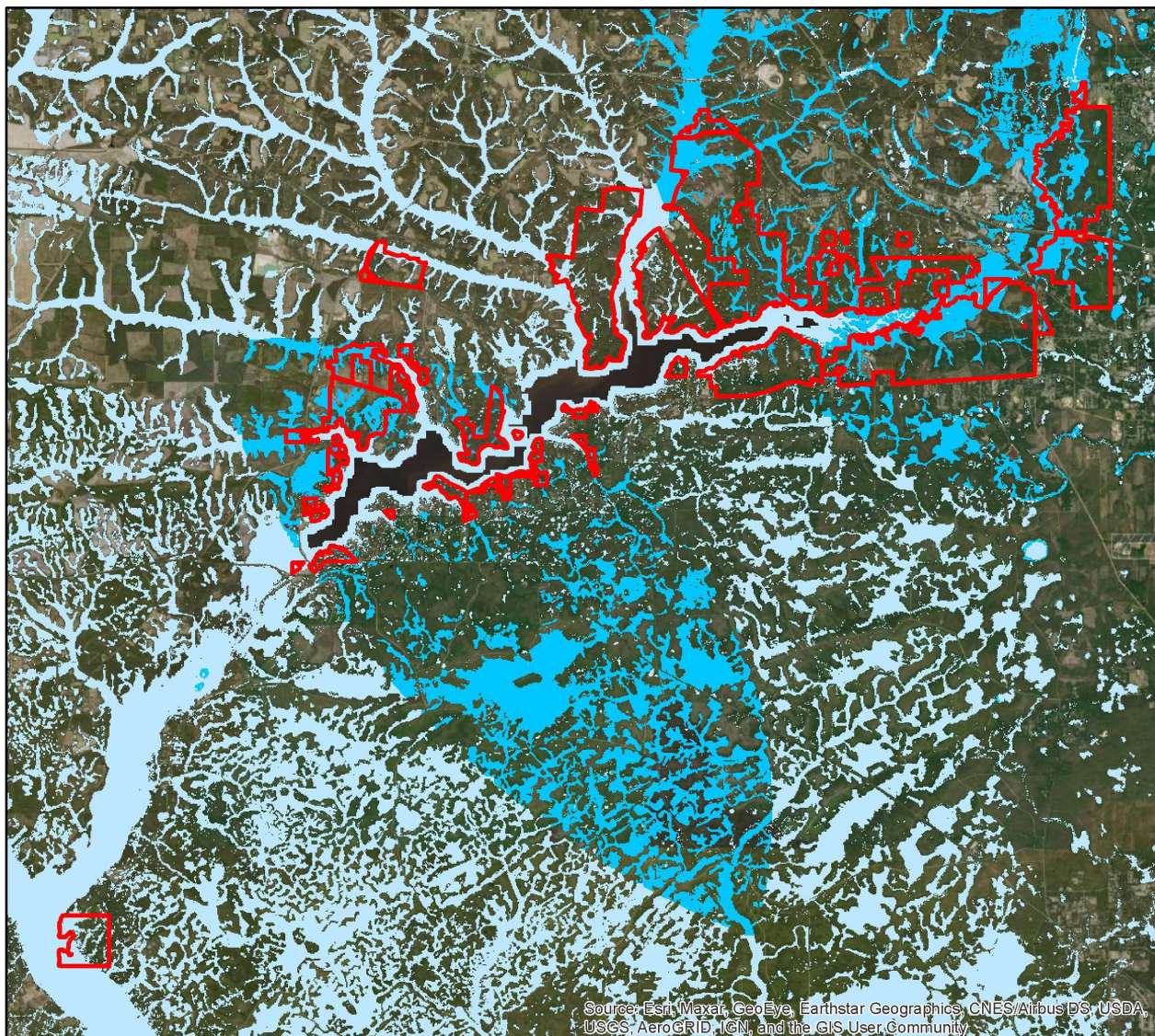


Lake Talquin State Forest

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



FWC ID: 2021_6532 December 21, 2021



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

Priority Wetlands

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

State Forest site boundary



Lake Talquin State Forest

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



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FWC ID: 2021_6532 December 21, 2021

Exhibit O

Lake Talquin State Forest 12-Year Fire History

Lake Talquin State Forest Burn Acres by Fiscal Year



Exhibit P

Invasive Species Map

Exhibit Q

Current FNAI Natural Communities and Cover Type Map

Exhibit R

Historic FNAI Natural Communities Map

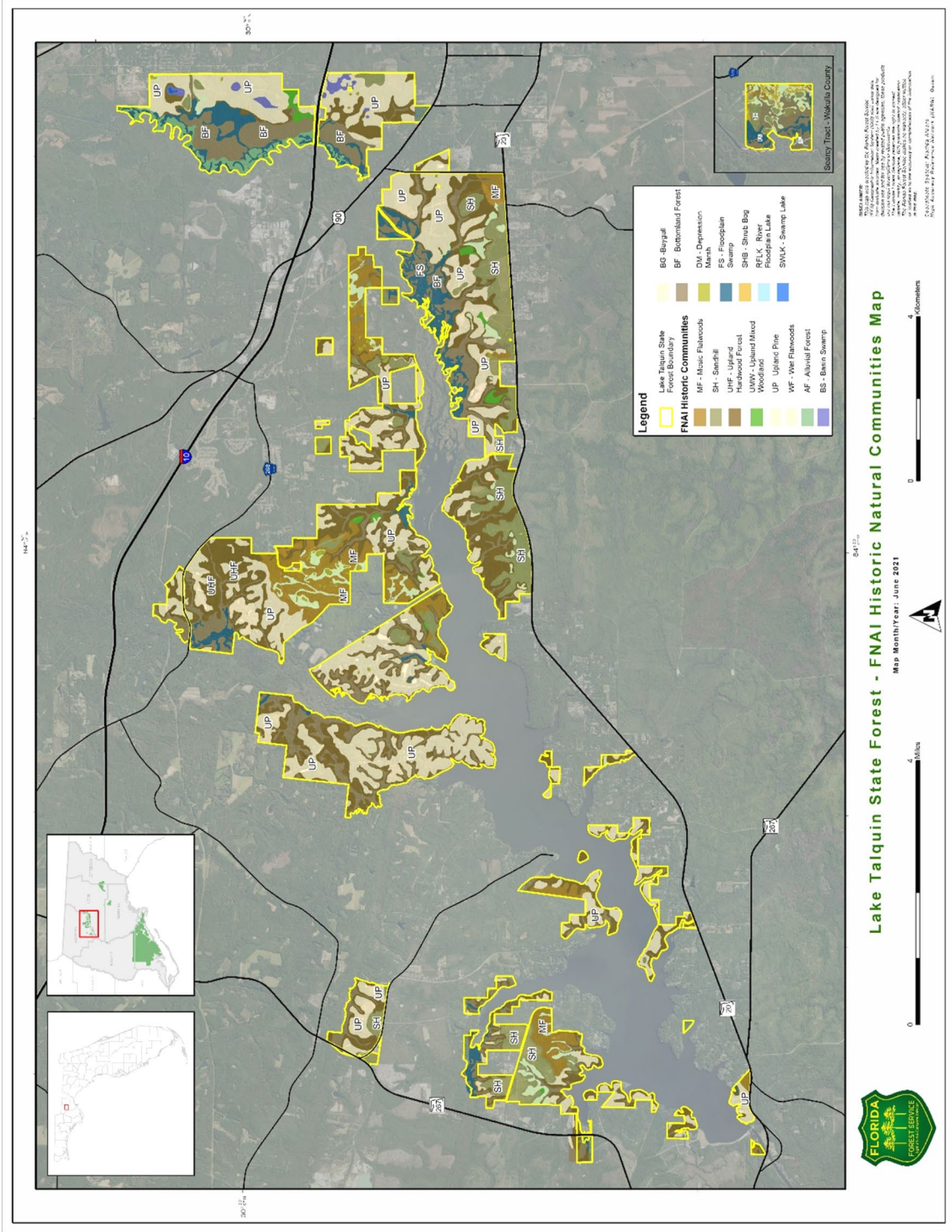


Exhibit S

Land Management Reviews (2014 & 2019)

2014 Land Management Review Team Report for Lake Talquin State Forest

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1. Introduction

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

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

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

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

1.1. Property Reviewed in this Report

Name of Site: Lake Talquin State Forest

Managed by: Florida Forest Service

Acres: 19,347.00

County(ies): Leon, Gadsden

Purpose(s) for Acquisition: To conserve, protect, manage and restore important ecosystems, landscapes and forests, especially if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, recreational, timber, or fish and wildlife resources which cannot otherwise be accomplished through local and state regulatory programs.

Acquisition Program(s): P2000/Florida Forever

Original Acquisition Date: 10/18/73

Area Reviewed: Entire Property

Last Management Plan Approval Date: 2/24/11

Review Date: 9/15/14

Agency Manager and Key Staff Present:

- Keith Cummings, Manager
- Chris Colburn, Forestry Center Manager
- Tom Gilpin, Senior Forester
- Marti Miller, Recreation Coordinator
- Randy Gregory, Operations Administrator

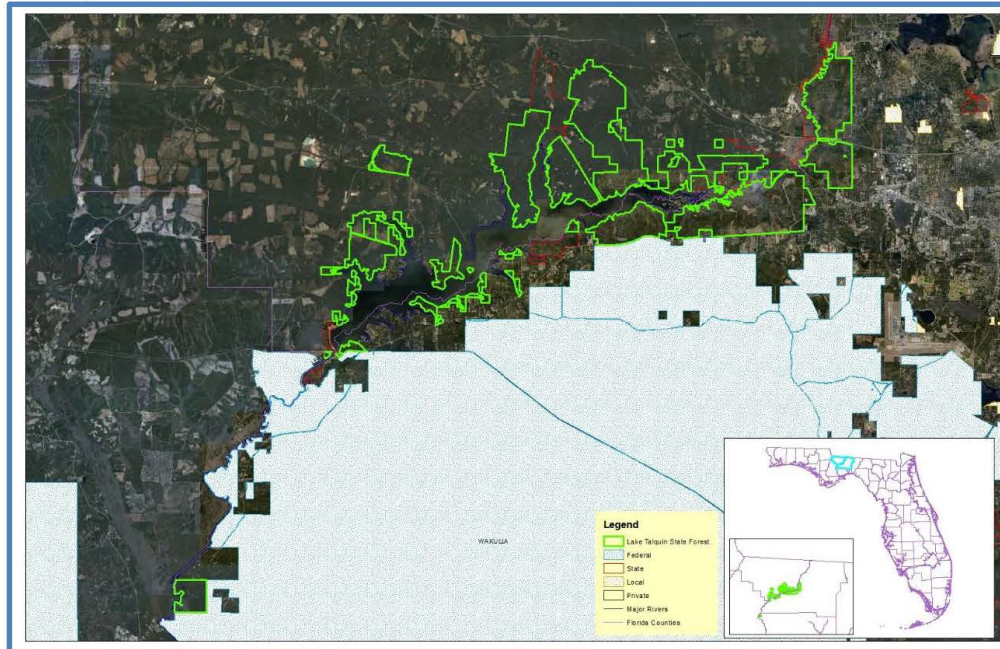
Review Team Members Present (voting)

- DRP: John Bente
- FWC: Diana Pepe
- FFS: Bill Korn
- DEP: Jeanne Williams
- SWCD:
- Local gov't:
- Conservation organization: Scott Copeland
- Private land manager:

Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL
- Aric Larson, DEP/DSL

1.2 Property Map



1.3. Overview of Land Management Review Results

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

Yes = 5, No = 0

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

Yes = 5, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see Appendix A.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.71	4.68
Prescribed Fire / Habitat Restoration	4.33	4.27
Hydrology	3.78	3.77
Imperiled Species	4.30	4.25
Exotic / Invasive Species	4.40	4.30
Cultural Resources	3.88	3.68
Public Access / Education / Law Enforcement	4.49	4.46
Infrastructure / Equipment / Staffing	3.30	N/A

Color Code (See Appendix A for detail)

Excellent	Above Average	Below Average	Poor
-----------	---------------	---------------	------

1.3.1 Consensus Commendations for the Managing Agency

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

1. The team commends the FFS for the Bear Creek Education Center and the programs offered by Mr. Gilpin. (5+, 0-)
2. The team commends the FFS for the prescribed burning program and sandhill/upland pine restoration efforts on those pyrogenic habitat types. The team especially commends FFS for ongoing history of achieving a high percentage of growing season burns – this accomplishment surpasses most state forest efforts within the state. (5+, 0-)
3. The team commends the FFS for maintaining the high level of cooperation with FWC and Gadsden County in managing roads, signage, public visitation, and resource management in general. (5+, 0-)
4. The team commends FFS and FWC's cooperative efforts to improve law enforcement at this forest. (5+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

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

There were no consensus recommendations proposed by the team members.

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. **Natural Communities, specifically upland hardwood forest, floodplain forest (alluvial forest), mesic flatwoods, sandhill, floodplain swamp, bottomland forest, baygall, wet flatwoods, basin swamp, depression marsh and swamp lake:**
2. **Listed Species Protection and Preservation, specifically animals and plants:**
3. **Natural Resources Survey/Monitoring Resources, specifically fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring:**
4. **Cultural Resources, specifically protection and preservation:**
5. **Prescribed Fire, specifically area being burned, frequency and quality:**
6. **Forest Management, specifically timber inventory, timber harvesting, reforestation/afforestation and site preparation:**
7. **Non-Native, Invasive & Problem Species, specifically plants, animals and pests/pathogens prevention and control:**
8. **Hydrological/Geologic function Hydro-Alteration, specifically roads and culverts, ditches and dams, reservoirs or other impoundment:**
9. **Resource Protection, specifically boundary survey, gates and fencing, signage and law enforcement presence:**
10. **Adjacent Property Concerns, specifically inholdings and additions:**
11. **Public Access and Education, specifically roads, parking and boat access:**
12. **Environmental Education & Outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities and management of visitor impacts:**
13. **Management Resources, specifically sanitary facilities and buildings:**

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team

requiring remediation. The management plan update should include information on how these items have been addressed:

1. The maintenance condition of the Natural Communities, specifically upland pine forest, received a below average score. The review team is asked to evaluate, based on their perspective, what percent of the natural community is in maintenance condition. The scores range from 1 to 5, with 1 being 0-20% in maintenance condition, 2 being 21-40%, 3 being 41-60%, 4 being 61-80% and 5 being 81-100%.

Managing Agency Response:

Current and completed restoration projects in upland pine and sandhill communities exceed 2,000 acres on LTSF. The FFS recognizes that given the extensive degradation in the upland pine forest at the time of acquisition, much work remains to bring this community into maintenance condition. The FFS will continue to engage in these efforts as frequently as funding will allow. Additionally, many of the most degraded areas could be reclassified from upland pine to an altered cover type, given the disturbance from past land uses. The FFS will consider a reclassification of these sites to an altered landcover type (FNAI Exhibit 2) that more aptly identifies the site, and would result in an increased score.

2. Management Resources, specifically staff and funding, received below average scores. The review team is asked to evaluate, based on information provided by the managing agency, whether management resources are sufficient.

Managing Agency Response:

Additional staff and funding would indeed benefit management of LTSF, particularly with regard to natural community and ground cover restoration. The FFS will continue to utilize, to the greatest possible efficiency and effect, the resources allocated each year through the legislative budget process.

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Upland Pine Forest	I.A.1	1	2	2	2	2				1.80
Upland Hardwood Forest	I.A.2	5	5	5	5	5				5.00
Floodplain Forest (Alluvial Forest)	I.A.3	4	5	5	5	5				4.80
Mesic Flatwoods	I.A.4	4	5	5	4	5				4.60
Sandhill	I.A.5	4	4	4	4	4				4.00
Floodplain Swamp	I.A.6	5	5	5	5	4				4.80

Bottomland Forest	I.A.7	5	5	5	5	4				4.80
Baygall	I.A.8	5	5	5	5	4				4.80
Wet Flatwoods	I.A.9	5	5	4	5	5				4.80
Basin Swamp	I.A.11	5	5	5	5	4				4.80
Depression Marsh	I.A.12	4	4	4	4	4				4.00
Swamp Lake	I.A.13	4	5	5	5	5				4.80
Natural Communities Average Score										4.42
Listed species:Protection & Preservation (I.B)										
Animals	I.B.1	4	4	4	5	5				4.40
Plants	I.B.2	4	4	3	5	5				4.20
Listed Species Average Score										4.30
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	3	3	5	3				3.60
Other non-game species or their habitat monitoring	I.C.3	3	3	4	5	4				3.80
Fire effects monitoring	I.C.4	5	5	4	5	5				4.80
Other habitat management effects monitoring	I.C.5	5		4	5	5				4.75
Invasive species survey / monitoring	I.C.6	5		4	5	5				4.75
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4		3	4	3				3.50
Protection and preservation	II.B	5		3	4	5				4.25
Cultural Resources Average Score										3.88
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	4				4.80
Frequency	III.A.2	5	5	5	5	5				5.00
Quality	III.A.3	5	5	5	4	5				4.80
Resource Management, Prescribed Fire Average Score										4.87
Restoration (III.B)										
Upland Pine Restoration	III.B.1	3	4	4	4	4				3.80
Restoration Average Score										3.80
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	5	5	5				5.00
Timber Harvesting	III.C.2	5	5	5	5	5				5.00
Reforestation/Afforestation	III.C.3	X	5	5	5	5				5.00
Site Preparation	III.C.4	X	5	5	5	5				5.00
Forest Management Average Score										5.00
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	5	5	5	5	5				5.00
prevention - animals	III.D.1.b	4	4	3	5	4				4.00
prevention - pests/pathogens	III.D.1.c	4	3	5	5	5				4.40
Control										
control - plants	III.D.2.a	5	5	4	5	5				4.80
control - animals	III.D.2.b	3	4	3	5	5				4.00

control - pest/pathogens	III.D.2.c	4	3	4	5	5				4.20
Non-Native, Invasive & Problem Species Average Score										4.40
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	4	4	4	5				4.40
Ditches	III.E.1.b	5	4	5	4	5				4.60
Dams, Reservoirs or other impoundments	III.E.1.e	4	4	3	4	5				4.00
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.33
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a		3	3	4	4				3.50
Ground Water Monitoring Average Score										3.50
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	4	3	3	4	X				3.50
Surface water quantity	III.F.3.b	4	3	3	4	X				3.50
Surface Water Monitoring Average Score										3.50
Resource Protection (III.F)										
Boundary survey	III.F.1	5	4	4	3	5				4.20
Gates & fencing	III.F.2	5	4	4	4	5				4.40
Signage	III.F.3	5	4	4	3	5				4.20
Law enforcement presence	III.F.4	5	4	5	5	5				4.80
Resource Protection Average Score										4.40
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a	4	4		3	4				3.75
Inholdings/additions	III.G.2	5	3		3	5				4.00
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	4	5	4	5				4.60
Parking	IV.1.b	5	4	4	4	5				4.40
Boat Access	IV.1.c	5	3	4	4	5				4.20
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	4	5	5				4.60
Invasive Species	IV.2.b	5	4	4	5	5				4.60
Habitat Management Activities	IV.2.c	5	5	4	5	5				4.80
Interpretive facilities and signs	IV.3	4	4	5	5	5				4.60
Recreational Opportunities	IV.4	5	5	5	5	5				5.00
Management of Visitor Impacts	IV.5	5	5	4	5	3				4.40
Public Access & Education Average Score										4.58
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	5	3	3	4	3				3.60
Sanitary facilities	V.1.b	5	3	3	4	5				4.00
Infrastructure										
Buildings	V.2.a	4	4	4	4	4				4.00

Equipment	V.2.b	3	3	3	4	3				3.20
Staff	V.3	2	2	3	3	4				2.80
Funding	V.4	1	2	2	3	3				2.20
Management Resources Average Score										3.30

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing
Vote

Insufficient
Information

See
Appendix A
for detail

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

1. **Managed area uses proposed in the management plan, specifically equestrian campground, received below average scores. This is an indication that the management plan does not sufficiently address to what degree the proposed use is consistent with purposes for which property was acquired and other restrictions.**

Managing Agency Response:

The FFS agrees that the proposed uses could be discussed in more detail. This will be addressed in the next management plan.

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Upland Pine Forest	I.A.1	5	4	5	5	5				4.80
Upland Hardwood Forest	I.A.2	5	4	5	5	5				4.80
Floodplain Forest (Alluvial Forest)	I.A.3	5	3	5	5	5				4.60
Mesic Flatwoods	I.A.4	4	5	5	5	5				4.80
Sandhill	I.A.5	5	4	5	5	5				4.80
Floodplain Swamp	I.A.6	4	5	5	5	5				4.80
Bottomland Forest	I.A.7	5	5	5	5	5				5.00
Baygall	I.A.8	5	5	5	5	5				5.00
Wet Flatwoods	I.A.9	5	4	5	5	5				4.80
Basin Swamp	I.A.11	5	5	5	5	5				5.00
Depression Marsh	I.A.12	4	3	5	5	5				4.40

Swamp Lake	I.A.13	5	5	5	5	5				5.00
Natural Communities Average Score										4.82
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	4	3		5	5				4.25
Plants	I.B.2	4	3		5	5				4.25
Listed Species Average Score										4.25
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	4	3	3	5	4				3.80
Other non-game species or their habitat monitoring	I.C.3	3	3	3	5	4				3.60
Fire effects monitoring	I.C.4	5	4	4	5	5				4.60
Other habitat management effects monitoring	I.C.5	5		4	5	5				4.75
Invasive species survey / monitoring	I.C.6	5		4	5	5				4.75
Cultural Resources (Archeological & Historic sites) (II.A,II.B)										
Cultural Res. Survey	II.A	5	3	3	4	3				3.60
Protection and preservation	II.B	5		3	4	3				3.75
Cultural Resources Average Score										3.68
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	4	4	5	5				4.60
Frequency	III.A.2	5	4	4	5	5				4.60
Quality	III.A.3	5	4	4	4	5				4.40
Resource Management, Prescribed Fire Average Score										4.53
Restoration (III.B)										
Upland Pine Restoration	III.B.1	5	3	3	5	4				4.00
Restoration Average Score										4.00
Forest Management (III.C)										
Timber Inventory	III.C.1	5	4	4	5	5				4.60
Timber Harvesting	III.C.2	5	4	4	5	5				4.60
Reforestation/Afforestation	III.C.3		4	4	5	5				4.50
Site Preparation	III.C.4		4	4	5	5				4.50
Forest Management Average Score										4.55
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.E.1.a	5	3	3	5	5				4.20
prevention - animals	III.E.1.b	5	3	3	5	5				4.20
prevention - pests/pathogens	III.E.1.c	5	3	3	5	5				4.20
Control										
control - plants	III.E.2.a	5	4	3	5	5				4.40
control - animals	III.E.2.b	5	4	3	5	5				4.40
control - pest/pathogens	III.E.2.c	5	4	3	5	5				4.40
Non-Native, Invasive & Problem Species Average Score										4.30
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.F.1.a	5	3	3	5	5				4.20

Ditches	III.F.1.b	5	3	3	5	5				4.20
Dams, Reservoirs or other impoundments	III.F.1.e	5	3	3	5	5				4.20
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.20
Ground Water Monitoring (III.E.2)										
Ground water quality	III.F.2.a		3	3	4	4				3.50
Ground Water Monitoring Average Score										3.50
Surface Water Monitoring (III.E.3)										
Surface water quality	III.F.3.a	4	3	3	4	4				3.60
Surface water quantity	III.F.3.b	4	3	3	4	4				3.60
Surface Water Monitoring Average Score										3.60
Resource Protection (III.F)										
Boundary survey	III.G.1	5	4	3	5	5				4.40
Gates & fencing	III.G.2	5	4	4	5	5				4.60
Signage	III.G.3	5	4	4	5	5				4.60
Law enforcement presence	III.G.4	5	3	4	5	5				4.40
Resource Protection Average Score										4.50
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.H.1.a	5	4		5	4				4.50
Inholdings/additions	III.H.2	5	4		5	5				4.75
Discussion of Potential Surplus Land Determination	III.H.3	5	4		5	4				4.50
Surplus Lands Identified?	III.H.4	5	4	4	5	5				4.60
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	4	3	5	5				4.40
Parking	IV.1.b	5	4	3	5	5				4.40
Boat Access	IV.1.c	5	3	3	5	5				4.20
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	3	5	5				4.40
Invasive Species	IV.2.b	5	4	3	5	5				4.40
Habitat Management Activities	IV.2.c	5	4	3	5	5				4.40
Interpretive facilities and signs	IV.3	5	4	3	5	5				4.40
Recreational Opportunities	IV.4	5	4	4	5	5				4.60
Management of Visitor Impacts	IV.5	5	4	4	5	5				4.60
Public Access & Education Average Score										4.42
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Hiking	VI.A.1	5	5	5	5	5				5.00
Horseback Riding	VI.A.2	5	5	5	5	5				5.00
Off-road Bicycling	VI.A.3	4	5	5	5	5				4.80
Nature Study	VI.A.4	5	5	5	5	5				5.00
Hunting	VI.A.5	5	5	5	5	5				5.00
Fishing	VI.A.6	5	5	5	5	4				4.80

Birdwatching	VI.A.7	5	5	5	5	3				4.60
Primitive Camping	VI.A.8	5	5	5	5	4				4.80
Proposed Uses										
Equestrian Campground	VI.B.1		1	2	3	1				1.75
Color Code:		Excellent	Above Average		Below Average		Poor		See Appendix A for detail	
			Missing Vote		Insufficient Information					

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

2019 Land Management Review Team Report for Lake Talquin State Forest

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1. Introduction

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

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

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

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

1.1. Property Reviewed in this Report

Name of Site: Lake Talquin State Forest

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

Acres: 11,039

Counties: Leon, Gadsden

Purpose(s) for Acquisition: To conserve, protect, manage and restore important ecosystems, landscapes and forests, especially if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, recreational, timber, or fish and wildlife resources which cannot otherwise be accomplished through local and state regulatory programs.

Acquisition Program(s): P2000/Florida Forever

Original Acquisition Date: 10/18/73

Area Reviewed: Entire Property

Last Management Plan Approval Date: 2/24/2011

Review Date: 7/17/19

Agency Manager and Key Staff Present:

- Ryan Slyter, Manager
- Chris Colburn
- Randall Gregory

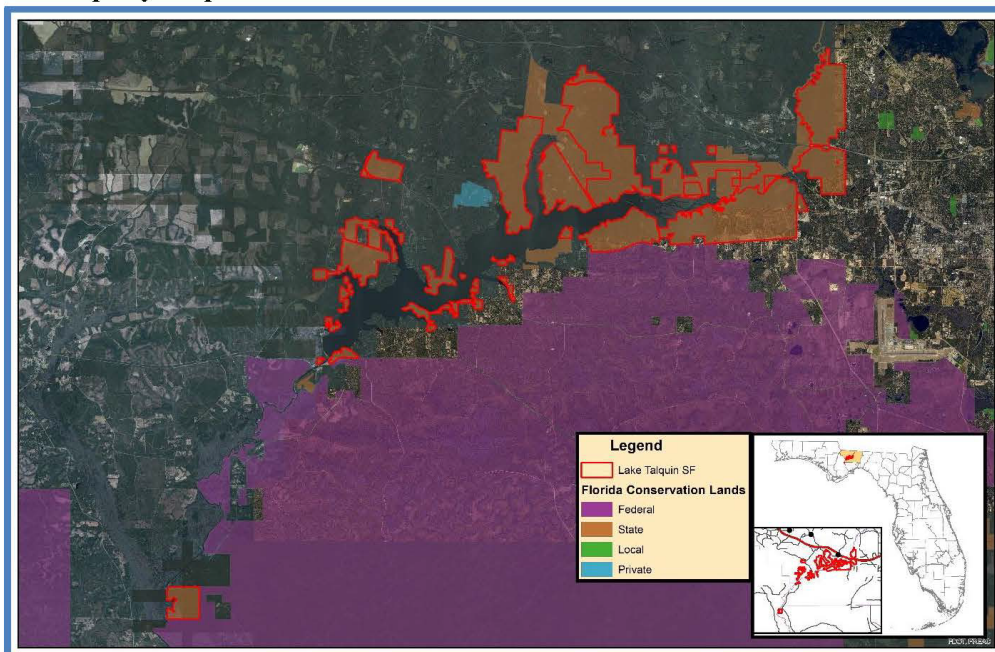
Review Team Members Present (voting)

- Daryl Hatfield, DRP District
- Sherry Carpenter, Local Gov't.
- Diana Pepe, FWC
- Mark Gillman, DEP District
- Heather Schmiede, FFS
- Tyler Macmillan, NFWFMD
- Scott Copeland, Cons. Organization
- Private Land Manager, None

Other Non-Team Members Present (attending)

- Keith Singleton, DEP/DSL
- Linda King, FWC
- Jason O'Donoghue, DHR
- Brandon Ackermann, DHR

1.2 Property Map



1.3. Overview of Land Management Review Results

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

Yes = 7, No = 0

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

Yes = 7, No = 0

Table 1 shows the average scores received for each applicable category of review. *Field Review* scores refer to the adequacy of management actions in the field, while *Management Plan Review* scores refer to adequacy of discussion of these topics in the management plan. Scores range from 1 to 5 with 5 signifying excellence. For a more detailed key to the scores, please see *Appendix A*.

Table 1: Results at a glance.

Major Land Management Categories	Field Review	Management Plan Review
Natural Communities / Forest Management	4.60	4.64
Prescribed Fire / Habitat Restoration	4.86	4.67
Hydrology	4.62	4.41
Imperiled Species	4.14	3.83
Exotic / Invasive Species	4.62	4.44
Cultural Resources	4.36	4.08
Public Access / Education / Law Enforcement	4.68	4.52
Infrastructure / Equipment / Staffing	4.31	N/A
Color Code (See Appendix A for detail)		
Excellent	Above Average	Below Average
		Poor

1.3.1 Consensus Commendations for the Managing Agency

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

1. The team commends the Florida Forest Service (FFS) for the improvements and educational programs being provided at Bear Creek. (7+, 0-)
2. The team commends the FFS for participation in Operation Outdoor Freedom. (7+, 0-)
3. The team commends the FFS for continued progress restoring upland pine and sandhill communities. (7+, 0-)
4. The team commends the FFS for the excellent prescribed burning program, consistently achieving annual objectives. (7+, 0-)
5. The team commends the FFS for their timber harvest and reforestation program. (7+, 0-)

1.3.2. Consensus Recommendations to the Managing Agency

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

There were no consensus recommendations.

2. Field Review Details

2.1 Field Review Checklist Findings

The following items received high scores on the review team checklist, which indicates that management actions exceeded expectations.

1. Natural communities, specifically upland pine forest, upland hardwood forest, alluvial forest, floodplain swamp, bottomland forest, basin swamp, and swamp lake.
2. Listed species, plants and animals in general.
3. Natural resource survey/monitoring resources, listed species or their habitat monitoring, other non-game species or their habitat monitoring, fire effects monitoring, other habitat management effects monitoring, and invasive species survey and monitoring.
4. Cultural resources, specifically, cultural resource survey and protection and preservation.
5. Resource management (prescribed fire), specifically area being burned, frequency, and quality.
6. Restoration, specifically upland pine restoration.
7. Forest management, specifically timber inventory, timber harvesting, reforestation/afforestation, and site preparation.
8. Non-native, invasive, and problem species, specifically prevention and control of plants, animals, and pest/pathogens.
9. Hydrologic/geologic function, specifically roads/culverts, and dams, reservoirs or other impoundments.
10. Ground water monitoring, specifically quality.
11. Surface water monitoring, specifically quality, and quantity.
12. Resource protection, specifically boundary survey, gates and fencing, signage, and law enforcement presence.
13. Adjacent property concerns, land use, specifically expanding development, and inholdings and additions.
14. Public access, specifically roads, parking, and boat access.
15. Environmental education and outreach, specifically wildlife, invasive species, habitat management activities, interpretive facilities and signs, recreational opportunities, and management of visitor impacts.
16. Management resources, specifically waste disposal, sanitary facilities, buildings, equipment, staff, and funding.

2.2. Items Requiring Improvement Actions in the Field

The following items received low scores on the review team checklist, which indicates that management actions noted during the Field Review were not considered sufficient (less than 3.0 score on average). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The management plan update should include information on how these items have been addressed:

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

2.3. Field Review Checklist and Scores

Field Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										

Upland Pine Forest	I.A.1	4	4	4	4	4	4	4		4.00
Upland Hardwood Forest	I.A.2	5	5	5	5	5	4	5		4.86
Floodplain Forest (Alluvial Forest)	I.A.3	5	5	5	5	5	5	5		5.00
Mesic Flatwoods	I.A.4	3	4	4	4	4	4	4		3.86
Sandhill	I.A.5	3	4	4	4	4	3	4		3.71
Floodplain Swamp	I.A.6	5	5	5	5	5	4	5		4.86
Bottomland Forest	I.A.7	5	5	5	5	5	4	5		4.86
Baygall	I.A.8	5	5	5	5	5	5	5		5.00
Wet Flatwoods	I.A.9	3	4	3	4	4	3	4		3.57
Basin Swamp	I.A.10	5	5	5	5	5	5	5		5.00
Depression Marsh	I.A.11	3	4	4	3	3	4	3		3.43
Swamp Lake	I.A.12	5	5	5	5	5	4	5		4.86
Natural Communities Average Score										4.42
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	5	4	4	4	4	3	5		4.14
Plants	I.B.2	5	4	4	4	4	3	5		4.14
Listed Species Average Score										4.14
Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	5	5	5	4	4	4	5		4.57
Other non-game species or their habitat monitoring	I.C.3	5	5	4	4	4	4	5		4.43
Fire effects monitoring	I.C.4	5	5	5	5	5	5	5		5.00
Other habitat management effects monitoring	I.C.5	5	5	4	4	5	4	5		4.57
Invasive species survey / monitoring	I.C.6	5	5	5	5	4	5	5		4.86
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	4	5	4	4	4	5		4.29
Protection and preservation	II.B	5	4	5	4	4	4	5		4.43
Cultural Resources Average Score										4.36
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	5	5	5	5	5	5		5.00
Frequency	III.A.2	5	4	5	5	5	5	5		4.86
Quality	III.A.3	5	4	5	5	5	4	5		4.71
Resource Management, Prescribed Fire Average Score										4.86
Restoration (III.B)										
Upland Pine Restoration	III.B.1	5	5	5	5	5	4	5		4.86
Restoration Average Score										4.86
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	5	5	4	5	5		4.86
Timber Harvesting	III.C.2	5	5	5	5	4	4	5		4.71
Reforestation/Afforestation	III.C.3	5	5	5	5	5	4	5		4.86
Site Preparation	III.C.4	5	5	5	5	4	4	5		4.71
Forest Management Average Score										4.79
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.D.1.a	5	5	5	4	4	4	5		4.57

prevention - animals	III.D.1.b	5	5	5	4	4	4	5		4.57
prevention - pests/pathogens	III.D.1.c	5	5	3	5	4	4	5		4.43
Control										
control - plants	III.D.2.a	5	5	5	5	5	4	5		4.86
control - animals	III.D.2.b	5	5	5	4	5	4	5		4.71
control - pest/pathogens	III.D.2.c	5	5	4	4	5	4	5		4.57
Non-Native, Invasive & Problem Species Average Score										4.62
Hydrologic/Geologic function Hydro-Alteration (III.E.1)										
Roads/culverts	III.E.1.a	5	5	5	5	5	4	5		4.86
Dams, Reservoirs or other impoundments	III.E.1.e	5	4		5	5	5	5		4.83
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.85
Ground Water Monitoring (III.E.2)										
Ground water quality	III.E.2.a	5	4	5	4	4	4	5		4.43
Ground Water Monitoring Average Score										4.43
Surface Water Monitoring (III.E.3)										
Surface water quality	III.E.3.a	5	4	5	4	5	4	5		4.57
Surface water quantity	III.F.3.b	5	4	5	4	5	4	5		4.57
Surface Water Monitoring Average Score										4.57
Resource Protection (III.F)										
Boundary survey	III.F.1	5	5	5	5	4	4	5		4.71
Gates & fencing	III.F.2	5	5	4	5	4	4	5		4.57
Signage	III.F.3	5	5	4	4	4	4	5		4.43
Law enforcement presence	III.F.4	5	5	5	5	4	4	5		4.71
Resource Protection Average Score										4.61
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.G.1.a	5	5	4	4	5	4	5		4.57
Inholdings/additions	III.G.2	5	5	4	4	5	4	4		4.43
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	5	5	4	4	4	5		4.57
Parking	IV.1.b	5	5	5	4	4	4	4		4.43
Boat Access	IV.1.c	5	5	5	4	4	4	5		4.57
Environmental Education & Outreach										
Wildlife	IV.2.a	5	5	5	5	5	5	5		5.00
Invasive Species	IV.2.b	5	5	5	5	4	4	5		4.71
Habitat Management Activities	IV.2.c	5	5	5	5	5	5	5		5.00
Interpretive facilities and signs	IV.3	5	5	5	5	4	5	5		4.86
Recreational Opportunities	IV.4	5	5	5	5	4	5	5		4.86
Management of Visitor Impacts	IV.5	5	5	5	5	4	4	5		4.71
Public Access & Education Average Score										4.75
Management Resources (V.1, V.2, V.3, V.4)										
Maintenance										
Waste disposal	V.1.a	5	5	5	4	5	4	5		4.71

Sanitary facilities	V.1.b	4	5	5	4	5	4	5		4.57
Infrastructure										
Buildings	V.2.a	4	5	4	3	4	4	5		4.14
Equipment	V.2.b	5	5	4	3	3	4	5		4.14
Staff	V.3	4	5	5	3	3	4	5		4.14
Funding	V.4	5	5	5	3	3	3	5		4.14
Management Resources Average Score										4.31
Color Code:		Excellent	Above Average		Below Average		Poor		See Appendix A for detail	
			Missing Vote		Insufficient Information					

3. Land Management Plan Review Details

3.1 Items Requiring Improvements in the Management Plan

The following items received low scores on the review team checklist, which indicates that the text noted in the Management Plan Review does not sufficiently address this issue (less than 3.0 score on average.). Please note that overall good scores do not preclude specific recommendations by the review team requiring remediation. The next management plan update should address the checklist items identified below:

The review team scores did not identify items requiring improvement in the management plan.

3.2 Management Plan Review Checklist and Scores

Plan Review Item	Reference #	Anonymous Team Members								Average
		1	2	3	4	5	6	7	8	
Natural Communities (I.A)										
Upland Pine Forest	I.A.1	5	4	5	4	5	5			4.67
Upland Hardwood Forest	I.A.2	5	4	5	4	5	5			4.67
Floodplain Forest (Alluvial Forest)	I.A.3	5	4	5	4	5	5			4.67
Mesic Flatwoods	I.A.4	5	4	5	4	5	5			4.67
Sandhill	I.A.5	5	4	5	4	5	5			4.67
Floodplain Swamp	I.A.6	5	4	5	4	5	5			4.67
Bottomland Forest	I.A.7	5	4	5	4	5	5			4.67
Baygall	I.A.8	5	4	5	3	5	5			4.50
Wet Flatwoods	I.A.9	5	4	5	4	5	5			4.67
Basin Swamp	I.A.10	5	4	5	4	5	5			4.67
Depression Marsh	I.A.11	5	4	5	4	5	5			4.67
Swamp Lake	I.A.12	5	4	5	4	5	5			4.67
Natural Communities Average Score										4.65
Listed species: Protection & Preservation (I.B)										
Animals	I.B.1	5	4	4	3	3	4			3.83
Plants	I.B.2	5	4	4	3	3	4			3.83
Listed Species Average Score										3.83

Natural Resources Survey/Management Resources (I.C)										
Listed species or their habitat monitoring	I.C.2	5	4	4	3	4	5			4.17
Other non-game species or their habitat monitoring	I.C.3	5	4	4	3	4	4			4.00
Fire effects monitoring	I.C.4	5	4	4	3	5	5			4.33
Other habitat management effects monitoring	I.C.5	5	4	4	3	4	4			4.00
Invasive species survey / monitoring	I.C.6	5	4	5	4	4	5			4.50
Cultural Resources (Archeological & Historic sites) (II.A, II.B)										
Cultural Res. Survey	II.A	4	4	4	4	4	4			4.00
Protection and preservation	II.B	5	4	4	4	4	4			4.17
Cultural Resources Average Score										4.08
Resource Management, Prescribed Fire (III.A)										
Area Being Burned (no. acres)	III.A.1	5	4	5	4	5	5			4.67
Frequency	III.A.2	5	4	5	5	5	5			4.83
Quality	III.A.3	5	4	4	4	5	5			4.50
Resource Management, Prescribed Fire Average Score										4.67
Restoration (III.B)										
Upland Pine Restoration	III.B.1	5	4	5	4	5	5			4.67
Restoration Average Score										4.67
Forest Management (III.C)										
Timber Inventory	III.C.1	5	5	4	4	5	5			4.67
Timber Harvesting	III.C.2	5	5	4	4	5	5			4.67
Reforestation/Afforestation	III.C.3	5	5	4	4	5	4			4.50
Site Preparation	III.C.4	5	5	4	4	5	5			4.67
Forest Management Average Score										4.63
Non-Native, Invasive & Problem Species (III.D)										
Prevention										
prevention - plants	III.E.1.a	5	4	4	4	5	5			4.50
prevention - animals	III.E.1.b	5	4	4	4	5	5			4.50
prevention - pests/pathogens	III.E.1.c	5	4	3	4	5	5			4.33
Control										
control - plants	III.E.2.a	5	4	4	4	5	5			4.50
control - animals	III.E.2.b	5	4	4	4	5	5			4.50
control - pest/pathogens	III.E.2.c	5	4	3	4	5	5			4.33
Non-Native, Invasive & Problem Species Average Score										4.44
Hydrologic/Geologic function, Hydro-Alteration (III.E.1)										
Roads/culverts	III.F.1.a	5	4	5	3	5	5			4.50
Dams, Reservoirs or other impoundments	III.F.1.e	5	4		4	5	5			4.60
Hydrologic/Geologic function, Hydro-Alteration Average Score										4.55
Ground Water Monitoring (III.E.2)										
Ground water quality	III.F.2.a	5	4	4	3	5	4			4.17
Ground Water Monitoring Average Score										4.17
Surface Water Monitoring (III.E.3)										

Surface water quality	III.F.3.a	5	4	5	4	5	4			4.50
Surface water quantity	III.F.3.b	5	4	5	4	5	4			4.50
Surface Water Monitoring Average Score										4.50
Resource Protection (III.F)										
Boundary survey	III.G.1	5	4	5	5	5	5			4.83
Gates & fencing	III.G.2	5	4	4	3	5	4			4.17
Signage	III.G.3	5	4	3	3	5	5			4.17
Law enforcement presence	III.G.4	5	4	5	4	5	5			4.67
Resource Protection Average Score										4.46
Adjacent Property Concerns (III.G)										
Land Use										
Expanding development	III.H.1.a	5	4	4	4	5	4			4.33
Inholdings/additions	III.H.2	5	4	3	5	5	5			4.50
Discussion of Potential Surplus Land Determination	III.H.3	5	4	4	3	5	5			4.33
Surplus Lands Identified?	III.H.4	5	4	5	5	5	5			4.83
Public Access & Education (IV.1, IV.2, IV.3, IV.4, IV.5)										
Public Access										
Roads	IV.1.a	5	4	5	3	5	5			4.50
Parking	IV.1.b	5	4	5	3	4	5			4.33
Boat Access	IV.1.c	5	4	5	3	5	5			4.50
Environmental Education & Outreach										
Wildlife	IV.2.a	5	4	5	4	5	5			4.67
Invasive Species	IV.2.b	5	4	5	4	5	5			4.67
Habitat Management Activities	IV.2.c	5	4	5	4	5	5			4.67
Interpretive facilities and signs	IV.3	5	4	5	5	5	5			4.83
Recreational Opportunities	IV.4	5	4	5	5	4	5			4.67
Management of Visitor Impacts	IV.5	5	4	4	4	4	5			4.33
Public Access & Education Average Score										4.57
Managed Area Uses (VI.A, VI.B)										
Existing Uses										
Hiking	VI.A.1	5	5	5	5	5	5	5		5.00
Horseback Riding	VI.A.2	5	5	5	3	4	4	5		4.43
Off-road Bicycling	VI.A.3	5	5	3	4	4	3	5		4.14
Nature Study	VI.A.4	5	5	5	5	5	5	5		5.00
Hunting	VI.A.5	5	5	5	5	5	5	5		5.00
Fishing	VI.A.6	5	5	5	5	5	5	5		5.00
Birdwatching	VI.A.7	5	5	5	5	5	5	5		5.00
Primitive Camping	VI.A.8	5	5	5	5	4	5	5		4.86
Apiaries	VI.A.9	5	5	3	5	4	2	5		4.14
Proposed Uses										
Equestrian Campground	VI.B.1	5	5	3	3	3	4	5		4.00

Color Code:

Excellent

Above
Average

Below
Average

Poor

Missing
Vote

Insufficient
Information

See
Appendix A
for detail

Appendix A: Scoring System Detail

Explanation of Consensus Commendations:

Often, the exceptional condition of some of the property's attributes impress review team members. In those instances, team members are encouraged to offer positive feedback to the managing agency in the form of a commendation. The teams develop commendations generally by standard consensus processes or by majority vote if they cannot obtain a true consensus.

Explanation of Consensus Recommendations:

Subsection 259.036(2), F.S., specifically states that the managing entity shall consider the findings and recommendations of the land management review. We ask team members to provide general recommendations for improving the management or public access and use of the property. The teams discuss these recommendations and develop consensus recommendations as described above. We provide these recommendations to the managing agency to consider when finalizing the required ten-year management plan update. We encourage the manager to respond directly to these recommendations and include their responses in the final report when received in a timely manner.

Explanation of Field Review Checklist and Scores, and Management Plan Review Checklist and Scores:

We provide team members with a checklist to fill out during the evaluation workshop phase of the Land Management Review. The checklist is the uniform tool used to evaluate both the management actions and condition of the managed area, and the sufficiency of the management plan elements. During the evaluation workshop, team members individually provide scores on each issue on the checklist, from their individual perspective. Team members also base their evaluations on information provided by the managing agency staff as well as other team member discussions. Staff averages these scores to evaluate the overall conditions on the ground, and how the management plan addresses the issues. Team members must score each management issue 1 to 5: 1 being the management practices are clearly insufficient, and 5 being that the management practices are excellent. Members may choose to abstain if they have inadequate expertise or information to make a cardinal numeric choice, as indicated by an "X" on the checklist scores, or they may not provide a vote for other unknown reasons, as indicated by a blank. If a majority of members failed to vote on any issue, that issue is determined to be irrelevant to management of that property or it was inadequately reviewed by the team to make an intelligent choice. In either case staff eliminated the issue from the report to the manager.

Average scores are interpreted as follows:

Scores 4.0 to 5.0 are *Excellent*

Scores 3.0 to 3.99 are *Above Average*

Scores 2.0 to 2.99 are *Below Average*

Scores 1.0 to 1.99 are considered *Poor*

Exhibit T

Compliance with Local Comprehensive Plans
Gadsden, Leon, Liberty, and Wakulla Counties

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

October 16, 2023

Gadsden County Planning Division
9-B East Jefferson Street
P.O. Box 1799
Quincy, Florida 32353
(850) 875-8663
Growthdevelopment@gadsdencountyfl.gov

To Whom It May Concern:

Greetings from the Florida Forest Service! Attached is a draft copy of the Ten-Year Land Management Plan and Exhibits for Lake Talquin State Forest, prepared in accordance with Chapter 253.034, Florida Statutes. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Gadsden County's Comprehensive Plan.

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

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

Sincerely,

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

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

October 16, 2023

Tallahassee-Leon County Planning Department
435 N. Macomb Street
Tallahassee, Florida 32301
(850) 891-6400
Planning@talgov.com

To Whom It May Concern:

Greetings from the Florida Forest Service! Attached is a draft copy of the Ten-Year Land Management Plan and Exhibits for Lake Talquin State Forest, prepared in accordance with Chapter 253.034, Florida Statutes. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Leon County's Comprehensive Plan.

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

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

Sincerely,

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

FLORIDA FOREST SERVICE
(850) 681-5800



THE CONNER BUILDING
3125 CONNER BOULEVARD
TALLAHASSEE, FLORIDA 32399-1650

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
COMMISSIONER WILTON SIMPSON

October 16, 2023

Liberty County Board of County Commissioners
P.O. Box 399
Bristol, Florida 32321
(850) 643-5404

To Whom It May Concern:

Greetings from the Florida Forest Service! Attached is a draft copy of the Ten-Year Land Management Plan and Exhibits for Lake Talquin State Forest, prepared in accordance with Chapter 253.034, Florida Statutes. Please review the draft plan at your earliest convenience and reply as to whether the plan is consistent with Liberty County's Comprehensive Plan.

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

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

Sincerely,

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



October 24, 2023

Emily Marsh
State Lands Management Planner
Florida Forest Service
Florida Department of Agriculture and Consumer Services
3125 Conner Blvd.
Tallahassee, Florida 32399

Re: Ten-Year Land Management Plan - Talquin State Forest

Ms. Marsh,

**BOARD OF
COUNTY COMMISSIONERS**

Ralph Thomas
Chairman, District 1

Quincee Messersmith
Vice-Chair, District 4

Fred Nichols
District 2

Mike Kemp
District 3

Charles Hess, Ph.D.
District 5

J. David Edwards
County Administrator

Heather J. Encinosa
County Attorney
(850) 224-4070

Thank you for the opportunity to review the Ten-Year Land Management Plan for the Talquin State Forest of which a portion exists within the jurisdictional boundaries of Wakulla County. After reviewing the Management Plan, Wakulla County has determined the Land Management Plan to be consistent with the Wakulla County Comprehensive Growth Management Plan.

At this time, Wakulla County has not identified any concerns nor has any comments related to the Land Management Plan. Please feel free to contact me if you have any additional questions.

Thank you,

Somer Pell
Assistant County Administrator
of Community Development

Exhibit U

State Forest Management Plan Advisory Group Summary

Management Plan Advisory Group Public Hearing
Lake Talquin State Forest
10-Year Land Management Plan

September 27, 2023

10:30 A.M.

Meeting Minutes

MPAG Members Present:

- | | |
|--------------------------------|---|
| • Chris Colburn | Tallahassee Forestry Center (TFC) Manager, Florida Forest Service (FFS) |
| • Benjamin Faure | Northwest Florida Water Management District |
| • David Nicholson | Representing Justin VanGorder with Florida Fish and Wildlife Commission |
| • Ricky Lackey | National Wild Turkey Federation |
| • Sam McCall | Local Property Owner |
| • Bill Stinson | Local Property Owner |
| • Commissioner Christian Caban | Leon County Elected Official |

MPAG Members Not Present:

- | | |
|--------------------------|--|
| • Tabitha Frazier | Leon County Soil and Water Conservation District |
| • Commissioner Ron Green | Gadsden County Elected Official |

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Ryan Slyter | Forestry Supervisor II |
| • Emily Marsh | State Lands Management Planner |

Guests:

- Mark Alexander
- Matt Conislio
- Leatha Flowers
- Jacob Fortunas
- Sharon Haughton
- Devin Martins
- Maria Morales
- Joyce Papp
- Wendy Trawick
- Linda Vause

Public Meeting Start Time: 10:30 A.M.

- Land Planning Coordinator, Alan Davis (FFS) opened the meeting by introducing himself and explained the purpose and statutory framework for the Lake Talquin State Forest 10-Year Land Management Plan process. He explained that the Plan is not an annual work plan or detailed operational plan but provides general and conceptual guidance for management of Lake Talquin State Forest (LTSF) for the next 10-year period.
- Mr. Davis confirmed compliance with the Florida Sunshine Law advising MPAG members to not discuss the draft outside of the public meetings. He stated that the meetings are open to the public, recorded, and minutes taken.

- Mr. Davis stated that both MPAG meetings are open to the public and proper notice was given. The meetings were advertised to the public in the Tallahassee Democrat on August 31, 2023, in the Florida Administrative Register on September 15, 2023, FFS webpage, as well as posted at the kiosks on LTSF. The meetings were announced at the Leon County Commissioners meeting on September 12, and at the Gadsden County Commissioners meeting on September 19, 2023. He noted that the draft plan goes through various approvals before and after the MPAG meetings but that the FFS Director is granted final authority on changes to the draft plan. He described the day's two meetings: The first meeting is informational and provides opportunity for public comment; the 1:00 p.m. Workshop meeting provides opportunity for the MPAG members to discuss the public input and to share their personal comments on the draft plan. The public is welcome to attend the Workshop, but participation is limited to MPAG members.
- Mr. Davis then requested MPAG Member introductions and attendance was taken.
- Mr. Davis asked the advisory group to elect an MPAG chairperson. Chris Colburn was elected to serve as chairperson.
- Mr. Davis reiterated the purpose of this meeting is to receive public input which would be later discussed in the Workshop.
- Mr. Davis then introduced Forestry Supervisor Ryan Slyter who presented a PowerPoint presentation of the 10-Year Plan. A member of the public asked what qualifies something as an archeological resource. Mr. Camposano provided the definition of an archeological resource. Mr. Davis asked if there were any clarifying questions regarding the presentation. Mr. Fortunas inquired about any challenges or obstacles FFS encounters regarding meeting some of the goals stated in the presentation. Mr. Davis explained that any challenges faced are due to personnel and available funding resources. Mr. Colburn stressed that they are lucky to have various resources to tap into within FFS to be able to accomplish goals and day-to-day duties on LTSF.
- Mr. Davis asked if there are any further questions.
- Mr. Davis transitioned to presenting the submitted Speaker/Comment Forms. Ms. Flowers appreciates the ongoing efforts of FFS and the partnership between FFS and the Southern Trailriders Association (STA). As a 50+ year resident of Ft. Braden, Ms. Flowers presented a Wish List on behalf of the STA for FFS to consider regarding the improvement of the equestrian community's experience and safety on LTSF. Specifically, concerns about being pushed out by the mountain biking community within the Leon County boundaries of LTSF, and concerns regarding lack of signage directing users to trailheads and existing service roads to provide additional equestrian riding options within the Ft. Braden Tract. Ms. Flowers requested signage suggesting equestrian routes on Joe Budd Tract. Ms. Flowers requested signage for recreational users on the North Ochlockonee Tract to increase the number of visitors. Ms. Flowers also requested a connecting trail from the Ft. Braden Tract across Coe Landing Road into the Hwy 20, Lake Talquin Tract to expand the riding mileage onto the service roads. Also requested was a connecting trail from Joe Budd Tract to the Rocky Comfort Tract. Ms. Flowers also requests a connecting trail from the Lines Tract to access a significant tract of land within a current Florida Forever project. Lastly, Ms. Flowers requested gravel not be used on trails due to damage and danger to horses.
- Mr. Fortunas, representing the Tallahassee and Leon County Planning Department, requested increased access for hiking and biking, particularly within the North and South Ochlockonee Tracts and the Hwy 20 Tract on LTSF. Increased access would help increase educational and conservation opportunities. Mr. Fortunas also represents the Tallahassee Mountain Biking Association (TMBA). Mr. Fortunas stated that TMBA is advocating for better single tract trail options in the North and South Ochlockonee Tracts and Hwy 20 Tract. These hiking and biking trails would be relatively low impact and would not require significant maintenance after initial installation and would be highly compatible with nearby conservation areas. Enhanced access as well as increasing the presence of a new user group on LTSF would be beneficial to the state forest. Mr. Fortunas supported Ms. Flowers' suggestion in a connecting trail across Coe Landing Road. Mr. Fortunas does not advocate a trail that would welcome hikers, bikers, *and* equestrian riders; rather, a tract that runs parallel to the trail for equestrian riders due to trail erosion concerns.

- Mr. Alexander supported Mr. Fortunas' proposals with no further comment.
- Mr. Conislio supported Mr. Fortunas' proposals. Mr. Conislio also announced that TMBA has weekly board meetings in which FFS and any members of the public are welcome to attend.
- Mr. Davis asked if there were any more questions or comments from the public. Ms. Flowers stated that the Ft. Braden Trail was initially designated for equestrian use only. Hiking was added to the trail at a later date. Ms. Flowers stated the dangers of bike riders to equestrian riders due to biking speed. Ms. Flowers' concerns stem from a safety perspective, rather than an attempt to exile the biking community. Ms. Flowers disagrees on Mr. Fortunas' statement about road erosion due to equestrian use. Ms. Flowers has observed erosion can occur from bikers, specifically due to the quantity of bikers, and should be considered moving forward.
- Mr. Alexander stated that he understands that the plan is to have the Lines Tract allow for equestrian use but does not believe this to be ideal. Due to personal past use and previous maintenance done on the tract, equestrian use would make this challenging for the biking community. Mr. Alexander offered to help clear off tract and if it will be open to horseback riding.
- Ms. Flowers stated that they have been out at the Lines Tract scouting and helping with maintaining the trail.
- An STA member stressed that they are trying to work with the TMBA community, not against them.
- Mr. Davis then thanked everyone for participating and adjourned the public hearing portion of the meetings.

Public Meeting End Time: 11:23 A.M.

Management Plan Advisory Group Workshop Meeting
Lake Talquin State Forest
10-Year Land Management Plan

September 27, 2023

1:00 P.M.

Meeting Minutes

MPAG Members Present:

- | | |
|-------------------|---|
| • Chris Colburn | Tallahassee Forestry Center (TFC) Manager, Florida Forest Service (FFS) |
| • Benjamin Faure | Northwest Florida Water Management District |
| • David Nicholson | Representing Justin VanGorder with Florida Fish and Wildlife Commission |
| • Ricky Lackey | National Wild Turkey Federation |
| • Sam McCall | Local Property Owner |
| • Bill Stinson | Local Property Owner |

MPAG Members Not Present:

- | | |
|--------------------------------|--|
| • Commissioner Christian Caban | Leon County Elected Official |
| • Commissioner Ron Green | Gadsden County Elected Official |
| • Tabitha Frazier | Leon County Soil and Water Conservation District |

FFS Staff:

- | | |
|-------------------|--|
| • Alan Davis | Land Planning Coordinator |
| • Brian Camposano | Forest Management Assistant Bureau Chief |
| • Ryan Slyter | Forestry Supervisor II |
| • Emily Marsh | State Lands Management Planner |

Guests:

- Leatha Flowers
- Joyce Papp

Workshop Meeting Start Time: 1:00 P.M.

- Land Planning Coordinator, Alan Davis introduced himself and opened the LTSF MPAG Workshop. He reminded the MPAG members of the Florida Sunshine law and that the purpose of the workshop is to review and discuss the draft and that any edits made to the draft would be presented to the FFS Director for approval. He noted that minutes will be recorded and emailed to the MPAG members and will be approved via negative response review. MPAG member appointment will terminate when the final draft is submitted to the Acquisition Restoration Council. Forestry Supervisor II Ryan Slyter was available to make proposed changes to the draft during the page-by-page review.
- Mr. Davis requested that if any MPAG members had comments regarding the public hearing conducted earlier that they be addressed when we reached the part of the draft LMP it pertained to during the page-by-page process.
- Page 4: Mr. Stinson observed that the project known output archeological resources and restore, maintain, and protect hydrological resources was not listed in the past accomplishments section. Mr. Stinson inquired if these were new goals in the plan. Mr. Davis stressed that the listed past accomplishments are what has been accomplished since the last plan. Mr. Colburn confirmed that these are not new goals, and that only the main accomplishments are captured within the plan as opposed to every individual accomplishment. Mr. Colburn

further confirmed that archeological resources are monitored annually. Mr. McCall inquired what happens to the wild hogs after they have been captured and removed from the property. Mr. Colburn relayed that the hogs are destroyed. Mr. Lackey observed that prescribed burning was significantly lower during Fiscal Year 2019-2020 but was later compensated in the following fiscal years. Mr. Lackey inquired if extra staff was needed to complete those subsequent burns or if the same crew was utilized. Mr. Slyter confirmed that it was the same crew. Mr. Lackey inquired the annual acreage goal for prescribed burning on LTSF. Mr. Slyter relayed 2,500 to 3,800 acres is the goal, but they have been burning 3,200 acres the last couple of years. Mr. Lackey inquired if raising the goal, given the stellar year in 2021, while utilizing the same staff is feasible. Mr. Slyter agrees that more burning will occur due to the stands falling within the fire regime. FFS does not want to adjust the fire regime too much. Mr. Colburn added that Mr. Lackey's question is common, and that FFS will strive to burn more acres. However, such language is not recommended to avoid pigeonholing the staff to that updated acreage goal; should it be difficult for the staff to achieve. Mr. Lackey inquired if the plan has the goal of 3,200 acres already listed. Mr. Colburn confirms that goal acreage is listed in the plan, as well as more detail is explained within each community type. Mr. Lackey encourages FFS to burn as much as they can. Mr. Davis confirmed no changes made to Page 4.

- Page 5: Mr. Stinson, while referencing Goal 2, stated that counting visitors need to be more accurate. Mr. Stinson noted the sign that references day use fees, but there is no place to deposit the money, which makes tracking visitors inaccurate. Thus, Mr. Stinson is unsure how LTSF staff are tracking the number of visitors. Mr. Stinson stresses that getting accurate numbers are important. Mr. Camposano explained that counting visitors is a fluid process; that day use fees, camping fees, etc. are all purchased online through the camping reservation system as one way to track visitors. Traffic counters on different main roads within the state forests that are rotated annually are also used to count visitors. FFS tracks hunters, camping stays, etc. There is a lot of data that the State Recreation Coordinator, Bin Wan, uses for tracking. Bin Wan actually has a PHD in Recreation Management; specifically, he went to school and learned how to manage people and manage visitors and so he has a very formulaic, reputable way to accurately track the number of visitors for not just LTSF, but for all of our state forests. The numbers will never be completely accurate, but the way we are doing it now allows us to be consistent. Mr. Stinson inquired if FFS means to say there is no reason to have an entrance kiosk at the forest. Mr. Colburn confirmed the sign in, and fee collection strategies have never been accurate data. Mr. Faure expressed that it is a very labor-intensive strategy to have a volunteer count the number of visitors. It is time consuming, and it depends on how much the staff can commit to it. Mr. Davis reiterate that while the conversation is good to have, the purpose of this meeting is to suggest changes to the plan to keep within time. Mr. Stinson observed there are no reports online of the annual liaison meetings, and wanted to know if these meetings were occurring. Mr. Slyter confirmed these meetings occur on an annual basis and minutes are recorded during said meetings. Mr. Stinson strongly suggests for these minutes to be posted online. Mr. Davis stressed that a copy of the minutes is housed locally. Mr. Davis suggests that staff can help Mr. Stinson obtain a copy of those meeting minutes.
- Page 7: Mr. Stinson inquired if the number of acres restored under Goal 3, Objective 4 is different from the number of acres where restoration measures were taken. Did staff plant something but later died? Mr. Slyter confirmed that failed planting has occurred before but is rare. In those cases, the staff tries again. Mr. Faure inquired if staff plants wiregrass. Mr. Colburn responded that they rarely plant wiregrass. Mr. Colburn clarified that this objective relates to restoration using prescribed burning. The measure listed is often blurry, and that is where the Land Management Reviews come in to clarify the measures; when they ask what percentage of our forests is in maintenance condition. That is oftentimes a direct reflection of prescribed burning.
- Page 11: Mr. Colburn recommended to remove language regarding Girl Scouts of Gateway Council. The sublease is expired.
- Page 14: Mr. Stinson observed that under current staffing should read "a permanent, appropriately credentialed staff member for the educational center for serious educational efforts" should replace OPS staff language. Mr. Davis confirmed with Mr. Colburn that this is current staffing. Mr. Colburn explained that OPS Park Rangers are not assigned to Bear Creek Educational Forest. They manage the forests through duties such as cleaning and changing garbage. Mr. Stinson relayed that he will bring up his previous statement elsewhere

in the plan. Mr. McCall, under Additional Land Needs, suggested language to be inserted regarding recommendations to DEP or Florida Forever acquisitions to take in consideration of endangered plants and species. Mr. Davis explained that the information is observed in the Optimal Boundary Map, but at the same time, to acquire land specifically for that, we're looking for lands that help facilitate management and also that that comes with that. Because it is not a detailed operational plan, Mr. McCall's suggested language is not necessarily needed here just because it is conceptual. FFS and DEP discuss the protection of endangered plants and species when acquiring property. Florida Forever projects do have their own write-ups per project, and some of that language is incorporated into those projects. Mr. McCall inquired if FFS makes recommendations to DEP. Mr. Davis confirms this to be true. Additionally, there is a management prospectus, per every Florida Forever Project, and some of those T&E species Mr. McCall referenced to are called out in those project descriptions. Mr. McCall observed the highest ranking of species listed in the table is a G3. The property he owns, which is close to a property near Hammock Creek has Chapmans rhododendron, has some plant species that have a G1S1 rating; the highest rating of federal plants can have which appears that FFS imported their acquisition of most endangered plants then that would be helpful to observing species that you may not ever see again if it is destroyed. Mr. Davis agreed and clarified that the table's data came from The Florida Natural Areas Inventory (FNAI) or if FFS observes a species, it is then incorporated into that Endangered Species Table. Mr. McCall expressed that there are adjoining properties with G1 ratings. Mr. Davis stated that this is something that FFS reports to FNAI and asks FNAI if they can FFS help identify those species on FFS property.

- Page 15: Mr. McCall observed that there are conflicting adjacent land uses; namely an increase in mining adjacent to LTSF in South Gadsden County. Mr. McCall mentioned Crowder and a new Bear Creek mine (Bear Creek Mining) and that the individual who owns Twin Springs recently applied or received approval for a sand mine on his property. On property that Mr. McCall owns, an individual applied for a sand mine in which Mr. McCall objected because it is within the Chapmans rhododendron protection zone. With more mining occurring, there is less of an opportunity to do what you want to do, and once it's mined, it's gone forever. Mr. McCall further stressed that there are conflicting adjacent land uses present. Mr. Colburn suggested to pull language used in other state forest land management plans that do have conflicting adjacent land uses related to mining.
- Page 17: Mr. Stinson observed that the 2014 Land Management Review is 10 years out of date, and that the review process appears to be too pristine. Mr. Davis explained that these reviews are done every five years and are facilitated through FDEP, and the dates are like this because these reviews are done on DEP's schedule. LTSF is due for another review in the near future, but it is in five-year increments and based on DEP's schedule, not FFS's. The Land Management Reviews listed in the Exhibits are the most current reviews within this 10-Year planning interval. Mr. Stinson expressed that he does not know how these reviews are conducted but has concerns about the scoring throughout. Scores are almost too perfect except for one area which makes it appear as if an actual evaluation was not completed, and only utilized the staff's observations. Mr. Slyter clarified that there is a review panel that does come out to the forests to conduct these reviews. Mr. Davis asked Mr. Stinson if his questions had been answered, which Mr. Stinson denied. Mr. Stinson continued to stress that the report appears to make it sound like everything is perfect, and no more improvements are needed, which sounds doubtful to Mr. Stinson. Mr. Davis stated that because he was not present at the 2014 or 2019 Land Management Review, that he cannot specifically speak to that review, but there is another one scheduled soon. Mr. Camposano stressed that there is a member from each agency that constitutes as the review panel and gives FFS an honest evaluation of what they think through calculations and weighted averages. The individuals on the panel who makes their recommendations remain anonymous. Mr. Stinson digressed.
- Page 20: Mr. Stinson inquired about FFS's input regarding septic tanks related to maintaining water resources. Mr. Davis requested clarification. Mr. Stinson stated that counties set regulations, best management practices, or questions about proximity of septic tanks to one of the feeder streams. Mr. Davis stated he is not familiar with the permitting process but is certain there are conditions that must be met for septic tanks. Mr. Faure stated that a lot of this falls under the jurisdiction of the Water Management District, as well as, establishing goals like best management practices; like what is being done in the Wakulla County with the Spring Bay system in trying to convert septic to sewer. He is certain that sewer systems have not yet been establish in the area.

Mr. Davis agreed and stated that if you do not have a sewer system in place, then you have to have a septic tank. Mr. Stinson expressed that in some areas in Gadsden County, they have been converted to a tertiary treatment septic tank that was required for new construction around the lake. Mr. Colburn stated that we cannot address any of that in the plan. Mr. McCall stated that in his discussions with Gadsden County Planning and Zoning, you cannot have a septic tank if you are below certain water levels of the lake.

- Page 22: Mr. Nicholson observed in Table 5 of a repeated mammals section. Duplicated section is to be deleted. Mr. Nicholson also inquired if the Chapmans rhododendron extends to any of LTSF property. FFS said no.
- Page 24: Mr. Faure noted that this page addressed some of Mr. McCall's questions about the acquisitions. Mr. Colburn inquired if Mr. McCall's property falls within the Optimal Management Boundary Map. Ms. Marsh provided Mr. McCall a copy of the Optimal Boundary Map. Mr. McCall confirmed that his property does reside within the Optimal Boundary.
- Page 25: Mr. McCall asked why there are food plots and if they are specifically for hunters. FFS confirmed that they are specifically for Operation Outdoor Freedom (OOF) and for hunters. FFS stated that food plots also improve wildlife.
- Page 27: Mr. Stinson inquired if the Gopher Tortoise language means to say that there no Gopher Tortoises found or Bear Creek or if FFS was thinking of moving them but decided not to due to lack of information. Mr. Camposano clarified that the statement is a statutory requirement for all of our plans effective July 2022. FFS is required to assess the feasibility. For LTSF, FWC reached out to FFS to assess the status of the area. There are probably a few areas that FFS can become some recipient sites that will not conflict with FFS' primary objectives with management and might be a little deficient on the number of Gopher Tortoises. At the moment, FFS is attempting to identify potential suitable land that FFS tries to establish Gopher Tortoise Recipient Sites on should that need arise. Mr. Colburn agreed and stated that the sampling in the plan does not refer to the Bear Creek Tract. FFS knows that there are Gopher Tortoises within the Bear Creek Tract. The sampling was originally done on the Joe Budd Tract.
- Page 31: Mr. Davis addressed the public comment regarding the planned activities subsection under the recreation section for trails. Mr. Davis inquired the MPAG members if there was specific language, they would like to include in the plan based on the public comment addressed previously about establishing more trails. Mr. Faure inquired if the Lines Tract was the tract dedicated to equestrian use specifically. Mr. Colburn clarified that it was the Ft. Braden Tract that was designated for equestrian use. Mr. Colburn acknowledged the STA's wish list. Signage concerns can be addressed in the annual action plan without having to be in the 10-Year Land Management Plan. Furthermore, if something is not in plan(s) does not mean that it will not or cannot be accomplished. Mr. Camposano expressed FFS's understanding, on a recreational and agency level, of the demand for additional trails, access, utilization, and that is something FFS is very cognizant of. Mr. Camposano advised that FFS must be cautious in where these trails are established, especially after what was heard today regarding horses and bikes on these trails. So, we must be thoughtful about how we plan for those things, and we have to think about the amount of staffing and resources that are in place. We may be willing to put in certain trail heads or facilities, but it is a question of what staffing, and resources are currently in place to manage these new establishments. We must be sure that we would be able to manage these proposals before they are to be established. Trails are easy to maintain daily as opposed to a campground. Mr. Camposano reiterated that there are the ten-year plans, which are required by law; the five-year plan, which is when FFS looks into requests for funding, and the annual one-year operational plan. Mr. Camposano cautioned against using language that is stronger than "consideration for", because if the plan goes to the Division Director and he is uncomfortable committing us to those resources right now, then it may be kept within the plan but as a consideration. Mr. Stinson inquired if there is a growing demand for trails. Mr. Camposano expressed that the pandemic has increased the demand for more trails. FFS explicitly lists initiatives in the plan that FFS will do and has funding for. Otherwise, this does give FFS the capability in going back and add to the plan at a later date. Mr. Colburn inquired if the panel has addressed everything in the public comment regarding trails. The plan does address the Lines Tract and assessing the needs and feasibility because there is more due diligence needed before FFS completes that initiative. Mr. Colburn stated that it is strong enough that if FFS decides it is feasible, there is an exhibit in place that would allow FFS to proceed without going through an ARC amendment.

Regarding the cyclists' public comment about assessing the need and feasibility for some trails on the North and South Ochlockonee and Lines Tracts. Mr. Stinson corrected that it was the Hwy 20 Tract, not the Lines Tract the cyclists were referring to. Mr. Colburn stated that the cyclists were satisfied with the plans to the Lines Tract. An MPAG member inquired if language should be inserted stating "assess the need and feasibility for additional multi-use cycling trails in the North Ochlockonee, South Ochlockonee and Hwy 20 Tracts"? Mr. Stinson suggested stating, generally, without naming the tracts; something that would reflect that the demand increases the priority of this initiative. Mr. Colburn confirmed that this would still be covered by the objectives, and just because it says to assess the need and feasibility does not mean that we are committed to it and that we have to do it. It just means that we heard what the public said, and we are willing to take a look at it. Mr. Davis commented that it leaves the door open. Mr. Camposano stated that if there is a demand for it from all different directions, then that will motivate FFS to get a project together. Mr. Lackey inquired where the funding comes from. Mr. Colburn stated that funding comes from requests on annual basis from legislative allotments. Mr. Lackey inquired if funding is from appropriated dollars. Mr. Colburn confirmed this to be true. Mr. Camposano added that there are donors to the Friends of Florida that have specified those funds to go to the state forests. Mr. Lackey inquired if funding comes from timber money. Mr. Camposano stated that timber money goes back into the big pot that gets appropriated each year. Mr. Lackey inquired if that is just a portion of the appropriated amount. Mr. Camposano confirmed to be true. Mr. Faure inquired about the consideration of adding another paragraph about the other two (2) tracts. Mr. Colburn inquired if one of the recreation short-term goals already covers that language. Mr. Davis confirmed that it does. Until there are specifics, FFS can do a plan amendment at a later date. This leaves the door open in the ten-year plan without having to specifically say what went where. Mr. Faure suggested mentioning assessing of needs and feasibility to avoid having to do an amendment at a future date. Mr. Davis commented that an amendment would have to be completed if an initiative is not specifically addressed. Mr. Colburn understood Mr. Faure's stance and stated that if initiatives, such as ground disturbing activities are stated within the plan and do not have a corresponding exhibit which shows the topography, the impact of resources, like stream crossing, then it is not typically addressed in the plan specifically; rather, the plan mentions such initiative in general terms. Mr. Davis once again asked the MPAG members if they agree to the general language on Page 31 and reiterated that the door is still open; the language does not prevent FFS from doing anything; it just does not lay out exactly what FFS will do during the ten-year planning period because FFS do not know that yet. If it comes up again later down the road, it can be addressed during that time. Mr. Davis asked if there are any proposed changes that anyone would like to see. Mr. Stinson commented that he would like to see a word incorporated eluding to "growing demand" to keep this concept within conversation. Mr. Davis suggested the following "single recommendations of recreation will be considered throughout the planning period". Mr. Lackey suggested adding the language "based on demand and the end of the sentence". Mr. Colburn pointed out that "based on demand" language is mentioned in the first sentence of the first paragraph. Mr. Camposano stated that that language is written in all FFS ten-year land management plans. For an example, our Croom Motorcycle area in Withlacoochee gets all kinds of demand, but they don't think they can take more people; so, we're not necessarily going to try to grow that place in order to prevent reaching the carrying capacity. FFS is looking at the demand based on where the numbers of people are, because if the numbers keep growing and the calls keep coming in, then they are going to have to let them in; because otherwise, we are not being good stewards of the land. Mr. Stinson inquired if we should say something about working with interest groups, with the stakeholders who were talking about these recreation recommendations. Though the plan does not sound restrictive, it does respond to what people want. Mr. Davis, again, reiterated that the current language in the plan is not meant to serve as a response, rather, it leaves the door open for future recommendations. Mr. Camposano added that budgetary concerns must also be considered. Mr. Colburn mentioned that having the Liaison Committee is a good outlet for working out these types of considerations and serves as a starting point for those conversations. Mr. Davis inquired if the members are comfortable with the language on page 31.

- Page 32: Mr. McCall inquired the effect of horses and bikes on wildlife, such as bear and turkey, deer and eagles with horses and bikes being in their habitats. Additionally, Mr. McCall inquired how the bikes and horses effect hunting. Mr. Colburn stated that for the Wildlife Management Areas (WMAs), FFS and FWC work together

regarding hunting regulations. Joe Budd is the only WMA that Lake Talquin State Forest has, and therefore all recreation uses other than hunting is prohibited on Joe Budd during hunting season. However, Joe Budd is an area that has a very limited hunt due to quota and specific designated weekends. Mr. Stinson inquired if someone could bring in their horse trailer during hunting season. Mr. Colburn stated no, and no other recreation activities are allowed, except for hunting, during hunting season. In other WMAs, this is not a rule, rather highly encouraged and is discussed annually with FWC with rule changes. If FFS receives a lot of feedback about user conflicts, it is addressed during that period of discussions with FWC. Mr. Stinson inquired if there are major effects to wildlife if there are mountain bikes and horses where hunting does occur and if the animals are compatible or if they leave the area. Mr. Nicholson stated that patterns may change, but hunting can have the same impact as horses and bikes, so generally, they are fairly compatible. If you have an extremely high use area, it will change patterns, but it is not anticipated to see that kind of change on Lake Talquin State Forest. Mr. Colburn added that he has observed deer and other wildlife move into an area where they were harvesting timber with loud equipment happening every day. Mr. Davis, Mr. Nicholson, and Mr. Colburn all agreed that the animals become accustomed to these activities. Mr. Camposano explained that the language is written in a way that does prioritize one initiative, such as recreation, over the other (hunting). FFS must be as open and accommodating as possible to all recreation types. If we prevent one group from their recreational experience, be it hunting or otherwise, that user group will surely have some complaints to FFS. Mr. McCall believed language "highly encouraged" would be better but settled for the current language already in place. Mr. Stinson inquired about an analogous sentence under Education tying back to the Trails section related to partnerships with bikers and equestrian user groups. Mr. Davis stated that the language about the Liaison Committee covers that language. Mr. Stinson stated the language comes off as FFS is working independently, and not consulting other agencies in making choices, but under the Education section, FFS is speaking about partnerships. Mr. Davis suggested adding language geared towards the Liaison Committee. Mr. Camposano suggested the language "we encourage public comment or participation through the Liaison Panel meetings". Mr. Colburn suggested language "FFS may create partnerships with volunteer groups". MPAG members decided to insert the following language: "FFS encourages public participation with the liaison group meetings / partnerships with recreational user groups in support of the forest's recreation goals" under the Recreation section.

- Page 33: Mr. Nicholson suggested adding language that reads "with an emphasis on growing season burns as applicable" at the top of the page. Mr. Camposano agreed with language addition. Mr. Colburn originally suggested to back off strong language to avoid painting FFS into a corner; however, Mr. Nicholson's suggestion would not bind FFS to a specific initiative. MPAG members agreed to add in "as applicable" language. Mr. Stinson stated that the plan talks about more burning, but the past accomplishments reflect the goal had already been met. Mr. Lackey explained that fire return intervals are set based on historical patterns. The goals are set within a specific timeframe, or even at a lower target, but FFS is always trying to surpass and overachieve said goals. Mr. Slyter explained that a 2-to-4-year fire interval can be set, but some stands may be burned in 20 years, and other stands may be burned in 3 years. Then you will have some years like Covid, where stands didn't get burned, and so they are burned in the fourth year, but is a good way for FFS to catch up. Mr. Faure inquired if the language talks about the wildfire prevention program as a means of wildfire reduction. Mr. Lackey stated that on page 34, it states that prescribed burning is a wildfire prevention method.
- Page 37: Mr. Stinson inquired about training in invasive species control. Mr. Stinson requested language inserted about training opportunities for employees. A couple of MPAG members pointed out that some language is already inserted in the last paragraph above the Invasive Species Table. Mr. Camposano stated that there are a lot of foresters that have expressed their interests in learning more about the species found on the forests. Mr. Stinson inquired clarification on species that are listed as stable. Mr. Slyter explained that it depends on what they are noticing within the forest. Mr. Colburn added to Mr. Slyter's statement, that these are cases where FFS has a handle on the control of the species, but reluctant to say that it is decreasing because they know it is invasive and could pop up somewhere else miles away.
- Page 39: Mr. Stinson inquired if recent changes in acres between the historic and current acreage are due to the survey and reclassifying communities as managed community types. Mr. Colburn explained that historic acres represent the communities that were in place prior to European settlement. Mr. Stinson observed that

Sandhill community decreased significantly in size, and if this community was since then, roped in to managed community types. One MPAG member stated that the fire regime can alter the type of communities that could fall under Managed Community Types. Mr. Camposano stated that sometimes the community types are not restored back to its historical acreage. FNAI's earliest aerial photography dates back to the 1950s to get current community types. Mr. Colburn added that FNAI uses other determining factors such as indicator species and soil types to determine the historic and current communities. Mr. Camposano stated that FFS attempts to restore what is restorable. Some communities may not be salvageable. FFS is managing pine plantation communities towards the natural community it should be in, but it is not permanently altered. It is just the current stage of management that it is in. The mapped survey is as accurate as it can possibly be. Mr. Stinson stated that it appears that 8% of the total community is not what it used to be historically and falls under a different category. Mr. Camposano stated that it takes copious amounts of time and money to restore a community back to its historic state. Mr. Stinson inquired how ponds are classified. Mr. Faure noted that they would be classified under communities like Basin Swamp or Basin Marsh. Mr. McCall inquired about the acreage within the table, and if other managed land coverage types needed an extra three (3) asterisks next to the 1,737 acres. Mr. Davis advised that all other managed community types that do not fall under the previous tables are recorded on the following table "Other Managed Land Cover Types".

- Page 51: Mr. Stinson requested a couple of species to be added to the Current Conditions under the Sandhills Community section. Mr. Davis asked if they are currently there. Mr. Stinson said yes. Mr. Colburn expressed that Sand live oak is already listed. Mr. Stinson requested several species that were not listed to be listed. Mr. Slyter placed a comment of the species in the draft document that Ms. Marsh will update to include missing species. Mr. Colburn requested clarification if Mr. Stinson wanted Sand post oak or Post Oak to be listed. Mr. Stinson requested both to be listed. Mr. Camposano stated that if Mr. Stinson has seen those species on the sandhills of the forest, then FFS can list them in the plan. Mr. Davis advised Mr. Slyter to put in a comment regarding the species to be added (Sand post oak, Tuberosa, and Veriegata).
- Page 56: Mr. Stinson requested Fringe tree be listed under current conditions.
- Page 60: Ms. Marsh noted an extra space between paragraphs that need to be deleted.
- Page 10: Mr. Faure noted that there are a few areas on Table 2, such as the Apalachicola National Forest, which the Water Management District manages. Mr. Camposano stated that only the lead managing agencies are listed for this table.
- Mr. Davis asked if there were any questions or comments on the exhibits. None of the MPAG members had suggested changes to the exhibits.
- He then asked each MPAG member to comment on the draft plan. Mr. Colburn appreciated the time each member took to provide their input. Mr. Nicholson stated that the plan is a thorough and well put together plan. Mr. Faure stated that the plan addressed the optimal boundary for water quality and quantity, which is one of the main goals of the Northwest Florida Water Management District, even though it is an impounded system controlled by the dam. It was a good discussion regarding the endangered species and prescribed fire sections. He commented on the Lake Talquin Dam at Bloxham and suggested to consult with DEP regarding the campground's proximity to the Dam, should the campground be placed nearby. He stated for FFS to focus on the prescribed burning goal and emphasis on the growing season burns. Mr. Davis stated that the representative for the local Soil and Water Conservation District is not present and transitioned to Mr. Lackey. Mr. Lackey appreciated FFS's work with constrained resources and stressed FFS to prescribe burn and surpass those goals. He also suggested to consider the taxpayer's dollars when considering future infrastructures. Mr. McCall stated that he used to write reports for a living and was impressed by the writing and found no spelling or grammar errors. Though the Gadsden County representative was not present, Mr. McCall expressed his appreciation for the conversation related to the adjacent mining and high biodiversity areas in Gadsden County, as this is an important topic. Mr. McCall agreed with the prescribed burning and a job well done from FFS and is concerned about meeting the needs of the hikers, hunters, bikers, and horseback riders while trying to preserve the land. Mr. Stinson stated that this property is an unusually important place to implement these conservation practices, and get folks to use this state forest recreationally, as well as more of an emphasis on the education to let people know what is happening portion of this state forest. Mr. Stinson agreed on

everyone's comments about the plan being well written. He added that it was very easy to read. He also thanked FFS for their hard work.

- Mr. Davis noted that the draft will be submitted to the Acquisition and Restoration Council for review. Consideration by the Council will likely occur at the February 9, 2024, public meeting.
- Mr. Davis thanked everyone for their time and participation and adjourned the meeting.

Workshop Meeting End Time: 2:36 P.M.

Exhibit V

State Forest Summary Budget

	LAKE TALQUIN STATE FOREST MGT. ONLY 22- 23 EXPENDITURES	Percentages Based on Total Dollar Amount of Expenditures	Assessed Needed Funding Based Upon LMUAC Resource Management
Resource Management	\$ 24,480	23.10%	\$ 90,273.66
Exotic Species Control	\$ 1,703	2.97%	\$ 11,610.02
Prescribed Burning	\$ 13,169	3.37%	\$ 13,169.22
Cultural Resources Management	\$ 40	0.07%	\$ 269.64
Timber Management	\$ 4,572	7.98%	\$ 31,164.56
Hydrological Management	\$ 257	0.45%	\$ 1,754.59
	\$ -		\$ -
OTHER RESOURCE MANAGEMENT	\$ 4,739	8.27%	\$ 32,305.63
Listed Species Management	\$ -		\$ -
Forest Pest and Disease	\$ -		\$ -
Plant Conservation Program	\$ -		\$ -
State Forest Research Projects	\$ -		\$ -
Boundary Surveys for State Forests	\$ -		\$ -
Other Activities Also Include: Liaison Community Meetings / Boundary Line Maintenance / Forest Inventories and Various Other Activities / Wildfire Suppression on State Forests	\$ -		\$ -
			\$ -
Administration	\$ -	7.02%	\$ -
Central Office Headquarters	\$ -		\$ -
District/Regions	\$ -	7.02%	\$ -
Units/Projects	\$ -		\$ -
	\$ -		\$ -
Support	\$ 20,661	36.04%	\$ 140,844.26
Land Management Planning	\$ 1,052	1.84%	\$ 7,174.69
Land Management Reviews	\$ 177	0.31%	\$ 1,207.50
Training/Staff Development	\$ 5,561	9.70%	\$ 37,905.48
Vehicle Purchase	\$ 218	0.38%	\$ 1,484.96
Vehicle Operations and Maintenance	\$ 10,066	17.56%	\$ 68,620.64
	\$ -		\$ -
OTHER SUPPORT	\$ 3,587	6.26%	\$ 24,450.99
State Forest Land Acquisition Support			\$ -
Other Support Activities Also Include: Computer Maintenance / Radio Maintenance / Technical Support / Management of Apiary and Cattle Leases / State Forest Leases, Lease Amendments, Easements and Other Various Activities	\$ -		\$ -
			\$ -
Capital Improvements	\$ 12,075	21.06%	\$ 82,313.51
New Facility Construction	\$ 1,798	3.14%	\$ 12,258.71
Facility Maintenance	\$ 10,277	17.93%	\$ 70,054.80
			\$ -
Visitor Services/Recreation	\$ 7,322	12.77%	\$ 49,914.09
Information/Education	\$ 1,781	3.11%	\$ 12,141.48
Operations	\$ 5,541	9.67%	\$ 37,772.62
			\$ -
Law Enforcement	\$ -	0.00%	\$ -
Total	\$ 57,325.63	100.00%	\$390,778.14

Exhibit W

Arthropod Control Plans

Gadsden, Leon, Liberty, and Wakulla Counties



BOARD OF COUNTY COMMISSIONERS
9-B East Jefferson Street / P. O. Box 1799 • Quincy, Florida 32353
OFFICE: (850) 875-8650 • FAX: (850) 875-8655 • www.GadsdenCountyFl.gov

To whom it may concern,

Due to budgetary and equipment restraints Gadsden County Mosquito Control will not be able to offer routine mosquito surveillance or control methods or measures in the Lake Talquin State Forest.

 5/24/21

Eric Justin

Mosquito Control Director



Leon County

Board of County Commissioners

301 South Monroe Street, Tallahassee, Florida 32301
(850) 606-5300 www.leoncountynfl.gov

Commissioners

RICK MINOR
District 3
Chairman

BILL PROCTOR
District 1
Vice Chairman

JIMBO JACKSON
District 2

BRIAN WELCH
District 4

KRISTIN DOZIER
District 5

CAROLYN D. CUMMINGS
At-Large

NICK MADDOX
At-Large

VINCENT S. LONG
County Administrator

CHASITY H. O'STEEN
County Attorney

May 21, 2021

Ryan Slyter, Forest Supervisor
Tallahassee Forestry Center
Lake Talquin State Forest

Dear Ryan,

As requested, our office has reviewed your request for an Arthropod Control Plan for Lake Talquin State Forest. It has been determined that due to limited resources, Leon County will be unable to provide mosquito control services on these lands.

Please let me know if you have any questions. Thank you.

Sincerely,

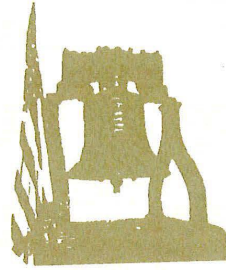
A handwritten signature in black ink, appearing to read "Glen Pourciau".

Glen Pourciau, Director
Leon County Mosquito Control



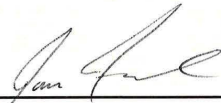
**Liberty County
Board of County Commissioners**

Post Office Box 399
Bristol, Florida 32321
Phone: (850) 643-5404



To whom it may concern,

Liberty County Mosquito Control will not conduct routine mosquito surveillance or any control measures in the Lake Talquin State Forest.

X  5/13/21

Jacob Ford
Mosquito Control Director

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Ron DeSantis
Governor

Scott A. Rivkees, MD
State Surgeon General

Vision: To be the Healthiest State in the Nation

May 24, 2021

Ryan Slyter
Forest Supervisor II
Florida Forest Service
Florida Department of Agriculture and Consumer Services
Ryan.Slyter@fdacs.gov

RE: Arthropod Control for Lake Talquin State Forest

Dear Mr. Slyter,

We have determined that no ACP is necessary for Lake Talquin State Forest.

Douglas O'Connor
Wakulla County Mosquito Control Director
& Environmental Health Aide
48 Oak Street
Crawfordville, FL 32327
Office: (850) 926-0400
Cell: (850) 408-3344
FAX: (850) 926-1938

**Florida Department of Health
in Wakulla County**
48 Oak Street, Crawfordville, FL 32327
PHONE: 850/926-0400 • 850/926-1938
FloridaHealth.gov



PHAB Accredited Health Department
Public Health Accreditation Board

Exhibit X

Lines Tract Trail Plan

Exhibit X

Lines Tract Multi-Use Trail Plan

Introduction

The Lines Tract of Lake Talquin State Forest is located on the far northwest shore of Lake Talquin and has around 8 miles of trail that is currently designated for mountain bikers and hikers, and has a primitive campsite, a vaulted [restroom](#) and a day use pavilion. Since the founding of the Line's Tract trails and campsite, usership has remained low in comparison to other recreational sites within the Forest. Allowing for horseback riders to use the trail in conjunction with the other trail users will allow not only for more use of the trails, but more volunteers to help maintain it.

The plan for Line's Tract is to assess the feasibility of turning the existing bike trails into a multi-use trail system that would allow for horseback riders as well as mountain bikers and hikers to use the trails simultaneously. The plan would be to use the existing trails as much as possible to reduce overall ground disturbance but, would require the installation of two bridges to allow horses to cross two (2) sections of stream. The largest ground disturbing part of the project will be the expansion of the current parking lot to allow for large horse trailers to easily park and turn around. In addition, updated kiosks and signs will need to be made to reflect the changes made to the multi-use trail.

Planned Improvements and Cost Estimates

Parking expansion (lime rock surfacing for 6 pull-through horse trailer slots)	\$2,800
Installation of informational kiosk (2-panel)	\$5,000
Parking lot fencing 300'	\$1,500
Bridges over creek (10 - 4"x 8"x 16', 24 - 1"x 6"x 16' composite, hardware)	\$2,080
Trail markers (painting supplies)	\$400
TOTAL	\$11,780

If this project is approved, funding will be requested from annual appropriations to agency in one or more phases based on priority, feasibility, and demand.

Included in this exhibit are the site layout plan, photos and maps of the site, and a Division of Historical Resources Compliance Form.

Location

The location of the proposed project is 12 miles south of Quincy off Cook's Landing Rd in Gadsden County, FL, in:

- Section 3, Township 01 South, Range 04 West,
- Section 4, Township 01 South, Range 04 West,
- Section 33, Township 01 North, Range 04 West,
- Section 34, Township 01 North, Range 04 West

Ground Disturbing Activities

Ground disturbing activities (GDA) considered major include the expansion of the parking area up to 1 acre in size and the installation of 2 low water crossings or bridges. Minor ground disturbing activities include digging post holes for the installation of the parking lot fence and potential vegetation clearing in some parts of the trail.

Impacted Resources

Current and historic natural communities include sandhill, upland pine, baygall, mesic and wet flatwoods, upland hardwood forests, and bottomland forest. No known listed animal or plant species are within the footprint of the project area.

Water resources:

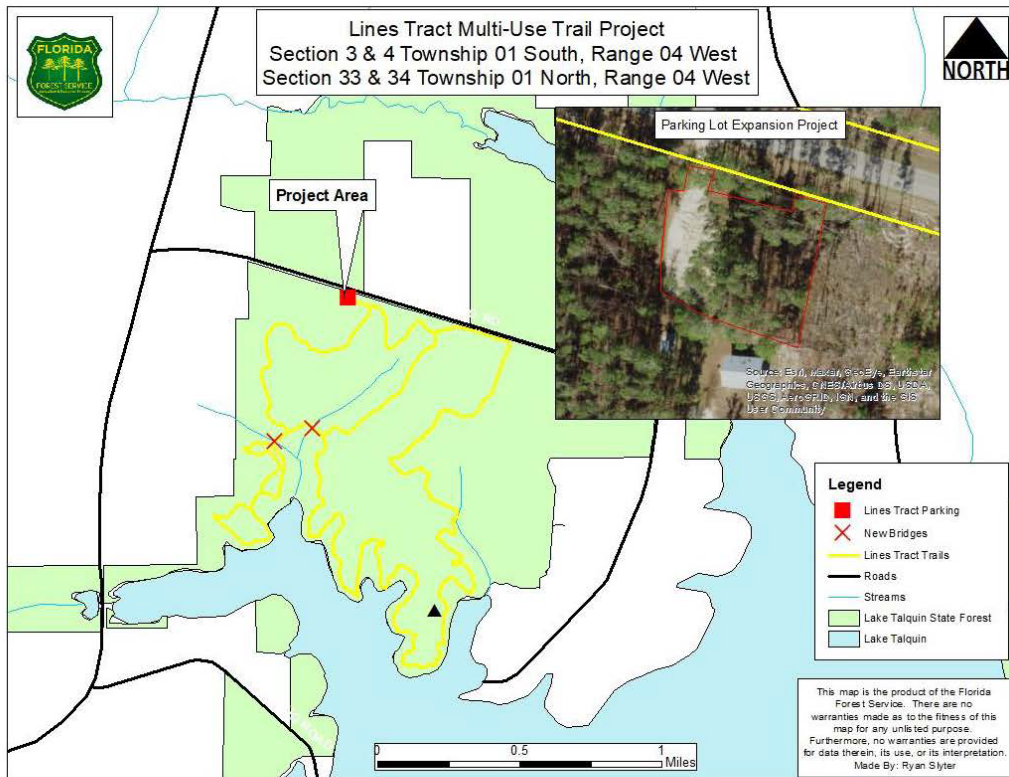
A local stream is located within the project area as well as Lake Talquin south of the trail system.

Cultural/historical resources:

There are no recorded historical resources in the vicinity. Lake Talquin State Forest has Five Archaeological Resource Monitors trained by the Florida Division of Historical Resources for monitoring ground disturbing activities.

Threatened or Endangered Species:

- Animal
 - No known listed plant species are recorded at this site.
- Plant
 - No known listed plant species are recorded at this site.

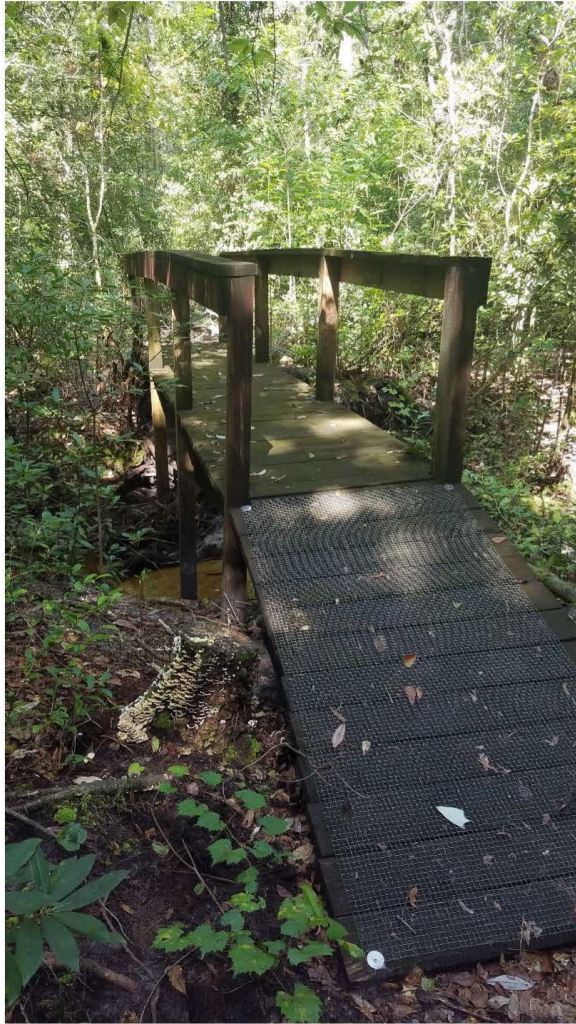




South facing photo of parking lot expansion, Lines Tract, Lake Talquin State Forest.



North facing photo of parking lot expansion, Lines Tract, Lake Talquin State Forest.



Current east bridge, photo taken facing south.



Current west bridge, photo taken south facing.

Exhibit Y

Bloxham Campground Plan

Exhibit Y

Bloxham Campground Plan

Introduction

The Bloxham Tract of Lake Talquin State Forest is about 140 acres on the southwest shore of Lake Talquin, adjacent to the Jackson Bluff Dam. With its proximity to Tallahassee and unique lakefront forest setting, the Bloxham Tract is an attractive site for a campground. It has existing forest roads, a water well, and power on site. Currently the Bloxham Day Use Area on the eastern portion of the Bloxham Tract is available for groups by reservation only and offers a boat ramp with a dock, picnic pavilion, and a house with running water and restrooms. This campground is proposed for the western portion of the tract to provide additional opportunities for public access and recreation.

This plan is for the installation of twelve (12) new primitive campsites, each consisting of a parking pad, fire ring, grill, and picnic table. Campground amenities will include a bathhouse/restroom with septic system, pavilion, canoe/kayak launch and fishing dock. All campsites will have electric hook up and running water except the tent-only sites.

Planned Improvements and Cost Estimates

Installation of underground power and water lines (2,400') <u></u>	\$30,000
Installation of bathhouse pad (plumbing, electrical)	\$15,000
Installation of septic system	\$12,000
Installation of bathhouse (2-shower, 2-toilet)	\$120,000
Campsite access road improvement (lime rock surfacing 2,400') <u></u>	\$12,000
Installation of 12 campsites (12'x 40' parking pads, fire rings, grills, picnic tables)	\$12,000
Installation of pavilion (28'x30')	\$15,000
Installation of informational kiosk (2-panel)	\$3,000
Installation of canoe/kayak launch/fishing dock	\$20,000
TOTAL	\$239,000

If this project is approved, funding will be requested from annual appropriations to the agency in one or more phases based on priority, feasibility, and demand.

Included in this exhibit are the site layout plan, photos and maps of the site, and a Division of Historical Resources Compliance Form.

Location

The proposed campground site is just off SR 20, about fifteen miles west of Tallahassee in Leon County, FL, in the SW ¼ of the SW ¼ of Section 16, Township 01 South, Range 04 West.

30.389411, -84.643788 USNG 16RGU2639064292

Ground Disturbing Activities

Ground disturbing activities considered major are for trench digging for underground water and power lines along the existing forest roads, and for the installation of a septic system. Minor ground disturbing activities include digging post holes for the installation of the pavilion, kiosk and dock. Other GDA include vegetation removal and surface stabilization for the campsite access road and parking pads. The campsite areas (minimum 12' x 24') adjacent to the parking pads will be cleared of vegetation where a campfire ring, grill, and picnic table will be placed.

Impacted Resources

Current and historic natural communities include upland pine and upland hardwood forests, which at this location occur approximately ten to twelve feet in elevation above the lake. Much of the site was disturbed during the construction of the Jackson Bluff Dam in the early 1930's when the site was used for housing workers. Since then most of the infrastructure was removed and the site reverted as successional hardwood with scattered pine. The understory consists of oak regeneration and various shrub and vine species. Existing roads will be used to access campsites, but understory vegetation and some trees will be removed for the installation of campsites and other infrastructure.

Water resources:

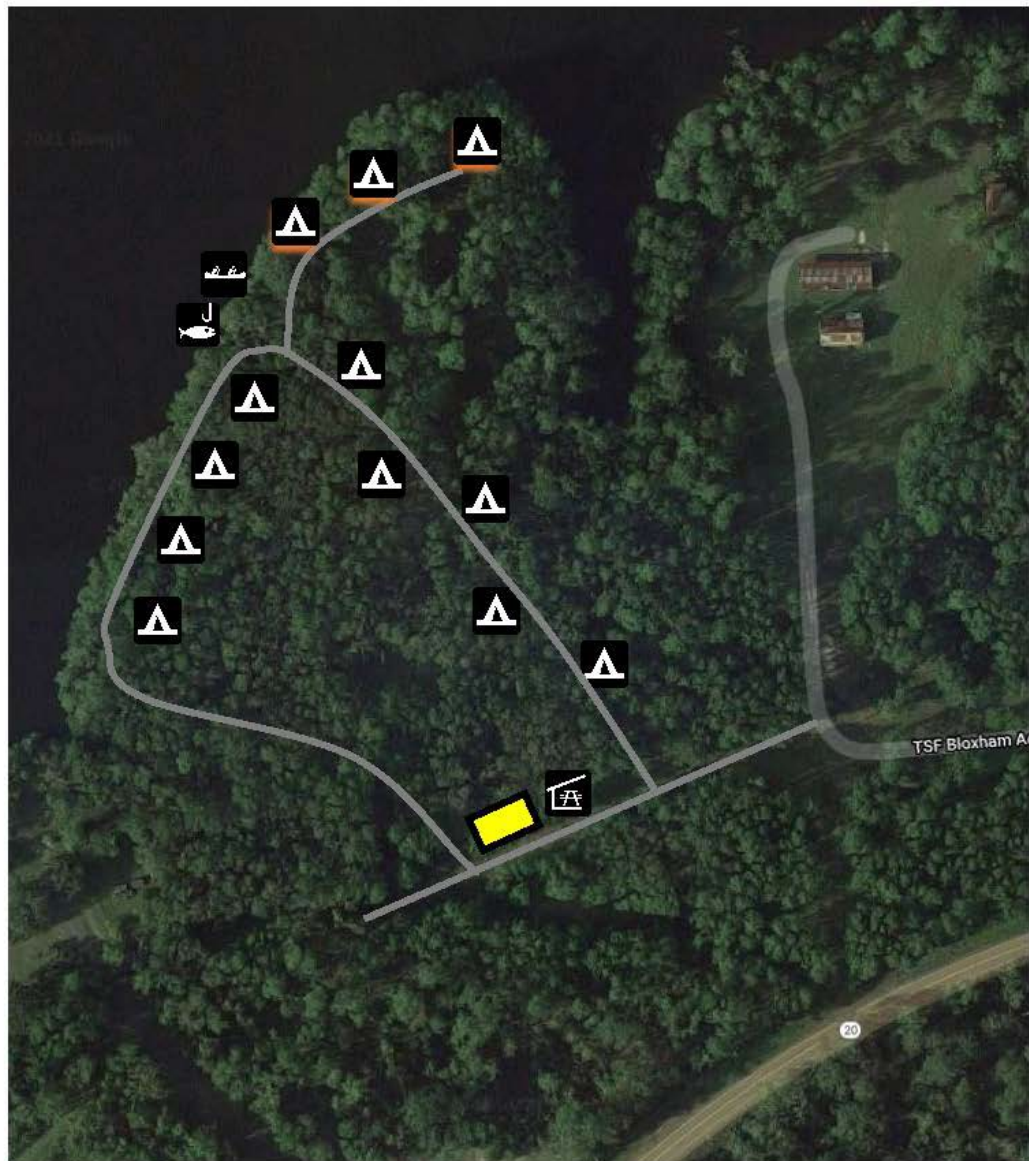
No wetlands occur within the site footprint. A buffer will remain between the campsites and the lake, and appropriate permits will be obtained for the septic system as well as the proposed dock.

Cultural/historical resources:

There are no recorded historical resources in the vicinity, although this specific site has not been surveyed by DHR. Lake Talquin State Forest has Five Archaeological Resource Monitors trained by the Florida Division of Historical Resources for monitoring ground disturbing activities.

Threatened or Endangered Species:

- Animal
 - A gopher tortoise burrow was located approximately 100 ft from the proposed bathhouse in an existing utility corridor.
 - A bald eagle's nest is located near the lakeshore in proximity to the proposed campground. Last known activity for the nest was in 2012, with monitoring ceasing in 2017. FFS will consult FWC regarding the status of the nest prior to any construction commencement.
- Plant
 - No known listed plant species are recorded at this site.



Pavilion



Bathhouse w/Septic System



Canoe/Kayak Launch



Fishing Dock



RV/Tent campsite



Tent Only campsite



Location of Campsite Access Road, Utility Lines



Location of Campsites along Access Road



Location of Bathhouse



Location of Pavilion