DRAFT 01/05/12

Miccosukee Canopy Road Greenway

Management Plan Submitted and
Managed By: LEON COUNTY
via sublease agreement with the
Office of Greenways and Trails

Lease #4259-01

Management Plan Submittal Date:

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Management Plan Compliance Checklist - Natural Resource Lands	
Requirements	**Location**
18-2.021 Acquisition and Restoration Council.	
1. Executive Summary	xi
Management Plans. Plans submitted to the division for ARC review under the requirements of Section 253.034 F.S. should be in a form and manner prescribed by rule by the board and in accordance with the provisions of S. 259.032 and should contain where applicable to the management of resources the following:	
2. The common name of the Miccosukee Canopy Road Greenway (MCRG).	xi
3. A map showing the location and boundaries of the MCRG plus any structures or improvements to the MCRG.	Maps 1 & 2
4. The legal description and acreage of the MCRG.	xi
5. The degree of title interest held by the Board, including reservations and encumbrances such as leases.	xii
6. The land acquisition program, if any, under which the MCRG was acquired.	xii
7. The designated single use or multiple use management for the MCRG, including other managing agencies.	xi,17
8. Proximity of MCRG to other significant State/local/federal land or water resources.	3
9. A statement as to whether the MCRG is within an Aquatic Preserve or a designated Area of Critical State Concern or an area under study for such designation. If yes, make sure appropriate managing agencies are notified of the plan.	2,3
10. The location and description of known and reasonably identifiable renewable and non-renewable resources of the MCRG including, but not limited to, the following:	
A. Brief description of soil types, using USDA maps when available;	6
B. Archaeological and historical resources*;	11
C. Water resources including the water quality classification for each water body and the identification of any such water body that is designated as an Outstanding Florida Waters;	7,8
D. Fish and wildlife and their habitat;	9
E. State and federally listed endangered or threatened species and their habitat;	10
F. Beaches and dunes;	N/A
G. Swamps, marshes and other wetlands;	7,8
H. Mineral resources, such as oil, gas and phosphate;	8
I. Unique natural features, such as coral reefs, natural springs, caverns, large sinkholes, virgin timber stands, scenic vistas, and natural rivers and streams; and	11,12
J. Outstanding native landscapes containing relatively unaltered flora, fauna, and geological conditions.	12
11. A description of actions the agency plans, to locate and identify unknown resources such as surveys of unknown archeological and historical resources.	11,36

12. The identification of resources on the MCRG that are listed in the Florida Natural Areas Inventory. Include letter from FNAI or consultant, where appropriate.	Appendix C
13. A description of past uses, including any unauthorized uses of the MCRG.	13,14
14. A detailed description of existing and planned use(s) of the MCRG.	42-46
15. A description of alternative or multiple uses of the MCRG considered by the managing agency and an explanation of why such uses were not adopted.	46-48
16. A detailed assessment of the impact of planned uses on the renewable and non-renewable resources of the MCRG and a detailed description of the specific actions that will be taken to protect, enhance and conserve these resources and to mitigate damage caused by such uses.	17
17. A description of management needs and problems for the MCRG.	39,40
18. Identification of adjacent land uses that conflict with the planned use of the MCRG, if any.	14
19. A description of legislative or executive directives that constrain the use of such MCRG.	31,32
20. A finding regarding whether each planned use complies with the State Lands Management Plan adopted by the Trustees on March 17, 1981, and incorporated herein by reference, particularly whether such uses represent "balanced public utilization", specific agency statutory authority, and other legislative or executive constraints.	4
21. An assessment as to whether the MCRG, or any portion, should be declared surplus.	xiii,31
22. Identification of other parcels of land within or immediately adjacent to the MCRG that should be purchased because they are essential to management of the MCRG. Clearly defined map of parcels can be used.	xiii
23. A description of the management responsibilities of each agency and how such responsibilities will be coordinated, including a provision that requires that the managing agency consult with the Division of Historical Resources before taking actions that may adversely affect archaeological or historic resources.	36
24. A statement concerning the extent of public involvement and local government participation in the development of the plan, if any, including a summary of comments and concerns expressed.	xiii,17
Additional Requirements—Per Trustees.	
25. Letter of Compliance of the management plan with the Local Government Comprehensive Plan. Letter from local government saying that the plan is in compliance with local government's comprehensive plan.	Appendix L
253.034 State-Owned Lands; Uses. Each entity managing conservation lands shall submit to the Division of State Lands a land management plan at least every 10 years in a form and manner prescribed by rule by the Board.	
26. All management plans, whether for single-use or multiple-use properties, shall specifically describe how the managing entity plans to identify, locate, protect and preserve, or otherwise use fragile nonrenewable resources, such as archaeological and historic sites, as well as other fragile resources, including endangered plant and animal species.	32-37
27. The management plan shall provide for the conservation of soil and water resources and for the control and prevention of soil erosion.	33
28. Land management plans submitted by an entity shall include reference to appropriate statutory authority for such use or uses and shall conform to the appropriate polices and guidelines of the state land management plan.	31,32
29. All land management plans for parcels larger than 1,000 acres shall contain an analysis of the multiple-use potential of the parcel, which analysis shall include the potential of the parcel to generate revenues to enhance the management of the parcel.	N/A

30. Additionally, the land management plan shall contain an analysis of the potential use of private managers to facilitate the restoration or management of these lands.	41
31. A physical description of the land.	5-7
32. A desired outcome.	39
33. A quantitative data description of the land which includes an inventory of forest and other natural resources; exotic and invasive plants; hydrological features; infrastructure, including recreational facilities; and other significant land, cultural, or historical features.	6-11 and Appendix K
34. A detailed description of each short-term and long-term land management goal, the associated measurable objectives, and the related activities that are to be performed to meet the land management objectives. Each land management objective must be addressed by the land management plan, and where practicable, no land management objective shall be performed to the detriment of the other land management activities.	19-26
35. A schedule of land management activities which contains short-term and long-term land management goals and the related measurable objectives and activities. The schedule shall include for each activity a timeline for completion, quantitative measures, and detailed expense and manpower budgets. The schedule shall provide a management tool that facilitates development of performance measures.	19-26 and Appendix J
36. A summary budget for the scheduled land management activities of the land management plan. For state lands containing or anticipated to contain imperiled species habitat, the summary budget shall include any fees anticipated from public or private entities for projects to offset adverse impacts to imperiled species or such habitats, which fees shall be used solely to restore, manage, enhance, repopulate, or acquire imperiled species habitat. 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).	Appendix J
37. Each management plan shall describe both short-term and long-term management goals, and include measurable objectives to achieve those goals. Short-term and long-term management goals shall include measurable objectives for the following, as appropriate	19-26
(A) Habitat restoration and improvement;	20,21
(B) Public access and recreational opportunities;	21,22
(C) Hydrological preservation and restoration;	22
(D) Sustainable forest management;	23
(E) Exotic and invasive species maintenance and control;	23,24
(F) Capital facilities and infrastructure;	24,25
(G) Cultural and historical resources;	25,26
(H) Imperiled species habitat maintenance, enhancement, restoration, or population restoration	26
253.036 Forest Management.	
38. For all land management plans for parcels larger than 1,000 acres, the lead agency shall prepare the analysis, which shall contain a component or section prepared by a qualified professional forester which assesses the feasibility of managing timber resources on the parcel for resource conservation and revenue generation purposes through a stewardship ethic that embraces sustainable forest management practices if the lead management agency determines that the timber resource management is not in conflict with the primary management objectives of the parcel.	N/A
259.032 Conservation And Recreation Lands Trust Fund; Purpose.	

(10)(a) State, regional or local governmental agencies or private entities designated to manage lands under this section shall develop and adopt, with the approval of the Board of Trustees, an individual management plan for each project designed to conserve and protect such lands and their associated natural resources. Private sector involvement in management plan development may be used to expedite the planning process.	
39. Individual management plans required by s. 253.034(5), for parcels over 160 acres, shall be developed with input from an advisory group - Management plan should list advisory group members and affiliations.	18
40. The advisory group shall conduct at least one public hearing in each county in which the parcel or project is located. Managing agency should provide DSL/OES with documentation showing date and location of public hearing.	To be held May 2012
41. 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. Managing agency should provide DSL/OES with copy of notice.	To be advertised March/April 2012
42. The management prospectus required pursuant to 259.032 (9) (d) shall be available to the public for a period of 30 days prior to the public hearing.	Will be made available
43. Summary of Advisory Group Meeting should be provided to DSL/OES.	Appendix O
44. Individual management plans shall conform to the appropriate policies and guidelines of the state land management plan and shall include, but not be limited to:	
A. A statement of the purpose for which the lands were acquired, the projected use or uses as defined in s. 253.034, and the statutory authority for such use or uses.	17
B. Key management activities necessary to achieve the desired outcomes, including, but not limited to, providing public access, preserving and protecting natural resources, protecting cultural and historical resources, restoring habitat, protecting threatened and endangered species, controlling the spread of nonnative plants and animals, performing prescribed fire activities, and other appropriate resource management activities.	19-26
C. A specific description of how the managing agency plans to identify, locate, protect, and preserve, or otherwise use fragile, nonrenewable natural and cultural resources.	36,37
D. A priority schedule for conducting management activities, based on the purposes for which the lands were acquired. The schedule must include a goal, an objective, and a time frame for completion.	19-26
E. A cost estimate for conducting priority management activities, to include recommendations for cost-effective methods of accomplishing those activities. Using categories as adopted pursuant to 259.037, F.S., is suggested. These are: (1) Resource Management; (2) Administration; (3) Support; (4) Capital Improvements; (5) Visitor Services/Recreation; and (6) Law Enforcement.	Appendix J
F. A cost estimate for conducting other management activities which would enhance the natural resource value or public recreation value for which the lands were acquired. The cost estimate shall include recommendations for cost-effective methods of accomplishing those activities. Using categories as adopted pursuant to 259.037, F.S., is suggested. These are: (1) Resource Management; (2) Administration; (3) Support; (4) Capital Improvements; (5) Visitor Services/Recreation; and (6) Law Enforcement.(Example #10) Include approximate monetary cost and cost effective methods. Can be placed in the appendix.	Appendix J
45. A determination of the public uses and public access that would be consistent with the purposes for which the lands were acquired.	42-48
259.036 Management Review Teams.	

46. The managing agency shall consider the findings and recommendations of the land management review team in finalizing the required 10-year update of its management plan. Can be addressed in the body of the plan or addressed in an appendix. If not in agreement, the managing agency should reply in a statement in the appendix.	xiv,49
Other Requirements.	
47. This checklist table at front of plan (pursuant to request of ARC and consensus agreement of managing agencies.)	✓
48. Accomplishments (implementation) from last plan (format variable by agency)	49
49. FNAI-based natural community maps (may differ from FNAI in some cases)	Maps 4a & 4b
50. Fire management plans (either by inclusion or reference)(259.032)	34
51. A statement regarding incompatible uses [ref. Ch. 253.034 (9)]	45
52. Cultural resources, including maps of all sites except Native American sites*	Appendix H
53. Arthropod control plan	38
Office of Greenways and Trails Requirements.	
Potential Ecological or Recreational Linkages to other Public Lands–planning and management opportunities that exist for integrating the MCRG into the regional greenways and trails system.	31
Description of the how entity will defend title for the state owned land.	27
One page Overview of the Plan	1
Climate	5
Table of Contents	✓
***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.**	

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TABLE OF CONTENTS

MANAGEMENT PLAN COMPLIANCE CHECKLIST i

EXECUTIVE SUMMARY xi

OVERVIEW 1

I. INTRODUCTION 2

- **Location of Property** 2
- **Land Acquisition History and Ownership** 2
- **Nearby Public Lands and Designated Water Resources** 2
- **Regional Significance** 3
- **Purpose and Scope of Plan** 4

II. NATURAL, CULTURAL, AND HISTORICAL RESOURCES 5

- **Climate** 5
- **Area Physiography**
  - Topography and Geomorphology 5
  - Geology 5
  - Soils 6
  - Water Resources, Hydrology, and Water Management 7
- **Natural Communities** 8
- **Forest Resources** 8
- **Mineral Resources** 8
- **Native Species** 9
- **Listed Species** 10
- **Invasive Species**
  - Plants 10
  - Animals 10
- **Archaeological, Historical, and Cultural Resources** 11
- **Scenic Resources and Unique Natural Resources** 11
- **Outstanding Native Landscapes** 12

III. USE OF PROPERTY and PUBLIC INPUT 13

- **Past and Current Uses** 13
- **Existing Land Uses** 14
- **Future Land Uses** 14
- **Easements** 15
- **Use of the Property** 17
- **Impact Assessment of Planned Uses** 17
- **Public Involvement** 17

Public Meetings 17
Advisory Group 18

IV. MANAGEMENT ISSUES, GOALS, and OBJECTIVES 19

Goals and Objectives 19

Goal 1: Habitat Restoration and Improvement 20
Goal 2: Public Access and Recreational Opportunities 21
Goal 3: Hydrological Preservation and Restoration 22
Goal 4: Sustainable Forest Management 23
Goal 5: Exotic and Invasive Species Maintenance and Control 23
Goal 6: Capital Facilities and Infrastructure 24
Goal 7: Cultural and Historical Resources 25
Goal 8: Imperiled Species Habitat Maintenance, Enhancement, Restoration, or Population Restoration 26

Management Authority 27
Defending Title 27
Development 27
Proposed Improvements 27
Carrying Capacity 30
Easements 31
Potential Surplus Lands 31
Prospective Land Acquisitions 31
Partnerships and Regional Coordination 31
Compliance with State and Local Government Requirements 31
On-going Research and Monitoring 32
Resource Management and Protection 33
Soil Management 33
Hydrology/Water Management 33
Natural Communities Management 33
Forest Resources Management 34
Fire Management 34
Mineral Resources Management 35
Native Species Management 35
Listed Species Management 35
Invasive Non-native Species Management 36
Archaeological, Historical, and Cultural Resource Management 36
Scenic Resources Management 37
Arthropod Plan/Mosquito Control 38
Management Priorities 39
Objectives 39
Operational Activities 39
Funding 39
New Development 40
Safety/Security Management 40

Citizen Support Organizations 41
Private Vendors 41
Florida Greenways and Trails Designation 41
National Recreation Trail Designation 42
Public Access and Use 42
Access/Parking 42
Walking/Hiking/Running 43
Bicycling 43
Equestrian Use 44
Camping 44
Fishing 44
Hunting 44
Picnicking 44
Other Uses 44
Interpretive Opportunities 47
Geocaching 47
Orienteering 47
Pet Policies 48
Managing Multiple Trail Uses 48
Transportation Alternatives 48
Special Events 48
Emergency Operations 48
Accomplishments from Implementation 49
Land Management Review 49

TABLES

1. Conservation Areas Within Three Miles 1
2. Soil Types. 6
3. Known Intersecting or Adjacent Easements 16
4. Uses 46

MAPS

1. Sectors (Maps 1, 2, 3, and 4)
2. Existing and Proposed Facilities
3. Regional Significance (Maps 3a, 3b, & 3c)
4. Natural Communities (Maps 4a & 4b)
5. Hydrologic Features (Maps 5a, 5b, & 5c)
6. Soils (Maps 6a & 6b)
7. Existing Land Use
8. Future Land Use
9. Roadway Easements (Maps 9a & 9b)
10. Other Easements

APPENDICES

A. Purchase Agreement, Agenda, and Other Supporting Documents
B. Warranty Deeds and Leases
C. Florida Natural Areas Inventory (FNAI) Report
D. Natural Features Inventory
E. Design guidelines for unpaved and paddling trails
F. Forest Stewardship Management Plan
G. Florida Fish and Wildlife Conservation Commission Report
H. Florida Division of Historical Resources Florida Master Site File Report
I. Glossary
J. Budget
K. Existing Improvements
L. Comprehensive Plan Consistency Review
M. Use and Scheduling of Parks & Recreation Facilities Policy
N. Canopy Road Related Code Provisions
O. Citizens Advisory Committee Meeting Minutes and Related Materials

MICCOSUKEE CANOPY ROAD GREENWAY

EXECUTIVE SUMMARY

LEAD AGENCY:

Leon County, Division of Recreation and Parks through a Sublease from the Department of Environmental Protection (DEP), Division of Recreation and Parks (DRP), Office of Greenways and Trails (OGT)

PROPERTY NAME:

Miccosukee Canopy Road Greenway (MCRG or Greenway)

COMMON NAME OF PROPERTY:	Miccosukee Greenway
LOCATION:	LEON COUNTY, a charter county and a political subdivision of the State of Florida, hereinafter referred to as “Leon County” or the "County." Depicted on Florida U.S. Geological Survey 7.5 minute topographic quadrangle for Leon County the MCRG is located in Sections 12, 13, 14, and 15, Township 1 North, Range 1 East, and Sections 4, 5, 7, and 8, Township 1 North, Range 2 East.
TOTAL ACREAGE:	501.4 acres

ACREAGE/LAND COVER CLASS:

Upland Forest	348.9 ac
Savanna	3.2 ac
Floodplain/Bottomland Forest	9.8 ac
Pasture/Open Fields	137.5 ac
Wetlands	2.0 ac
LEASE/MANAGEMENT AGREEMENT NUMBER:	#4259
SUBLEASE:	#4259-01 (Leon County)
USE:	Single

MANAGEMENT RESPONSIBILITIES:

Lessor:	Board of Trustees of the Internal Improvement Trust Fund (TIITF) of the State of Florida
Sublessor:	Florida Department of Environmental Protection, Division of Recreation and Parks, Office of Greenways and Trails
Sublessee:	Leon County (all management responsibilities)

DESIGNATED LAND USE:	Recreation and Open Space

CONTRACTS:	None
ENCUMBRANCES:	At the time of the acquisition, multiple encumbrances were known to the Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees). None of these encumbrances, noted in the Deed, were deemed as an impediment to the establishment and use of the property as a recreational trail. Encumbrances since the acquisition have been approved by the Acquisition and Restoration Council and the Trustees.
TYPE OF ACQUISITION:	Fee simple through the Florida Department of Environmental Protection, Division of Recreation and Parks, Office of Greenways and Trails (OGT) Land Acquisition Program. The property was acquired May 6, 1998 utilizing Preservation 2000 funds for $4,050,000.

UNIQUE NATURAL FEATURES:

Unique natural features within the Greenway includes a 45.6-acre upland hickory-oak-pine forest stand in the eastern half of the MCRG on the south side of Miccosukee Road. No other unique natural features, such as coral reefs, natural springs, caverns, large sinkholes, virgin timber stands are known to exist on the property.

ARCHAEOLOGICAL/HISTORICAL FEATURES:

The MCRG includes a portion of the 19th century, Welaunee Plantation (LE 5007) Resource Group; the MCRG surrounds the Old Hickory Hill Cemetery at Welaunee (LE2910), the earliest marked death date is 1919; in 2006 a historic ceramics and glass surface scatter was recovered from the multi-use trail and recorded (LE5294), in 2007 Archaeological Consultants, Inc. (ACI) conducted systematic subsurface testing with negative results. Much of the Greenway has been managed for agricultural purposes in the past, including cleared pasture, logging, and crops.

There are two undocumented resources. One is an old residential site on the eastern side of the portion of the Greenway east of I-10 and south of Miccosukee Road. The house has long been removed, but some associated debris still remains in this area, as well as a hand-dug well. The second undocumented resource is a hand-dug well which is located on the north side of the easternmost unit of the Greenway. Both wells have been filled with sand.

MANAGEMENT NEEDS:

The Miccosukee Canopy Road Greenway is a linear park and multi-use greenway with trails that preserves a historical canopy road and its immediate environs and allows passive recreational use. Towards this goal, the following management objectives include:

- Protect and restore natural, historical, cultural and archaeological resources.
- Provide for the safety of all users.
- Provide for passive recreational uses only.
- Provide equal access for all users to the extent possible and permittable.
- Maintain and improve facilities to ensure a high-quality greenway experience for users.
- Provide maps, signage, and other information for users.
- Strengthen user and stewardship partnerships.
- Facilitate community education and awareness of scenic, cultural, historical, and environmental resources involving the Greenway.
- Provide for alternative transportation uses, consistent with the *Tallahassee – Leon County Greenways Master Plan*.
- Preserve the tree canopy and historical vistas on Miccosukee Road; and
- Manage the natural landscape as guided by the Forest Stewardship Management Plan and other guidelines in this Plan.

Additional special management considerations include, but are not limited to, access, prescribed burning, and trail and facility uses and conflicts. Recommended management practices for plant and animal communities, including prescribed burning, are provided in the Forest Stewardship Management Plan for the Greenway (Appendix F).

ACQUISITION NEEDS/ACREAGES:

If there is an opportunity to expand the boundaries of the Greenway to protect the canopy of Miccosukee Road, protect the scenic view and vistas, and/or to make its management more efficient, then the County should explore such opportunities, consistent with the *Tallahassee – Leon County Greenways Master Plan*. Of particular interest, a four-acre parcel at the easternmost end of the Greenway has been targeted for acquisition (the northwest corner of Crump Road and Miccosukee Road).

SURPLUS LAND/ACREAGE: None

PUBLIC INVOLVEMENT:

The Friends of the Miccosukee Canopy Road Greenway, incorporated as a non-profit Florida Corporation, was the principal citizens committee providing input into the creation, design, and eventual use of the Greenway. The purpose of this group is to promote broad community participation in the development of the Miccosukee Canopy Road Greenway as a linear park with a public access greenway; to promote recreational, educational, and alternative transportation uses for the facility; and to provide assistance to Leon County for its management and operational plans.

Section 259.032(10)(b), Florida Statutes, requires an advisory group composed, at a minimum, of representatives of the lead land managing agency, co-managing entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official, to provide input into the management plan (for parcels over 160 acres).

In accordance with Sec. 259.032(10(b), F.S., the Miccosukee Canopy Road Greenways Citizens Advisory Committee (CAC) was created by an enabling Resolution adopted August 17, 2010 by the Leon County Board of County Commissioners (BCC). The CAC was to participate in the update and review of the Management Plan, collect public input, and make final recommendations regarding any modifications to the Management Plan to the BCC for submittal to the State. The CAC met on the following dates to provide input and respond to draft versions of the management plan:

March 31, 2011
April 28, 2011
May 12, 2011
June 8, 2011
July 13, 2011
July 19, 2011
July 27, 2011
August 9, 2011
August 16, 2011
September 1, 2011
October 27, 2011
November 10, 2011
December 1, 2011
January 5, 2012

An advertised public meeting to present preliminary plans and to solicit and discuss suggestions for any additional activities and uses within the Greenway was held on [to be inserted later].

LAND MANAGEMENT REVIEW:

An Interagency Land Management review Team (LMR) has not toured the property or conducted a Land Management Review.

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

ARC Approval Date: Trustees Approval Date:

Comments:

OVERVIEW

This is an update of the original Management Plan developed for the Miccosukee Canopy Road Greenway (MCRG), commonly known as the Miccosukee Greenway (Greenway) that is managed and maintained by Leon County's Division of Parks and Recreation. Of the total 501 acres, approximately 359 acres (72%) are comprised of forested areas, two acres (0.4%) are wetlands, with the remaining 140 acres (28%) in pasture land, savanna, or open fields.

Within the Red Hills Region of northern Florida, the 6.4-mile long Miccosukee Canopy Road Greenway (MCRG) is located between Fleischman and Crump Roads, it parallels six miles of Tallahassee's historic canopy along Miccosukee Road in Leon County. The protected tree canopy zone is preserved by City and County land development regulations (see Appendix N) for its historic and scenic significance. There are scenic and highly valued rural vistas such as canopy road forest tunnels, meadows/pasture, forested wetlands, and clay hill lakes within and adjacent to MCRG.

The MCRG is managed as single-use recreation consistent with the protection of natural and historical resources. The primary purpose of this acquisition was to provide protection for the historical vistas, and to provide open space and recreational in an area of the County that will become more urbanized in the future.

The MCCRG's land use designation in the local Comprehensive Plan is Recreation/Open Space. The area north of the Greenway is currently vacant, whereas there is a mix of existing single-family, higher density residential developments, and vacant land to the south.

The County has implemented many of the original planned MCRG improvements, including a popular multi-use trail system along its entire length, four parking areas/trailheads with amenities, and two marked crossings of Miccosukee Road. The multi-use trails traverse rolling hills in mixed hardwood and pine forests, interspersed with several large pastures. The MCRG is part of the Tallahassee – Leon County Greenways system, which includes the J.R. Alford Greenway, the Lafayette Heritage Trail Greenway, the Klapp-Phipps Greenway, and the St. Marks Headwaters Greenway, as well as several smaller greenways and conservation land parks. Officially part of Florida's Greenways and Trails System, the MCRG has also been designated as a National Recreation Trail®.

As described elsewhere in this Plan, there are a number of invasive exotic plant species found in various locations on the Greenway. There are no known exotic invasive animals. There are also no beaches, dunes, mineral resources, or water bodies on the Greenway. The MCRG is not within an Aquatic Preserve nor within a Designated Area of Critical Concern, and it does not have any designated Outstanding Florida Waters. Several unique natural features and outstanding native landscapes on the Greenway are described elsewhere in this Plan.

The only listed species indicated by the FNAI report directly within the Greenway included an element occurrence record for Sherman's Fox Squirrel (*Sciurus niger shermani*). However, based on the location and ecology of the Greenway, the federally endangered Red-cockaded Woodpecker, Bald eagle, and the Gopher tortoise (warranted for federal listing) may be expected to be found on or near the Greenway.

I. INTRODUCTION

Location of Property

The property, commonly known as the Miccosukee Greenway (MCRG or Greenway), is located in Leon County, Florida and parallels Miccosukee Road from Fleischmann Road east to Crump Road (Map 1). The Greenway borders a protected tree canopy zone preserved by County ordinance for its historic and scenic significance.

The Greenway is divided for management purposes into four sectors. These sectors (#1, #2, #3, and #4) are indicated in the Map 1 series of four maps. These sectors are described east to west as follows:

1. Sector 1: Fleischmann Trailhead to Edenfield Trailhead (Fleischmann Road to Edenfield Road);
2. Sector 2; Edenfield Trailhead to Miles Johnson Crossing (Edenfield Road to approximately 600' east of the intersection of Miccosukee Road and Miles Johnson Road);
3. Sector 3: Miles Johnson Crossing to the Argyle Crossing; and
4. Sector 4: Argyle Crossing to Crump Road Trailhead.

Land Acquisition History and Ownership

The MCRG was acquired fee simple on May 6, 1998 utilizing Preservation funds for $4,050,000, through the Florida Department of Environmental Protection (FDEP), Division of Recreation and Parks (DRP), Office of Greenways and Trails (OGT) Land Acquisition Program. The property was purchased from the Trust for Public Land (TPL) who acquired the property from Powerhouse, Inc. just prior to selling the property to the state.

On February 24, 2000, Lease Number 4259 was executed between the Board of Trustees of the Internal Improvement Trust Fund (Trustees) to the Office of Greenways and Trails and then subleased to Leon County, the designated manager, via Lease Number 4259-01. Amended on December 7, 2010, the Lease expires on February 23, 2050. A copy of the original Trustees agenda item dated February 24, 1998, the Purchase Agreement, legal description and other supporting documents are provided as Appendix A.

Nearby Public Lands and Designated Water Resources

There are currently no public lands adjacent to the MCRG. However, there are 17 parks and greenways within three miles of the Greenway (Table 1 and Map 3a). Three are County parks and greenways, 13 belong to the City of Tallahassee, and one is Alfred B. Maclay Gardens State Park. The *Tallahassee – Leon County Greenways Master Plan*, adopted in 2004, recognizes these parks and greenways and identifies proposed trails intended to connect these areas to the maximum extent possible.

The Greenway does not cross any Outstanding Florida Waters (OFW), classified pursuant to Chapter 62-302 Florida Administrative Code (F.A.C.). The Greenway is not located in or near an

Aquatic Preserve, nor is it designated under Florida Aquatic Preserve Act of 1975 (Section 258.35, F.S.). The Greenway is also not within an Area of Critical State Concern (ACSC).

Table 1. Conservation Areas Within Three Miles.

No.	PARK NAME	MANAGER	ACREAGE
1	A J Henry Park	COT	74.58
2	Betton Nature Center	COT	1.94
3	Chittenden Park	COT	1.54
4	Doomar Rd Nature Preserve	COT	12.88
5	Dorothy B Oven Park	COT	7.49
6	Evelyn W. Randolph Park	COT	1.33
7	Glendale Playground	COT	0.42
8	Guyte P McCord Park	COT	18.36
9	Harriman Circle Park	COT	7.95
10	Lafayette Heritage Trail Park	COT	797.76
11	Tom Brown Park	COT	304.05
12	Waverly Pond	COT	7.45
13	Winthrop Park	COT	13.29
14	Alfred B. Maclay Gardens State Park	FDEP	1214.02
15	Goose Creek	LEON COUNTY	45.26
16	J. R. Alford Greenway	LEON COUNTY	874.24
17	Pedrick Pond	LEON COUNTY	26.03

Regional Significance

The *Tallahassee – Leon County Greenway Master Plan*, adopted in 2004, identifies the MCRG as an integral connection between the Lafayette Heritage Greenway, the J.R. Alford Greenway, and open space areas to be set aside as part of the proposed development of several large parcels of land to the north of the Greenway (see Map 3b). This connection is currently proposed as the Buck Lake Greenway, connecting several large existing residential areas to the MCRG, the Lafayette Heritage Greenway, and the J.R. Alford Greenway.

The Florida Statewide Greenways and Trails Program was adopted by the Florida Legislature in 1999. As part of the Florida Greenways and Trails Program, recreational connections (opportunity corridors and other areas) have been identified throughout the state. These connections have been mapped and prioritized and form the basis for developing and evaluating acquisition projects and setting the statewide vision for a connected trails system. The MCRG is within the Miccosukee Greenway High Priority Multi-Use Corridor on the Network Opportunity Maps, a component of the statewide vision for a connected trails system (see Map 3c).

An additional trail connection is proposed east of the MCRG that would parallel Highway 90 into Jefferson County. The conceptual plan is to eventually establish a multi-use path parallel to

Highway 90 into Monticello, Florida. This is consistent with the Miccosukee Greenway High Priority Multi-Use Corridor.

The *Trails Plan*, an element of the *Regional Mobility Plan*, created by the Capital Region Transportation Planning Agency (CRTPA), was developed to address the need for a connected hard surface trail system within and throughout the CRTPA region. This trail system is intended to provide a commuting alternative for individuals who seek non-motorized transportation options with emphasis placed on limiting exposure to motor vehicles along the commute. Adopted by the CRTPA Board on March 21, 2011, the *Trails Plan* recognizes and incorporates the MCRG as a component of the *Regional Mobility Plan*.

Purpose and Scope of Plan

This Plan serves as the basic statement of policy and direction for the management of the Miccosukee Canopy Road Greenway as a unit of Leon County's parks and greenways system. It identifies the objectives, criteria, and standards used to guide all aspects of greenway administration, and sets forth the specific measures that will be implemented to meet management objectives. This plan is intended to meet the requirements of Section 253.034 and 259.032, Florida Statutes; Chapter 18, F.A.C.; and to be consistent with the State Lands Management Plan. All development and resource alteration encompassed in this plan is subject to the granting of all appropriate permits, easements, licenses, and other required legal instruments. Approval of this management plan does not constitute an exemption from complying with all applicable local, state, or federal regulations.

The plan describes the natural and cultural resources of the Greenway, as well as a description of existing and proposed uses and facilities. Resource management problems and needs are identified, and specific management objectives are established. The latter provide guidance on the application of such measures as prescribed burning, exotic species removal, and restoration of natural conditions.

II. NATURAL, CULTURAL, AND HISTORICAL RESOURCES

Climate

Leon County has a mild, moist climate with four distinct seasons, including subtropical summers with frequent thunderstorms, and 90 days with above 90 degree temperatures annually. Winters are often rainy with less sunshine than in summer and occasional below freezing days. High winds occur most frequently in late winter and early spring, and, with the exception of 2004's unusual season, full-blown hurricanes directly hit about every 17 years.

The average temperatures in the Tallahassee urban area, which the MCRG is located within, include 51.8° F in January and 82.4° F in July. The Average Annual Precipitation is 63.21 inches.[1]

Area Physiography

Topography and Geomorphology

The MCRG is located within the Red Hills Region of Florida, a unique 300,000-acre (515.6 sq. mi) area of the southeastern United States overlapping parts of southwestern Georgia and north Florida.

The Red Hills extend from just east of the Aucilla River to the west of the Ochlockonee River, and from the farmlands near Coolidge, Georgia down to Tallahassee, Florida, where the land drops at the Cody Scarp from heights of nearly 300 feet down to 50 to 80 feet above sea level, to the Woodville Karst Plain.

The Red Hills are characterized by rolling hills, ravines, and gullies covered by forests and the large lakes of Lake Jackson, Lake Iamonia, Lake Miccosukee, Lake Lafayette, and Lake Talquin. The highest point in the Red Hills is 280 feet (85.3m), 10 miles north of Tallahassee. The soils primarily consist of red clay deposited during the last ice age from the Appalachian Mountains. Rivers running through the Red Hills Region include the Aucilla River, Ochlockonee River, and Telogia Creek. The St. Marks River is subterranean until it meets the surface in the Woodville Karst Plain.

Geology[2]

Leon County sits atop basement rock composed of basalts of the Triassic and Jurassic from ~251—145 million years ago interlayered with Mesozoic sedimentary rocks. The layers above the basement are carbonate rock created from dying foraminifera, bryozoa, mollusks, and corals from as early as the Paleocene, a period of ~65.5—55.8 Ma.

During the Eocene (~55.8—33.9 Ma) and Oligocene (~33.9—23 Ma), the Appalachian Mountains began to uplift and the erosion rate increased enough to fill the Gulf Trough with quartz sands, silts, and clays via rivers and streams. The first sedimentation layer in Leon County

[1] "Climatography of the United States No. 20 (1971–2000)" (PDF). National Oceanic and Atmospheric Administration. 2004.
[2] Special Publication No. 35, Florida's Geological History and Geological Resources, Florida Geological Survey, Tallahassee, 1994. ISSN 0085-0640.

is the Oligocene Suwannee Limestone in the southeastern part of the County as stated by the United States Geological Survey and Florida Geological Survey.

The Early Miocene (~23.03—15.7 Ma) sedimentation in Leon County is Hawthorn Group, Torreya Formation and St. Marks Formation, found in the northern two-thirds of the County. The Pliocene (~5.332—2.588 Ma) is represented by the Miccosukee Formation scattered within the Torreya Formation.

Sediments were laid down from the Pleistocene epoch (~2.588 million—12,000 years ago) through Holocene epoch (~12,000—present) and are designated Beach ridge and trail and undifferentiated sediments.

During the Pleistocene, what would be Leon County emerged and submerged with each glacial and interglacial period. Interglacials created the topography of Leon as it is known now.

Soils

Soil types on the MCRG are listed in Table 2 and exhibited on Maps 6a and 6b.

Table 2: Soil Types.

Soil Type	Vegetative Community	Slope	Drainage	Site Index[3]
Albany	pine/hardwood	0-2%	somewhat poorly drained	80
Blanton	pine/hardwood	0-5%	moderately well-drained	80
Lucy	pine/hardwood	0-5%	well-drained	80
Lynchburg	pine/hardwood	0-2%	somewhat poorly drained	90
Norfolk	pine/hardwood	2-5% and 5-8%	well-drained	90
Ocilla	pine/hardwood	0-2%	somewhat poorly drained	80
Orangeburg	pine/hardwood	2-5%, 5-8%, and 8-12%	well-drained	90
Pelham	wetland forest	0-2%	poorly drained	90
Plummer	wetland forest	level	poorly drained	90
Wagram	pine/hardwood	0-5%	well-drained	80

[3] Site Index is defined as the average height of the dominant and co-dominant trees within an even-aged stand of the selected species at age 50 years.

- Albany loamy fine sand is a somewhat poorly drained, nearly level soil (0-2% slopes) on lower elevations of uplands. The water table reaches 12 to 30 inches below the soil surface for 1 to 2 months of the year but the upper soil layers usually have very low available water capacity. Albany soil's natural fertility is low.
- The Blanton fine sand soil is a nearly level to gently sloping soil on moderately well drained uplands. Slopes are 0-5%. It has low natural fertility.
- Lucy fine sand is a well-drained soil on upland ridges and hillsides. Slopes vary from 0-5%. Natural fertility is low.
- Lynchburg fine sandy loam is a somewhat poorly drained, nearly level soil that is found in shallow depressional areas and on broad interstream divides. Slopes range from 0-2%. Lynchburg soil has a water table that is 6-20 inches below the surface for 1 to 3 months during spring and winter months in most years. Natural fertility is low.
- Norfolk loamy fine sand has a 2-5% and 5-8% slope and is well drained. It is a gently sloping soil to strongly sloping on uplands. Natural fertility is moderate to moderately low on steeper slopes.
- Ocilla fine sand is a somewhat poorly drained, nearly level soil on moderately low uplands. Ocilla soil has a water table within a depth of 15 to 30 inches for 2 to 6 months. Slopes range from 0-2% and are slightly convex. Natural fertility is low.
- Orangeburg fine sandy loam is a well-drained, gently to strongly sloping soil on uplands. The slopes of Orangeburg fine sandy loam vary between 2-5%, 5-8%, and 8-12%. Natural fertility is moderate.
- Pelham fine sand is a poorly drained nearly level soil on broad flatwoods, in depressional areas and in some drainage ways on uplands. Slopes range from 0-2%. The water table is within 15 inches of the soil surface for 3-6 months in most years. Natural fertility is low.
- The Plummer fine sand is a poorly drained nearly level soil that is in low areas and poorly defined drainage ways. The water table is within 15 inches of the soil surface for 3-6 months in most years. Natural fertility is low.
- Wagram loamy fine sand is a well-drained nearly level to gently sloping soil on broad upland ridges. Slopes are from 0-5%. Natural fertility is moderately low.

Water Resources, Hydrology, and Water Management

A hydrological assessment was conducted as part of a Natural Features Inventory (NFI), conducted by Helge R. and Russell H. Swanson and Taramati V. Shenoy, published in January 2000 (see Appendix D). Required by local ordinance prior to any development activities, the NFI was conducted as part of the City of Tallahassee's permitting process for facilities and certain management activities. The NFI inventories and describes in detail various regulated natural features such as native and other forest types, significant and severe grades, listed species, floodplains, wetlands, water features, archaeological or historical sites, karst features, canopy roads (a local designation for certain local historical roads subject to additional regulation), wells, and closed basin watersheds.

The NFI indicated no permanent waterbodies directly within the Greenway. However, there is a small intermittent solution depression lake southeast of Dove Pond approximately 1.6 acres in size which is normally dry, and there also are several small intermittent watercourses, including Arvah Branch, which total approximately 1560 linear feet in length. These watercourses are normally dry, but drain to the south during significant meteorological events. There are also approximately 2.0 acres of wetlands within the Greenway. These comprise an intermittent solution depression lake southeast of Dove Pond. Hydrologic features are indicated on Maps 5a, 5b, & 5c.

Dove Pond (also called Welaunee Pond or Lake) is approximately 36 acres in size and the receiving waterbody for the 1200 acre Welaunee closed basin. While not on the MCRG, it is located immediately northwest of the Greenway and is surrounded by presently undeveloped land. Normally wet, this lake drains south during periods of very high water across the Greenway. Dove Pond is a solution depression lake, which is common to northern Leon County.

Natural Communities

The Greenway borders a protected tree canopy zone preserved by City and County land development regulations for its historic and scenic significance. The Greenway received an Historic Preservation Award from the Tallahassee – Leon County Historical Preservation Society in 1999 for preserving rural landscapes.

Much of the Greenway was used for agricultural purposes for several centuries, and the original farm roads were preserved for trail use. Of the total 501 acres, approximately 359 acres (72%) are comprised of upland and bottomland forested areas, two acres (0.4%) are wetlands, with the remaining 140 acres (28%) in pasture land, savanna, or open fields.

The Florida Natural Areas Inventory (FNAI) database was queried in 2011 for the latest "element occurrence records." The results of this query are included as Appendix C.

Forest Resources

Twenty-one forest "stands," or discrete management areas (see Natural Communities Maps 4a & 4b), have been identified within the MCRG by the County Forester. These stands, including descriptions, acreages, and recommendations and guidelines for their management, are listed in the Forest Stewardship Management Plan, incorporated into this Plan as Appendix F. The original Forest Stewardship Management Plan was created at the same time the original management plan was created, and many of its guidelines and recommendations have been implemented. The continuing management of the Greenway's forest resources will continue under the guidance of this document, which was updated for the latest edition of this Plan.

Mineral Resources

There are no known mineral resources of significant economic value within the Greenway.

Native Species

The MCRG is located adjacent to an urban area and adjacent to existing low-density residential housing to the south, and to a large local "plantation" on the north that has been managed at various times under various owners for cattle, timber, crops, and game birds (quail) for a number of decades. The Greenway once being a part of this plantation, its historical management has created patches of woods in various heterogeneous and homogenous stands interspersed with pastures that have either been row-cropped or used for hunting or cattle foraging.

The Greenway provides potential suitable habitat for native wildlife species such as:

- Northern Bobwhite Quail
- White-tailed Deer
- Red Fox
- Raccoon
- Eastern Grey Squirrel
- Nine-banded Armadillo
- Field mice, rabbits, and possum
- Spiders and other arachnids
- Venomous and non-venomous snakes
- Turtles and salamanders; and
- Waterbirds such as ducks and herons; migratory songbirds, and predatory birds, including Red-shouldered and/or Red-tailed hawks, Bald Eagles, and Barred Owls.

Many but not all of these species have been sighted on or near the Greenway. Sightings of bobcats have been reported by residents, and it is likely that coyotes are also present on the Greenway at least occasionally.

Although Dove Pond is not part of the Greenway, it is worth mentioning that it appears to have a small fish population as the result of stocking or high water connectivity during significant meteorological events. Expected additional species associated with this waterbody include several centrarchids, Pickerel, minnows, bullfrogs, Pig frogs, Leopard frogs, and other common species endemic to this region. During the field work required for the NFI, a Banded Water Snake was observed.

Plant species include a variety of flowering and non-flowering native trees, shrubs, forbs, and grasses common to the Red Hills Region of North Florida and South Georgia. Tree species include Southern live oak, Water oak, Laurel Oak, White Oak, Post Oak, Black Oak, and other hardwood trees such as American Sweetgum, Magnolias, Hickory, Flowering Dogwood, Red Maple, and Redbud. Conifers are also abundant with Shortleaf Pine, Loblolly Pine, and Longleaf Pine.

Listed Species

There are a number of listed plant and animal species which occur within Leon County. A complete list of rare species and natural communities, including their global and state rank, and federal, state, and occurrence status, is included in the NFI.

FNAI records indicate several element occurrence records in or near the Greenway as described and mapped in Appendices C and D. The only listed species indicated by the FNAI report directly within the Greenway included an element occurrence record for Sherman's Fox Squirrel (*Sciurus niger shermani*). Although this sighting is at least two decades old, a member of the Citizens Advisory Committee stated seeing a family of these squirrels less than five years ago.

Based on the location and available habitats of the Greenway, the federally endangered Red-cockaded Woodpecker, Bald Eagle, and the Gopher Tortoise (warranted for federal listing) may be expected to be found on or near the Greenway. However, there are at present no known listed plant or animal species inhabiting the Greenway.

An analysis and listing of state and federally listed species habitat and occurrences provided by the Florida Fish and Wildlife Conservation Commission (FFWCC) is included in this Plan as Appendix G.

Invasive Species

Plants

Non-native (exotic) invasive plant species identified on the MCRG by County Parks and Recreation and Agricultural Extension Service staff include the following:

- Camphor tree (*Cinnamomum camphora*)
- Chinaberry tree (*Melia azederach*)
- Chinese privet shrub/tree (*Ligustrum sinense*)
- Chinese tallow tree (*Sapium sebiferum*)
- Coral Ardesia shrub (*Ardisia crenata*)
- Japanese climbing fern (*Lygodium japonicum*)
- Japanese honeysuckle vine (*Lonicera japonica*)
- Kudzu vine (*Pueraria montana*)
- Lantana shrub (*Lantana camara*)
- Mimosa shrub (*Mimosa pigra*)
- Nandina shrub (*Nandina domestica*)
- Soda/Sodom Apple herbaceous perennial (*Solanum viarum*)

Animals

Solenopsis invicta, known in the United States as the red imported fire ant (or RIFA), is an invasive pest in many areas of the world, notably the United States, Australia, the Philippines, China, and Taiwan. The RIFA was accidentally introduced into the United States aboard a South American cargo ship that docked at the port of Mobile, Alabama, in the 1930s, but now infests

the majority of the Southeastern and Southwestern United States. Fire ants have been reported on the Greenway in various locations, mostly open fields.

There are no other known instances of invasive animal species habituated to the Greenway.

Archaeological, Historical, and Cultural Resources

There are currently no standing historical structures. According to the Florida Division of Historical Resources, the Florida Master Site File lists three recorded sites on or intersecting the Greenway (Appendix H). The 19th century, Welaunee Plantation (LE 5007) Resource Group; the MCRG surrounds the Old Hickory Hill Cemetery at Welaunee (LE2910), the earliest marked death date is 1919; in 2006 a historic ceramics and glass surface scatter was recovered from the multi-use trail and recorded (LE5294), in 2007 Archaeological Consultants, Inc. (ACI) conducted systematic subsurface testing with negative results.

There are two sites that merit interpretation. The first is the Hickory Hill Cemetery, located in the western half of the MCRG. Although surrounded by the Greenway, this cemetery is located on a separate parcel co-owned by New Zion, Mount Olive, and Testerina Primitive Baptist churches. The management of this cemetery is shared by these churches as well. These three churches are required as a condition of ownership of this property to provide reasonable access to the cemetery by the family and descendants of those buried in the cemetery. A perpetual access easement for pedestrian ingress and egress to and from the cemetery (part of Appendix B) exists as part of the warranty deed associated with the MCRG. As Dempsey Mayo Road is extended, a reservation in the Deed, better pedestrian access will be provided from the Mount Olive Church to the cemetery.

The second site is an undocumented residential site on the eastern side of the portion of the Greenway east of I-10 and south of Miccosukee Road. The house has long been removed, but some associated debris still remains in this area, as well as a hand-dug well. The well was filled by County maintenance staff with a removable material to mitigate any safety concerns.

Another undocumented resource is a hand-dug well which is located on the north side of the easternmost unit of the Greenway. It has also been filled with sand, and a wooden fence installed around it.

Scenic Resources and Unique Natural Resources

This greenway borders a protected tree canopy zone preserved for its historic and scenic significance by City and County land development codes (see Appendix N).

Much of the Greenway has been managed for agricultural purposes in the past, including cleared pasture, logging, and crops. Many old farm road segments are currently being maintained for use as trails, and there is at least one old rural homesite. However, part of the original purpose for the acquisition of this Greenway was to protect historical and scenic rural vistas along Miccosukee Road including canopy road forest tunnels, meadows and pastures, and forested uplands and wetlands within the Greenway. As the urban area of Tallahassee continues to expand and develop, these vistas will become more rare and valuable.

Unique natural features within the Greenway includes a 45.6-acre upland hickory-oak-pine forest stand in the eastern half of the MCRG on the south side of Miccosukee Road. No other unique natural features, such as coral reefs, natural springs, caverns, large sinkholes, virgin timber stands are known to exist on the property.

Outstanding Native Landscapes

Because the majority of the area of the Greenway has been in agricultural use for at least a century, and because of previous logging activities, there are virtually no unaltered flora, fauna, or geological conditions known to exist on the MCRG. The sole exception is an approximately 45.6-acre upland hickory-oak-pine forest stand in the eastern half of the MCRG on the south side of Miccosukee Road. This stand (#17) and its management is described elsewhere in this Plan and in the associated Forest Stewardship Management Plan.

III. USE OF PROPERTY and PUBLIC INPUT

Past and Current Uses

Various tribes of Native Americans have used this region for hunting and gathering and agriculture for the last ten thousand years. Following European settlement, but prior to the Civil War, the land on which the Greenway is located was used for production of cotton and tobacco. Prior to state ownership, this property was managed as a plantation with timber harvesting, livestock grazing, and hunting being the main uses. Prescribed fire along with some farming operations in the fields have also been major influences on the flora. There are some areas that have been allowed to reforest naturally.

Following the acquisition of the MCRG by the State of Florida and its sub-lease to the County for management, the County has received numerous grants for improvements and amenities. Improvements have included bridge and boardwalk construction, installation of fencing, trail construction and maintenance, trailhead/parking lot construction, and restroom construction. These existing improvements are listed in Appendix K.

In addition, the facility has been recognized nationally with the National Association of County Park & Recreation Officials' Award for Environmental/Conservation Outstanding Accomplishment, as well as other distinguished designations (e.g. Forest Stewardship, State Trail System, and National Trail System).

The County has constructed four trailhead facilities with various improvements and other amenities, as well as additional improvements throughout the Greenway. These facilities principally include:

1. Fleischman Road Trailhead: Located on the east side of Fleischman Road on the west end of the MCRG within Sector #1 (see Map 1 series).
2. Edenfield Road Trailhead: Located at the intersection of Edenfield Road and Miccosukee Road at the eastern edge of Sector #1 and the western edge of Sector #2.
3. Thornton Road Trailhead: Located at the intersection of Thornton Road and Miccosukee Road within Sector #2.
4. Crump Road Trailhead: Located on the west side of Crump Road on the east end of the MCRG within Sector #4.

There are currently 14.5 miles of maintained multi-use trails on the MCRG. A multi-use main (or "trunk") trail approximately 7.5 miles long extends from one end of the Greenway to the other, and there are several smaller loop and parallel trails in various areas of the Greenway. These trunk trails are all old farm roads. The trunk trail is approximately 10-12' wide, and is designated as a multi-use trail. As of October 2011, approximately 2.5 miles of this trunk trail had been rebuilt and stabilized by the application of a foundation of crushed gravel rock and an overlay of finely-crushed oyster shells, creating a crowned, smooth, erosion-resistant trail surface accessible to users with mobility limitations.

At this time, the majority of the recreational use of the Greenway is concentrated in Sectors 1 and 2, including the areas accessible from the Edenfield and Thornton Road trailheads. The area accessible from the Edenfield trailhead has a mix of uses, including walking dogs, bicycling, hiking, running, kite flying, picnicking, and other intermittent day uses. The usage in and near the area accessible from the Thornton Road parking lot is similar with the addition of relatively heavy equestrian usage.

Both the Fleischman Road and Crump Road trailheads on the western and eastern ends of the Greenway, respectively, are experiencing increased use as well. These trailheads do not provide immediate access to any large open fields that the Edenfield and Thornton Road trailheads provide. Use of these trailheads is currently preferred by hikers, runners, bicyclists, and equestrians, with relatively heavy equestrian usage originating at the Crump Road trailhead as well.

Existing Land Uses

The existing land use north of the Greenway is currently vacant, whereas a mix of existing single-family, higher density residential developments, and vacant land uses are located on the south side of the Greenway(see Map 7). Adjacent vacant lands are primarily rural in nature, consisting of a mix of forested areas and open pastures.

Future Land Uses

The Greenway itself is designated as Recreation/Open Space on the Future Land Use Map within the *Tallahassee – Leon County Comprehensive Plan*. The current land use of the Greenway is consistent with this document (see Appendix L).

The north side of the Greenway has a mix of Future Land Use designations, including a large area to the northwest designated as Planned Development, a large area designated Rural to the east, and smaller area designated Suburban in between (see Map 8).

The south side of the Greenway has a mix of Future Land Use designations, including Residential Preservation, Planned Development, Urban Residential – 2, Suburban, and Rural with a Residential Preservation Overlay.

Two large proposed developments are currently being planned for the now-vacant area north of the Greenway currently designated as Planned Development. The proposed “Canopy Project” is a mixed-use development on the north side of the west end of the Greenway. It is approximately 246 acres in size. An approved development agreement between the property owner and the City of Tallahassee provides that the City will extend Welaunee Boulevard through this property to its eastern boundary.

An adjacent 428-acre parcel to the east of the Canopy Project was purchased from Powerhouse, Inc. in 2006 by the City of Tallahassee for the purpose of expanding the City’s electrical transmission system. This property has a land use designation of Planned Development, and is currently being designed by the City of Tallahassee to be a Planned Unit Development. A master stormwater plan has been developed for this area, and the City of Tallahassee’s intentions at this time are to sell this property for future development.

Easements

There are at least 32 known local government-owned easements and five privately-owned easements located on or adjacent to the MCRG. These easements are identified in Table 3, and indicated (where previously mapped) on Map 10.

The Florida Gas Transmission Co., Inc. owns and operates a natural gas pipeline that crosses the Greenway via a private utility easement in the proximity of Edenfield Road.

There are two access easements. A perpetual access easement for pedestrian ingress and egress to and from the Hickory Hill cemetery exists as part of the warranty deed between Powerhouse, Inc. and the Trust for Public Land. This is referred to in that deed as the "Cemetery Easement." Another access easement known as the "Church Easement" is intended to provide vehicular and pedestrian access between the property owned by the Testarina Primitive Baptist Church and the proposed northerly extension of Arendell Way (the final location of which has not yet been determined).

Four recorded road easements for vehicular and pedestrian ingress and egress and underground utilities are located within the Greenway in various locations (See Map 11-c). These easements, established in the deed between Powerhouse, Inc. and the Trust for Public Land (see Appendix B), are intended for the extension of Edenfield, Arendell, and Dempsey Mayo roads north across the Greenway to the proposed Welaunee Boulevard extension. The fourth easement is located east of Miles Johnson Road, and is intended to provide a location for the crossing of the easterly extension of Shamrock Road South from Centerville Road to the eastern side of the intersection of Interstate 10 with U.S. 90 (Mahan Drive).

The four recorded road easements, embedded in the set of warranty deeds that conveyed the Greenway property in 1998 from Powerhouse, Inc. (now known as TOE2, Inc.) to the State via the Trust for Public Land, allow vehicular and pedestrian ingress and egress and underground utilities, over, across, and under each parcel of land upon which they are located. They are identified in the deed as Easements A-1(a), A-1(b), A-1(c), and A-1(d). The latter is known as the "Shamrock Easement."

These easements currently have varying widths as illustrated in Map 10C. The Shamrock Easement spans a large area at present, but it can be considered as a target area within which a final 150'-wide road easement will be permanently identified, surveyed, and recorded. The respective final maximum widths of Easements A-1(a), A-1(b), A-1(c), and A-1(d), once surveyed and recorded, will be 224', 100', 100', and 150', respectively.

Table 3. Known Intersecting or Adjacent Easements.

No.	Easement Type[4]	Easement Number	Book	Page	Grantee
1.	Access	3894	1476	699	City of Tallahassee
2.	Access	3895	1376	485	City of Tallahassee
3.	Access[5]		R2175	468	Trust for Public Land
4.	Access[6]		R2175	469	Trust for Public Land
5.	Conservation*	218	2137	1880	Leon County
6.	Drainage	217	110	493 A	City of Tallahassee
7.	Drainage	219	110	493 B	City of Tallahassee
8.	Drainage	4146	110	493 C	City of Tallahassee
9.	Drainage	268	12	46	Leon County
10.	Drainage	279	1794	1250	Leon County
11.	Drainage	280	1803	2226	City of Tallahassee
12.	Drainage*	8929	1896	1343	Leon County
13.	Drainage*	8930	1896	1346	Leon County
14.	Drainage*	8931	1896	1352	Leon County
15.	Drainage*	8932	1896	1349	Leon County
16.	Drainage*	8933	1896	1358	Leon County
17.	Drainage*	8934	1896	1355	Leon County
18.	Drainage*	10092	2945	2006	Leon County
19.	Drainage*	11257	3450	607	City of Tallahassee
20.	Electric	269	12	46	Leon County
21.	Electric	286	2122	1130	City of Tallahassee
22.	Electric	3891	1376	490	City of Tallahassee
23.	Electric	3908	2122	1130	City of Tallahassee
24.	Electric	4148	2122	1130	City of Tallahassee
25.	Electric	8942	2122	1116	City of Tallahassee
26.	Electric*	11255	3450	627	City of Tallahassee
27.	Electric	11827	3625	1230	City of Tallahassee
28.	Electric*	11849	3630	800	City of Tallahassee
29.	Electric	13632	4095	1510	City of Tallahassee
30.	Natural Gas		240	117	Florida Gas
31.	Stormwater/Misc.*	14058	4237	650	City of Tallahassee
32.	Utility	3905	1476	699	City of Tallahassee
33.	Utility*	14057	4237	669	City of Tallahassee
34.	Road Easement A-1(a)				TOE2, Inc.
35.	Road Easement A-1(b)				City of Tallahassee
36.	Road Easement A-1(c)				City of Tallahassee
37.	Road Easement A-1(d)				Powerhouse, Inc.

[4] Easements adjacent to the Greenway are marked with an asterisk(*).
[5] "Church Easement" to provide vehicular and pedestrian access between the property owned by the Testarina Primitive Baptist Church and the proposed northerly extension of Arendell Way
[6] Allows pedestrian access to the Hickory Hill Cemetery.

Use of the Property

The original Preservation 2000 land acquisition proposal submitted to FDEP by the Trust for Public Land in 1997 described the project as a linear park. The Agenda Certificates from the February 24, 1998 and March 10, 1998 meetings of the Trustees described the project as a greenway. These items both described planned uses including picnicking, hiking, biking, equestrian activities, boardwalks, nature trails, and interpretative displays. The current use of the property is Single Use/Recreation – Multi-Use Trails.

Leon County will not develop any other uses of the Greenway that would violate the intention of creating a "passive" or "resource-based" linear park and greenway.

Impact Assessment of Planned Uses

Impacts on the Greenway and its resources and users from its uses will vary. The two major impacts experienced to date by users of the Greenway include those from unleashed dogs (uses not allowed on the Greenway), vehicular traffic entering and leaving parking areas, and some trail conflicts.

The Greenway may present several potential impacts on adjacent properties from existing and planned uses. These impacts may include smoke and/or fire from prescribed burning activities and noise, other potential nuisances from recreational uses, and exposure to wild animals. Other expected impacts not directly associated with planned uses include stormwater following extreme storm events, either originating within the Greenway or flowing across the Greenway from adjacent areas.

Some impacts on the Greenway from nearby and adjacent neighborhoods and other areas may include potential biological nuisances, including feral domestic animals and exotic vegetation, and increased usage of the Greenway.

All future facilities will be designed and constructed using best management practices and low impact development techniques where applicable and appropriate to avoid impacts to renewable or nonrenewable resources, and to mitigate those which cannot be avoided (e.g., flooding). All federal, state, and local permit and regulatory requirements will be met in the development of all improvements.

Public Involvement

<u>Public Meetings</u>

[*this information will be provided at a later date*]

Advisory Group

Section 259.032(10)(b), Florida Statutes, requires an advisory group composed, at a minimum, of representatives of the lead land managing agency, co-managing entities, local private property owners, the appropriate soil and water conservation district, a local conservation organization, and a local elected official, to provide input into the management plan (for parcels over 160 acres).

In accordance with Sec. 259.032(10(b), F.S., the Miccosukee Canopy Road Greenways Citizen's Advisory Committee (CAC) was created by an enabling Resolution adopted August 17, 2010 by the Leon County Board of County Commissioners (BCC). The CAC was to participate in the update and review of the Greenways' Management Plan, collect public input, and make final recommendations regarding any modifications to the Management Plan to the BCC for submittal to the State.

The CAC consists of 15 appointed members (listed alphabetically by last name):

- Akin Akinyemi, Local Elected Official
- Robin Birdsong, Florida Department of Environmental Protection – Office of Greenways and Trails
- Brian Corbin, Local Private Property Owner
- Thelma Crump, Local Private Property Owner
- Brian Desloge, Local Elected Official[7]
- Julian Dozier, Local Private Property Owner
- Tabitha Frazier, Leon Soil and Water Conservation District
- Steve Hodges, Tallahassee – Leon County Planning Department (co-managing entity)
- Zoe Kulakowski, Local Private Property Owner
- Jay Liles, Local Conservation Organization
- Rob Lombardo, Friends of the Miccosukee Canopy Road Greenway
- Scott Mitchell, Local Private Property Owner
- Tony Park, Leon County Department of Public Works (lead land managing agency)
- Stan Rosenthal, Leon County Agricultural Extension Service (co-managing entity)
- Chris Vice, Local Private Property Owner
- Don Whitehead, Local Private Property Owner
- Staff: Leigh Davis, Leon County Public Works

The terms of these members expire upon completion of the Miccosukee Canopy Road Greenways Management Plan and its acceptance by the Board.

The members of the advisory group met 14 times from March 2011 to January 2012 in order to provide input to the management plan. Meeting minutes and other related materials (e.g., meeting advertisements) are provided in this Plan in Appendix O).

[7] County Commissioner Desloge was appointed to the CAC by the Leon County Board of County Commissioners on December 13, 2011 as a replacement for Commissioner Akinyemi.

IV. MANAGEMENT ISSUES, GOALS, and OBJECTIVES

Goals and Objectives

Expanded management plan requirements were created by Senate Bill 542 in 2008. The intention of these requirements was to standardize and quantify planning for conservation land management across all managing agencies to the greatest extent possible, thereby making efforts to measure performance and aggregate data far more efficient.

Section 253.034(5), F.S., requires all conservation land management plans to include eight common overarching goals. The statute also requires that each goal category be further segmented into one or more measureable objectives. An interagency working group developed a set of 32 standardized, quantifiable "core" objectives applicable to most every management unit within the State's inventory of conservation lands. (Additional measurable objectives may be added at the managing agency's discretion.)

Objectives are typically categorized as either short-term (two years) or long-term (ten years). These common goals and "core" objectives must be included in every management plan even if certain goals/objectives are identified as "Not Applicable" for certain management units. Over the course of the ten-year planning horizon, these objectives are accomplished through a series of customized activities enumerated in the management plan.

The goals and objectives presented herein are intended to guide the protection, enhancement, maintenance, and education of public uses of the Greenway. Implementation of these goals and objectives will be accomplished as funding resources become available.

The goals and objectives are also intended to be consistent with State of Florida land conservation, management, and access goals, including improving and expanding recreational, educational, and cultural opportunities, protecting and restoring the integrity of natural and cultural resources, expanding healthy transportation alternatives, and connecting people and communities to enhance economic development.

Habitat Restoration and Improvement

Goal 1: Improve natural communities and natural habitat.

Objective 1.1 [Core]: Prescribe burn 40 acres per year. [2012-2022]

Activity 1.1.1: Utilize prescribed burning in appropriate upland areas as a management tool as prescribed by the Forest Stewardship Management Plan (Appendix F) and as approved by the County Forester. [2012-2022]

Objective 1.2 [Core]: Maintain 200 acres per year within target fire return interval. [2012-2022]

Activity 1.2.1: Remove/thin overgrown understory vegetation and/or undesirable successional species where necessary as prescribed by the Forest Stewardship Management Plan (Appendix F) and as approved by the County Forester. [2012-2022]

Objective 1.3 [Core]: Conduct habitat/natural community improvement on 350 acres. [2012-2022]

Activity 1.3.1: Implement management guidelines and recommendations as prescribed by the Forest Stewardship Management Plan (Appendix F) and as approved by the County Forester. [2012-2022]
Activity 1.3.2: Conduct wildlife surveys on a regular basis. [2012-2022]
Activity 1.3.3: Remove/thin overgrown understory vegetation and/or undesirable successional species where necessary. [2012-2022]
Activity 1.3.4: Revegetate areas where necessary, including those prone to erosion from natural or manmade activities, with native tree, shrub, and/or groundcover species. [2012-2022]
Activity 1.3.5: Plant visual buffers utilizing native plants where necessary to shield undesirable vistas. [2012-2022]
Activity 1.3.6: Establish an area for herbaceous plants, shrubs, or trees intended to attract native birds and butterflies. [2012-2022]
Activity 1.3.7: Continue established planting and mowing strategy on fields currently being utilized for game and non-game wildlife food plots. [2012-2022]
Activity 1.3.8: Monitor the progress of wildlife habitat restoration efforts to evaluate project success and determine additional management activities needed. [2012-2022]
Activity 1.3.9: Coordinate with adjacent landowners to enhance natural communities. [2012-2022]
Activity 1.3.10: Monitor the health of timber for adverse conditions and treat infestations as necessary, which may include commercial harvesting. [2012-2022]

Objective 1.4 [Core]: Conduct habitat/natural community restoration on zero acres to reclaim the ecological function of the natural communities. [2012-2022]

Not applicable (refer to Objective 1.3). The Greenway in its entirety has been disturbed at various times, and habitat/natural community restoration, while a product of prescriptive fire, is not a core objective. The objective of habitat/natural communities management within the planning period of this Plan is improvement, not restoration.

Objective 1.5 [Core]: Conduct timber harvest (mechanical thinning of stands) for the purpose of habitat restoration on 0 acres. [2012-2022]

Activity 1.5.1: Monitor the health of timber for adverse conditions and treat infestations as necessary, which may include timber harvesting as necessary under the guidance of the Forest Stewardship Plan. [2012-2022]

Public Access and Recreational Opportunities

Goal 2: Provide public access and passive/resource-based recreational opportunities.

Objective 2.1 [Core]: Maintain existing public uses, access, and recreational facilities to provide for a daily carrying capacity of 2,000 visitors/day. [2012-2022]

Activity 2.1.1: Maintain existing trails, trailhead facilities, and other improvements and amenities. [2012-2022]

Activity 2.1.2: Enforce prohibited uses and activities and other local and state laws in cooperation with local law enforcement authorities. [2012-2022]

Objective 2.2 [Core]: Develop additional public access and recreational opportunities, in accordance with the County's access policy and other applicable laws and regulations, to provide for an daily carrying capacity of 2,000 visitors/day. [2012-2022]

Activity 2.2.1: Monitor visitation rates at public access locations along the Greenway. [2012-2022]

Activity 2.2.2: Develop design, access, construction, and maintenance criteria for existing and new maintained trails. [2012-2022]

Activity 2.2.3: Encourage and support fee or less than fee simple acquisition of additional adjacent conservation areas with public access rights as they may become available. [2012-2022]

Activity 2.2.4: Increase non-vehicular connectivity to the Greenway from adjacent greenways, parks, and residential areas, consistent with the *Tallahassee – Leon County Greenways Master Plan*, the *Regional Mobility Plan*, the statewide *Greenways and Trails Plan*, and other related planning efforts. [2012-2022]

Objective 2.3 [Core]: Continue to provide four (4) interpretive/education programs. [2012-2022]

Activity 2.3.1: Continue to provide trailhead kiosks (Edenfield, Thornton, and Crump Road trailheads) and information signs (Hickory Hammock) for significant environmental, historical, or other related features. [2012-2022]

Objective 2.4 [Core]: Develop four (4) new interpretive/education programs. [2012-2022]

Activity 2.4.1: Conduct an annual public event at the MCRG. [2012-2022]
Activity 2.4.2: Work with the County's Public Information Office and other public and/or tourist information organizations to promote awareness of the County's greenways and parks system, to educate users and citizens about its management, allowed uses, and rules, and to encourage the use of greenways as a public health benefit. [2012-2022]
Activity 2.4.3: Partner with local community leaders, civic organizations, and businesses to promote greenway activities in accordance with Leon County's *Use and Scheduling of Parks & Recreation Facilities* policy. [2012-2022]
Activity 2.3.4: Coordinate with the County's Public Information Office and the Cooperative Extension Service to provide public education on the use and impacts of exotic invasive plant species. [2012-2022]

<u>Hydrological Preservation and Restoration</u>

Goal 3: Protect, restore, and maintain existing natural hydrological features and functions.

Objective 3.1 [Core]: Conduct a site assessment to identify potential hydrology restoration needs. [2012-2022][8]

Activity 3.1.1: Update the existing site assessment as necessary to identify potential hydrology restoration needs on the Greenway. [2012-2022]

Objective 3.2 [Core]: Restore natural hydrological condition and functions as determined by site assessment in Objective 3.1. [2012-2022]

Activity 3.2.1: Continue to protect wetlands and floodways on the Greenway. [2012-2022]
Activity 3.2.2: Coordinate with other agencies to monitor water quantity and quality on the Greenway. [2012-2022]
Activity 3.2.3: Coordinate with other departments and agencies to address cross-Greenway flooding and its downstream impacts on developed areas. [2012-2022]
Activity 3.2.4: Coordinate with other departments and agencies to protect and monitor ecological health of Dove Pond. [2012-2022]

[8] A site assessment of water features was conducted as part of a Natural Features Inventory for the MCRG published in January 2000.

Sustainable Forest Management

Goal 4: Manage timber resources for sustainability and implement best forest management practices.

Objective 4.1 [Core]: Continue ongoing prescribed burning, restoration and reforestation, and other timber stand improvement activities and goals. [2012-2022]

Activity 4.1.1: Continue implementation of updated Forest Stewardship Management Plan (Appendix F). [2012-2022]

Objective 4.2 [Core]: Maintain the existing process of conducting stand descriptions and create a GIS-based forest inventory, utilizing the current forest inventory and including all known physical, wildlife, and cultural and archeological features. [2012-2022]

Activity 4.2.1: Create and/or update a GIS-based inventory of forest resources every five years. [2012-2022]
Activity 4.2.2: Partner with other agencies to assess, monitor, and manage forested and other areas of the MCRG. [2012-2022]
Activity 4.2.3: Conduct annual inventory on 350 forested acres. [2012-2022]

Exotic and Invasive Species Maintenance and Control

Goal 5: Manage exotic and invasive plant and animal species and conduct needed maintenance and control activities.

Objective 5.1: Determine total acres infested by exotic invasive plant species. [2012-2022]

Activity 5.1.1: Assess and monitor exotic invasive plant species, especially during the growing season, to evaluate the efficacy of control efforts and to identify subsequent needs. [2012-2022]

Objective 5.2 [Core]: Annually treat 25 acres of exotic invasive plant species as defined by Florida Exotic Pest Plant Council (FEPPC) Category I and Category II invasive exotic plant species. [2012-2022]

Activity 5.2.1: Remove exotic invasive plant species as necessary and appropriate. [2012-2022]
Activity 5.2.2: Spot-treat (mechanical/chemical treatments) FEPPC Category I and Category II exotic invasive plant species as needed. Facilitate removal of young plants during the growing season to maximize the benefit of eliminating plants prior to the production of fruits and seeds. [2012-2022]
Activity 5.2.3: Establish a regular exotic invasive plant species removal public event identifying species and locations. Consult County Forester for timing, species, location, and process for removal. [2012-2022]
Activity 5.2.4: Maintain records of exotic invasive plant species occurrences and any management or corrective actions. [2012-2022]

Objective 5.3 [Core]: Determine total number of individual species of exotic invasive/ nuisance animal species known to occur within the management unit. [2012-2022]

Activity 5.3.1: Assess and monitor exotic invasive animal species, especially during the growing season, to evaluate the efficacy of control efforts and to identify subsequent needs. [2012-2022]

Objective 5.4 [Core]: Implement control measures on exotic invasive/nuisance animal species as determined by assessment in Objective 5.3. [2012-2022]

Activity 5.4.1: Monitor Greenway for presence of exotic invasive/nuisance animal species. [2012-2022]
Activity 5.4.2: Maintain records of total annual number of exotic invasive/nuisance animal species and employ at least one control method per species. [2012-2022]
Activity 5.4.3: Consult Florida Fish and Wildlife Conservation Commission for the recommended management, including removal, of any exotic invasive/nuisance animal species found on the Greenway. [2012-2022]
Activity 5.4.4: Work with neighborhood associations to communicate need to ensure that domesticated dogs are secured on homeowner's property or on a hand-held leash when they are on the Greenway. [2012-2022]
Activity 5.4.5: Maintain records of nuisance animal species occurrences and any management or corrective actions. [2012-2022]

Capital Facilities and Infrastructure

Goal 6: Maintain the Greenway as a linear park supporting passive/resource-based recreation and a multi-use trail corridor with historical vistas while providing public access and amenities and protecting cultural and natural resources.

Objective 6.1 [Core]: Maintain four (4) existing facilities, zero (0) miles of existing roads, and 14.5 miles of existing multi-use trails.[9] [2012-2022]

Activity 6.1.1: Monitor and maintain 14.5 miles of existing multi-use trail for visitor impacts. [2012-2022]
Activity 6.1.2: Maintain facilities for visitor impacts. [2012-2022]
Activity 6.1.3: Maintain all trails for environmental impacts and potential safety issues, including mowing, stabilization, and repairs. [2012-2022]
Activity 6.1.4: Maintain site security and provide enforcement of all existing applicable ordinances and policies addressing County parks and greenways and all activities thereupon. [2012-2022]

[9] For the purposes of this Management Plan, the term "facility" refers to trailheads, including parking areas and any amenities such as water sources, restrooms, or other features.

Objective 6.2 [Core]: Construct zero (0) new facilities, zero (0) miles of new roads, and one (1) mile of new trails. [2012-2022]

Activity 6.2.1: Coordinate with established user groups, developers, neighborhoods, and local government as adjacent new development or redevelopment is proposed and implemented so as to determine potential uses, impacts, and need for new or expanded facilities and/or trail connectors. [2012-2022]

Activity 6.2.2: Determine available land and fiscal resources necessary to meet expressed needs and required maintenance. [2012-2022]

Activity 6.2.3: Provide new facilities and trails based on allowable space, impact on vistas and natural features, and available funding. [2012-2022]

Objective 6.3 [Core]: Improve or repair four (4) existing facilities, zero (0) miles of existing roads, and 14.5 miles of existing trails. [2012-2022]

Activity 6.3.1: Improve or repair Fleischman, Edenfield, Thornton, and Crump trailheads. [2012-2022]

Activity 6.3.2: Improve or repair maintained multi-use trail system. [2012-2022]

Activity 6.3.3: Install location, directional, and mileage markers and other identifying signage on all trails. [2012-2022]

Activity 6.3.4: Install interpretative signage for selected cultural and natural features. [2012-2022]

Activity 6.3.5: Any new trails or connectors will conform to existing design criteria. [2012-2022]

<u>Cultural and Historical Resources</u>

Goal 7: Preserve and protect all archaeological, cultural, and historic sites/resources located on the MCRG.

Objective 7.1 [Core]: Ensure that all known archeological and historical sites/resources are recorded with the Florida Division of Historical Resources (DHR), Florida Master Site File (FMSF).

Activity 7.1.1: Ensure that all known sites are recorded with DHR's FMSF. [2012-2022]

Activity 7.1.2: Report any new previously unknown sites to DHR's FMSF. [2012-2022]

Objective 7.2 [Core]: Monitor three known, previously recorded sites and send updates to FMSF as needed. [2012-2022]

Activity 7.2.1: Ensure that trail manager has participated in the Archaeological Resources Monitoring (ARM) Training for state land managers. [2012-2022]

Activity 7.2.2: Send any updates on recorded sites to the FMSF as necessary. [2012-2022]

Objective 7.3 [Core]: Bring all recorded sites in baseline report into a good condition. [2012-2022]

Activity 7.3.1: Determine level of protection necessary to protect all known archeological and historical sites/resources (e.g., *in situ*, stabilization, excavation, etc.). [2012-2022]

Imperiled Species[10] Habitat Maintenance, Enhancement, Restoration or Population Restoration

Goal 8: Protect all habitats and occurrences for all known or possible imperiled species.

Objective 8.1 [Core]: Maintain existing baseline imperiled species occurrence inventory list. [2012-2022]

Activity 8.1.1: Continue coordinating with Florida Natural Areas Inventory (FNAI) and the Florida Fish and Wildlife Conservation Commission (FFWCC) to maintain an accurate inventory list. [2012-2022]

Objective 8.2 [Core]: Develop monitoring protocols for one (1) imperiled species and its habitat. [2012-2022]

Activity 8.2.1: Develop monitoring protocols for imperiled species and their habitats if discovered on the Greenway. [2012-2022]

Activity 8.2.2: Educate management staff and public of presence of non-data sensitive imperiled species as necessary to presence of and monitoring for imperiled species. [2012-2022]

Objective 8.3 [Core]: Implement monitoring protocols for one (1) imperiled species. [2012-2022]

Activity 8.3.1: Report any and all known occurrences to FNAI. [2012-2022]

[10] For the purposes of this Management Plan, the term "Imperiled Species" refers to plant and animal species that are designated as Endangered, Threatened, or a Species of Special Concern by the Florida Fish and Wildlife Conservation Commission, or that are designated as Endangered or Threatened by the U.S. Fish and Wildlife Service. This designation is also commonly known as "listed species."

Management Authority

By virtue of the 50-year (2001-2050) sublease between FDEP and Leon County, the Leon County Division of Parks and Recreation will manage and maintain the Greenway with volunteer assistance provided by the Friends of the Miccosukee Canopy Road Greenway. Management plans will be developed with the assistance of the Leon County Extension Service for forestry, wildlife, and agricultural resources (grasslands), aided by the Division of Parks, Tallahassee – Leon County Planning Department, and other agencies as necessary.

Defending Title

There are currently no known encroachments on the MCRG. The Greenway boundary is fenced, and will be further identified through signage and protected from encroachment by use of vegetation, natural barriers, or additional fencing if necessary.

If any encroachment problems arise in the future, a letter will be sent to the violator to resolve the encroachment problem. If the encroachment problem is not resolved by the violator, the Leon County Code Enforcement Board will be notified to initiate enforcement, which may include issuing fines to the violator.

Development

Proposed Improvements

Trails

At this time, there are no specific detailed plans to construct any new trails on the MCRG. Instead, the County has been and will continue to stabilize the trunk trail based on impacts, degree of use, and available funding.

Due to erosion and the necessity of providing access to disabled users, sections of the trunk trail, originally a dirt farm road prone to erosion and root damage from various users, is being stabilized by the application of a foundation of crushed gravel rock and an overlay of finely crushed oyster shells in order to create a crowned, smooth, “stone dust” trail surface accessible to disabled users and resistant to wear and erosion. This stabilization is intended to be completed within the footprint of the existing trail and without the unnecessary removal of any trees or other vegetation.

Since the sublease of the property in 2000, the County has received the following grants and/or funding from the State: approximately $17,000 in 2002 for information kiosks, park signs, and trail symbols; $42,025 in 2004 for trail signs (for the Miccosukee Greenway and Alford Greenway, combined); a Greenways and Trails Grant in 2006 for capital maintenance and equipment in the amount of $38,250; a Greenways and Trails Grant in 2007 for capital maintenance and equipment in the amount of $38,250 utilized for stabilizing approximately 2-miles of the trunk trail in Sector #4; and a FRDAP grant for the construction of the restroom at Edenfield Road Trailhead in the amount of $90,000.

In addition, the County has been awarded two Recreational Trails Program grants. These grants are administered by the Department of Environmental Protection, but are funded through the

Federal Highway Administration. The first matching grant was awarded in February 2010 in the amount of $100,000 (50/50 split) to stabilize approximately two miles of the trunk trail in Sector #2 (Edenfield Trailhead to Thornton Road Trailhead). The County received another RTP matching-grant in March 2011 to complete similar trail renovations between the Thornton Road Trailhead and the Argyle Lane crossing of Miccosukee Road in Sectors #2 and #3. This matching grant is in the amount of $500,000 (50/50 split).

Specific planned improvements to the trail system include (see Map 2):

- Sector #1: The trunk trail between the Edenfield Road and the Fleischman Road Trailheads will be stabilized in the future to address erosion issues, based on need and available funding. However, this portion of the Greenway will remain natural as long as possible, including limiting the construction of any new trails and the stabilization of any existing or new trails. Once stabilization is warranted, the southernmost segment of the trunk trail in this sector will be stabilized.
- Sector #2: The segment of the trunk trail between the Edenfield Road trailhead and the Thornton Road trailhead has been stabilized, and the segment of the trunk trail from the Thornton Road trailhead to the Miles Johnson Road crossing will be stabilized shortly after the completion of this Plan. No other trail improvements are planned in this sector.
- Sector #3: In a portion of Sector 3, the stabilization of the maintained trunk trail system between Miles Johnson Road and Welaunee Road eastward should be along that part of the trail closest to Miccosukee Road.
- Sector #4: No other trail improvements are planned in this sector, as the trunk trail from the Argyle Lane crossing to the Crump Road trailhead has already been stabilized.

The County will connect the existing trail system to any new multi-use trails leading to or from to the Greenway as a part of any permitted roadway or adjacent public-access open space area, and to reconnect or reroute any existing trails interrupted by any new roads or other Greenway-related improvements.

The County, in cooperation with OGT, will coordinate with the City of Tallahassee in the design of any new permitted roads, trails, trail crossings, trail access points, or any other associated improvements directly related to the City's infrastructure to ensure that these improvements are consistent with existing trails and other facilities as well as the overall intent of the Management Plan.

Leon County will work to complete construction of all improvements identified in this Plan by 2022. Funds will be identified in the annual Leon County budget as allocated by the Board of County Commissioners. These funds may also be used as a match for other grant funding sources.

Trailhead Facilities

Leon County has constructed four trailhead facilities with varying improvement and amenities, as well as additional improvements throughout the Greenway.[11] These improvements are listed in Appendix K. The facilities and their planned improvements (east to west) include:

Fleischman Road Trailhead: (West end of Sector 1.) Planned improvements to the facility include the installation of a potable water source and an information kiosk.

1. Edenfield Road Trailhead: (East end of Sector 1.) No additional planned improvements are scheduled for this facility at this time.
2. Thornton Road Trailhead: (Sector 2.) Although no planned improvements are scheduled for this facility at this time, this Trailhead may be extensively renovated within the planning horizon of this management plan, depending on the ultimate route and construction timeline for nearby roadway extensions and the status of the Arendell Way roadway easement.
3. Crump Road Trailhead: (East end of Sector 4.) Planned improvements to this facility included a potable water source, an information kiosk, and more clearly defined parking areas.

An education pavilion is contemplated at one of the trailheads in the future, but it is not currently scheduled as a capital improvement at this time. There are no plans to construct any additional trailheads on the Greenway.

Trail and Roadway Crossings

There are two existing trail crossings of Miccosukee Road. One is approximately 700' east of the intersection of Miccosukee Road and Miles Johnson Road. The other is approximately 1,300' west of the intersection of Miccosukee Road and Argyle Road. Both of these roadway crossings of the trunk trail are well-marked, with stamped and painted pavement markings, roadway and trail signage to alert drivers and trail users, post and beam fencing to manage access, and removable bollards to prevent unauthorized vehicles from entering the trail. These crossings and their improvements will be maintained for the duration of the Plan.

As previously discussed in this Plan, there are four existing road easements on the MCRG that allow roadway crossings of the Greenway (Maps 9a & 9b). Three of these easements are intended to allow the extension of Edenfield, Arendell, and Dempsey Mayo roads north of their intersections with Miccosukee Road to the proposed Welaunee Boulevard extension. The fourth easement is located on Parcel #4 east of Miles Johnson Road within Sector #3. It is intended to be the location for the extension of Shamrock Road South to the east and south (to Miccosukee Road) somewhere east of the intersection of Miles Johnson Road.

The County will coordinate with established user groups, developers, neighborhoods, and local governments as any adjacent new development or redevelopment is proposed and

[11] For the purposes of this Management Plan, the term "facility" refers to trailheads, including parking areas and any amenities such as water sources, restrooms, or other feature.

implemented so as to determine potential uses, impacts, and need for new or expanded easements, facilities, and/or trail connectors.

The County will coordinate with all parties involved in the design and construction of any road crossings to create trail segments along these new roads, and they may be provided parallel to or in lieu of paved sidewalks along any new roads intersecting the Greenway.

The County will also coordinate with the City of Tallahassee, the city/county Canopy Roads Citizens Committee, The Friends of the Miccosukee Canopy Road Greenway, and other user groups, neighborhood associations, and affected landowners to ensure that any new bicycle and pedestrian facilities associated with the design and construction of any proposed roadway(s) minimize their environmental impacts and ensure the safety of Greenway trail users.

Stormwater

Accumulations of stormwater occur naturally on an intermittent basis within basins and watersheds in the vicinity of Edenfield Road and Interstate-10 (Arvah Branch), and this stormwater flows south across the Greenway in several places. In 1994, 2000, and 2001, several storm events flooded an area of the Greenway from Dove Pond south to Miccosukee Road, affecting several subdivisions downstream of the Greenway. In 1994, stormwater from several significant storm events drained across and south of the Greenway into several residential areas south of Miccosukee Road, including the Lafayette Oaks subdivision, where 13 homes were damaged and many more were indirectly affected. Leon County Public Works built a temporary berm under emergency rule to mitigate this flooding, and subsequently completed the Pedrick Pond stormwater facility to further mitigate residential flooding.

The County will continue to coordinate with adjacent property owners and developers, as well as the City of Tallahassee, to address stormwater issues affecting the Greenway and downstream property owners. This will include monitoring the enforcement of master stormwater management plans developed for areas north of the Greenway.

Visitor Carrying Capacity Guidelines

The visitor carrying capacity of the Greenway was calculated utilizing outdoor use guidelines for resource-based outdoor recreation activities presented in *Outdoor Recreation in Florida 2000*, the Statewide Comprehensive Outdoor Recreation Plan (SCORP) created for the State of Florida by FDEP. SCORP is intended to guide government and private recreation providers toward an integrated, sustainable outdoor recreation lands system, identify state and national outdoor recreation trends and initiatives, examine and analyze existing and future outdoor recreation facility and resource needs, and establish goals and strategies to guide a statewide planning process. It is also essential towards maintaining Florida's eligibility to participate in and receive funding from the Federal Land and Water Conservation Fund program.

Easements

Any future easement requests will be coordinated through the FDEP's Division of State Lands (DSL). Any application to use state land which would result in significant adverse impact to state lands or associated resources shall not be approved unless the applicant demonstrates there is no other alternative and proposes compensation or mitigation acceptable to the Trustees, pursuant to paragraph 18-2.018(2)(i), F.A.C.

Any requested use of state land which has been acquired for a specific purpose, such as conservation and recreation lands, shall be consistent with the original specified purpose for acquiring such land pursuant to paragraph 18-2.018(2)(c), F.A.C. Applicants applying for an easement across state land which is managed for the conservation and protection of natural resources shall be required to provide a net positive benefit as defined in subsection 18-2.017(38), F.A.C.

Potential Surplus Lands

Presently, there are no any planned or existing potential surplus lands associated with this Greenway.

Prospective Land Acquisitions

If there is an opportunity to expand the boundaries of the Greenway to protect the canopy of Miccosukee Road, protect the associated scenic views and vistas, and/or to make the management of MCRG more efficient by limiting boundary changes, then the County should explore such opportunities. Of particular interest, a four-acre parcel at the easternmost end of the Greenway has been targeted for potential acquisition (the northwest corner of Crump Road and Miccosukee Road). This and any other area would be preferably acquired fee simple or through conservation easements by the State of Florida that would allow public access and management by Leon County.

Partnerships and Regional Coordination

As described elsewhere in this Plan, the MCRG is a regionally significant linear park and greenway. The County is coordinating with multiple partners, including the City of Tallahassee (COT), the State Office of Greenways and Trails (OGT), the Capital Regional Transportation Planning Agency (CRTPA), the Tallahassee – Leon County Canopy Roads Committee, the Friends of the Miccosukee Canopy Road Greenway, and others to facilitate a connected system of greenways and trails. The MCRG is a unit of the regional trails system.

Compliance with State and Local Government Requirements

This Plan will be submitted for review to the Florida Board of Trustees of the Internal Improvement Trust Fund (Trustees) through the FDEP's Division of State Lands. It is intended to comply with terms of Sublease #4259-01 between Leon County and the State Office of

Greenways and Trails as governed by Chapters 253, 259 and 260, F.S., and Chapters 62S-1, 18-2 and 18-23, F.A.C.

The format and content of this Plan are also in accordance with the State's Acquisition and Restoration Council recommendations for management plans and the model plans provided by the staff of DSL. Planned uses of the MCRG will comply with the *State Lands Management Plan's* Guidelines and Activities. Pursuant to Chapter 267, F.S., any ground-disturbing activities will be coordinated with the Division of Historical Resources.

As mandated by Section 259.032(11)(d), F.S., the managing agency will use the proceeds of any timber sales to pay for management activities. As also mandated by Section 259.037, F.S., the MCRG is included in the Annual Report to the Land Management Uniform Accounting Council (LMUAC). Leon County will consider the findings and recommendations of the Land Management review team when updating this Plan.

The *State Comprehensive Outdoor Recreation Plan* guides the development of a diverse, balanced, statewide outdoor recreation system toward meeting current and future needs. It provides the framework for a statewide comprehensive outdoor recreation planning and implementation process. Trails and greenways are fundamental components of Florida's outdoor recreation and transportation systems. The Plan is in compliance with SCORP by providing "resource-based" outdoor recreation and by enhancing any environmentally degraded areas to a more functional condition through exotic species control and maintenance.

Approval of this Plan does not constitute an exemption from complying with the rules and regulations of the appropriate local, state, or federal agencies. All development and resource alteration encompassed in this Plan is subject to the granting of appropriate permits, easements, licenses, and/or other required legal instruments.

This Plan and the use of this property as a linear park and greenway is in compliance with and is consistent with the *Tallahassee – Leon County Comprehensive Plan* (See Appendix L). This Plan and use of this property is also consistent with the *Tallahassee – Leon County Greenways Master Plan*, adopted by the City of Tallahassee and Leon County in 2004. The *Tallahassee – Leon County Greenways Master Plan* is intended to guide the identification, acquisition, development, and management of greenways within Leon County.

On-going Research and Monitoring

Monitoring the conditions of the MCRG is ongoing, as is research and implementation of resource-based recreational and natural resource management practices and standards. The Leon County Division of Parks and Recreation will continue working with the County Forester to implement the guidelines in the Forest Stewardship Management Plan (Appendix F) as well as with state agencies located in Leon County to address other monitoring and research issues regarding historical, archaeological, recreation, and floral and faunal resources.

Resource Management and Protection

Soil Management

Soil resources within the Greenway will be protected by: (1) conservation and active management of existing forest and other vegetation communities within the guidelines of the MCRG Forest Stewardship Management Plan; (2) limiting development within the Greenway to passive recreational facilities; and (3) strict adherence to all permit requirements during construction of any recreational facilities.

Management activities will follow generally accepted best management practices to prevent soil erosion and conserve soil and water resources on site, and all development and/or improvement projects will also be duly permitted. Prior to future construction projects, erosion and sedimentation control features will be installed as required by Leon County's development ordinances to prevent sediments from moving beyond the project limits. These measures will include at a minimum the installation and use of silt fences and/or hay bales where necessary. These controls will be monitored and remain in place until permanent vegetative cover is established.

All severe and significant grades will be protected from intensive development by placement of these features into conservation easements as required by Leon County's development ordinances.

Hydrology/Water Management

Surface water management is regulated by the City of Tallahassee and Leon County, with additional planning and regulatory oversight provided by the Northwest Florida Water Management District and FDEP.

Future construction projects will meet all federal, state, and local permit and regulatory requirements. As indicated for soils, erosion controls are required for all significant construction activities. The use of these erosion controls will help prevent soil from being eroded into any water bodies or water courses within the Greenway.

Natural Communities Management

A Forest Stewardship Management Plan (FSMP) has been prepared for the Greenway by staff from the University of Florida/Leon County Cooperative Extension Service and the Florida Wildlife Commission. The FSMP includes a complete description of existing natural resources, including natural communities and exotics, and Best Management Practices (BMPs) and schedules for protecting and enhancing these communities. The FSMP is included in this Plan as Appendix F.

The current flora and fauna of the site is mostly the result of previous land uses and land management activities. The use of prescriptive fire, reforestation of planted pine monocultures with native species, and the control of exotic invasive plants are the main tools that will be used by the County to help return forested areas of the Greenway towards a more native mix of plant and animal species.

Forest Resources Management

The FSMP identifies 21 individual "stands" for management purposes (Maps 4a & 4b). These include a mix of different forested areas and open fields. Each stand is described as to its use, composition, features, and management issues. Specific management recommendations and timetables are also identified in the FSMP.

Silvicultural activities will involve maintaining a natural diversity of plant communities. Longleaf pine, which is native to the Red Hills of Florida and Georgia, will be re-established where feasible on selected uplands. Invasive exotics will be managed wherever they occur.

Prescribed fire and selection cutting will be the main management tools in upland stands. Herbicide treatments and hand planting will also be utilized where other methods are inadequate.

The gathering and taking of firewood is not permitted on the Greenway.

Fire Management

Prescribed fire is an important tool in Florida for managing the aesthetic values of natural landscapes in addition to managing fuels, wildlife habitat, and native plant species. The general management procedures for the use of prescribed fire are indicated below; more details can be found in the FSMP.

In cases where prescribed fire is recommended, the prescribed fire boss (manager) will determine beforehand if it can be done safely. This will become increasingly crucial as adjacent areas become more populated and conflict with smoke and escaped fire becomes more possible (likely). Smoke-sensitive areas include Interstate-10, Miccosukee Road, Crump Road, and neighborhoods in close proximity to the Greenway. It is critical that adjacent or nearby residential neighborhoods be contacted by County staff through existing neighborhood associations and/or targeted public relations efforts to educate residents on the possibility of smoke and the benefits of the use of prescribed fire.

A forestry consultant will work with County staff on any prescribed burning efforts in order to avoid destroying many years of growth. Staff must also secure authorization from the Florida Forest Service prior to prescription burning.

If prescribed fire is recommended and can be conducted safely, a burn plan will be completed prior to the prescribed burn. Firelines will be established and maintained around the perimeter of the Greenway, using natural breaks, roads, and trails where possible. Cutting firelines in wet areas will be prohibited, as this could be damaging to wetlands. All ground disturbing activities will be conducted in accordance with policies established by the Florida Department of State, Division of Historical Resources. Fireline establishment and maintenance information and services can be obtained from the Florida Forest Service.

If prescribed fire cannot be safely conducted, then other measures (e.g., mitigation mowing) should be utilized in place of fire to control fuel buildup.

Mineral Resources Management

There are no known minerals of commercial importance within the MCRG boundary.

Native Species Management

The following general guidelines for wildlife management are summarized from Appendix F. A more detailed description of these guidelines, including recommendations for specific stands on the Greenway, is found in that Appendix.

The maintenance of naturally occurring plant and animal communities by the use of prescribed fire on upland sites will benefit both native animal and plant species. Guidelines from the Forest Stewardship Management Plan that will benefit native species include:

- Maintain upland stands through the use of early growing season (February-June) prescribed fires on a two to three year frequency.
- Establish permanent openings at the interface between upland and wetland communities as well as in specified areas within upland stands. Portions of these openings will be planted to various wildflowers, small grains, and legumes to provide a supplemental food sources for resident wildlife species while enhancing aesthetics and wildlife viewing opportunities. Maintenance of the unplanted portions of the openings will be accomplished by mowing and seasonal soil disturbance.
- Mowing of all areas except lawn fields, parking areas, and trails should not be conducted September through February to avoid disruption of ground nesting species, such as turkey and quail. This applies to.
- Conduct fireline maintenance during the winter months when soil disturbance encourages the production of beneficial native food plants such as partridge pea, milk pea, and beggarweed.
- Reestablish under-stocked upland sites to longleaf pine by natural regeneration with reinforcement plantings. This species of pine will be most conducive to ensuring adequate forage production through the use of prescribed fire.
- Leave as many standing snags as possible as a part of reforestation efforts standing for the benefit of cavity nesting species.
- Plant non-invasive native tree and/or shrub species to the maximum extent if intended for shading, screening, or beautification purposes.

Listed Species Management

Monitoring of native vegetation and animal species, including migratory birds and other listed species that may be found on the Greenway, will be conducted by the managing entity as part of other related management tasks, with assistance from the City of Tallahassee and the State of Florida, nongovernmental conservation and other organizations, and individual volunteers.

Invasive Non-native Species Management

Plants

Found in many areas of Leon County, Chinese Tallow trees have been identified within the Greenway, and their removal would be consistent with state standards and practices for conservation and other state lands. The common treatment is to inject these trees with Garlon, a systemic herbicide. State grants will be pursued in order to fund these projects.

Kudzu and Cogon grass are invasives that have been identified within the Greenway and on adjacent properties. The City of Tallahassee in cooperation with Leon County and the State of Florida used sheep approximately a decade ago in an innovative management project to control the growth of these invasive plants. The pilot project ran for approximately five years. A flock of approximately 500 to 1,000 sheep was used for several years to eliminate selected vegetation at Tom Brown Park, the Lafayette Heritage Trail, the Klapp-Phipps Greenway, the western portion of Alfred B. Maclay State Gardens, the Miccosukee Canopy Greenway, and under City electric transmission lines. Kudzu is managed on the Greenway at this time by the use of systemic herbicides and contract labor.

Animals

Should a sighting of a non-native and/or feral animal occur, the appropriate agency must be notified by management personnel and arrangements made to track and remove the animal. Nuisance animals shall be removed by the appropriate authorities and not by users. The public is not allowed to remove or harm species found on the property.

Management will work with law enforcement and other local or state authorities such as the Leon County Sheriff's Department, Leon County Animal Control Division, and the Florida Fish and Wildlife Conservation Commission for removal of wild hogs, feral cats, and other non-native animals. Fire ants will be controlled with pesticides by individual mound or broadcast treatments as appropriate.

Archaeological, Historical, and Cultural Resource Management

The management of the Hickory Hill Cemetery is the responsibility of the three churches that own this property. They will be allowed access to this site across the MCRG consistent with the management of the remaining portions of the Greenway, the existing pedestrian easement allowing access to this site, and any applicable County ordinances and/or policies.

Any additional known or discovered archaeological, historical, or cultural resources on the Greenway will be preserved in situ and protected consistent with the Department of State's Division of Historical Resources. Signage will placed specifying that disturbance of any cultural sites or removal of artifacts shall be prohibited, unless prior authorization has been obtained from the Division of Historical Resources. These signs shall state that disturbing sites is a criminal offense and include a telephone number to report vandalism. Any ground-disturbing activities will be in accordance with the State's Division of Historical Resources.

Scenic Resources Management

The Greenway borders a protected tree canopy zone preserved by County ordinance for its historic and scenic significance. The Greenway received an Historic Preservation Award from the Tallahassee – Leon County Historical Preservation Society in 1999 for outstanding achievement in rural landscape preservation.

The preservation and management of scenic resources on the MCRG, including the historical vistas along Miccosukee Road that were cited as part of the reason for the acquisition of this property, will be accomplished by strict enforcement of this Management Plan, and by carefully reviewing the siting of any improvements or other management activities for potential impacts to existing views.

General guidelines for conserving and protecting scenic and historic views and vistas include:

- Maintain or restore original landforms and historic landscapes wherever possible.
- Remove or restore unattractive scenic elements when they deteriorate or become degraded.
- Maintain or add to areas of vegetation, especially native vegetation, through scenic and conservation easements or landscaping plans to provide interest, encourage the presence of native wildlife, blend structures into the site, and obscure unattractive elements.

Specific guidelines for conserving and protecting scenic and historic views and vistas when designing new improvements include:

- Site structures and other Greenway-related developments away from public viewpoints, including Miccosukee Road, in inconspicuous locations if possible to maintain existing sightlines and scenic views.
- Design buildings and other structures to an appropriate scale (several small buildings vs. one very large building) compatible with the landscape.
- Cluster and orient any structures and other Greenway-related developments to preserve views and open space, and to provide visual harmony and compatibility.
- Use forms, colors, and materials compatible with the landscape.
- Screen unattractive elements with vegetation or other appropriate materials.
- Ensure that any new roads crossing the MCRG within designated easements are properly sited and screened with vegetation to preserve or mitigate scenic landscapes.
- Minimize light pollution of night skies by using the least-polluting light sources available for street lighting, parking lots, restroom facilities, etc. All fixtures should be properly shielded and aimed at the ground.

Leon County, with assistance as necessary from the Friends of the MCRG, will coordinate with other jurisdictional agencies and departments so that scenic and historical vistas are not negatively impacted by any development adjacent to the Greenway.

Arthropod Plan/Mosquito Control

Mosquito control on the MCRG will be handled by the Leon County Mosquito Control program located with the Division of Operations under the County's Department of Public Works. Mosquito Control employees provide Leon County residents and visitors with effective and environmentally sound mosquito control services. Services and educational programs are provided to protect public health and reduce human discomfort associated with large mosquito populations.

Leon County Mosquito Control accomplishes its mission through source reduction, public education, and larval and adult mosquito control services.

In accordance with F.A.C. Chapter 5E-13.040, all persons who apply or supervise the application of a pesticide intended to control arthropods on the property other than their own individual residential or agricultural property must be licensed to do so, or work under the supervision of a licensed applicator. The license is issued by the Mosquito Control Section in the Bureau of Entomology and Pest Control, a unit of the Division of Agricultural Environmental Services under the Florida Department of Agriculture and Consumer Services.

Pesticide applications must be accurately recorded and kept on file for a minimum of three years, per Section 5E-13.040(8). Other criteria for safety training, worker protection, and justification for adulticide applications are outlined in Chapter 5E-13 F.A.C. License holders are responsible for understanding and complying with all requirements under the law.

All safety precautions and procedures defined by the product label are followed. All insecticides used are registered by the Environmental Protection Agency and applications are made in direct compliance to the product label. Each product label specifically identifies the requirements for safe handling of the product, including clean-up and disposal. Vehicles are equipped to handle any accidental on-site spills. Applicator safety and the protection of employees and patrons, as well as the prevention of non-target organism exposure, are practiced with each treatment.

Giving consideration to the types of recreational activities involved, no applications are made that will result in employees or patrons coming in direct contact with insecticides. Products are not applied that will leave a residual insecticide. The same application methods used for residential treatments are followed in treating recreational areas.

Management Priorities

Objectives

Management objectives for the MCRG include (not listed in order of priority):

- Protect and restore natural, historical, cultural and archaeological resources.
- Provide for the safety of all users.
- Provide for passive recreational uses only.
- Provide equal access for all users to the extent possible and permittable.
- Maintain and improve facilities to ensure a high-quality greenway experience for users.
- Provide maps, signage, and other information for users.
- Strengthen user and stewardship partnerships.
- Facilitate community education and awareness of scenic, cultural, historical, and environmental resources involving the Greenway.
- Provide for alternative transportation uses, consistent with the Tallahassee – Leon County Greenways Master Plan.
- Preserve the tree canopy and historical vistas on Miccosukee Road; and
- Manage the natural landscape as guided by the Forest Stewardship Management Plan and other guidelines in this Plan.

Operational Activities

The Leon County Division of Parks and Recreation, part of Leon County's Public Works Department, oversees the management, including maintenance and improvements, of the MCRG. They have and will continue to coordinate with the Tallahassee – Leon County Planning Department, the Leon County Department of Development Support & Environmental Management, Leon County Public Works, and other County and selected City of Tallahassee departments on the implementation of the management plan over the planning horizon. Support groups, volunteers, and inmate labor will assist in this implementation.

As development of additional amenities and the management of the various stands proceeds on the MCRG, additional staff and equipment may need to be budgeted to meet these needs. Current maintenance includes mowing of grassy trails and fields, repairing and renovating trails, parking areas, and fencing as necessary, and removal of litter.

The Greenway will be open to the public every day during daylight hours from sunrise to sunset. The core hours of sunrise to sunset may be adjusted, as needed, to accommodate for safety and management needs or for authorized special events.

Funding

Operating funds for the MCRG will come from Leon County's General Fund each fiscal year. Improvement funds may come from the General Fund or the Recreational Trails Program (RTP). The RTP is a federally-funded competitive grant program that provides financial assistance for the development of recreational trails, trailheads, and trailside facilities.

Development

Many of the planned amenities described in the original management plan have been developed by the County over the last decade. The exceptions have included picnic pavilions at the trailhead facilities and a paved trail at the Edenfield trailhead. The paved trail will not be developed due to improvements made to the trunk trail system.

The County will continue making improvements to the existing trailhead facilities and to the maintained trails, including stabilizing the trunk trail system through the application of finely crushed stone/shell rather than asphalt to create a disabled-accessible surface in keeping with the rural nature of the Greenway. These improvements are intended to address erosion and safety concerns. No pavement shall be applied to any maintained multi-use trail.

An education pavilion will be considered for construction. Its design, size, placement, and any other considerations will be developed in coordination with FDEP, the Friends of the MCRG, and any nearby neighborhood associations or other homeowner's groups or organizations.

No new trailheads are planned, and only one mile of new trail is expected to be built at this time based on anticipated adjacent development. While there are large areas adjacent to the MCRG that are being planned for development, it is currently unknown when and to what degree any such development will occur. Therefore, the County is planning at this time for moderate growth in the use of the Greenway within the ten-year scope of this Plan. If the use of the Greenway increases beyond the scope of this plan, the development of any new facilities or other amenities will be coordinated with FDEP.

As public facilities are developed on the MCRG, every effort will be made to comply with the Americans with Disabilities Act (Public Law 101-336). 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).

Safety/Security Management

Leon County and the City of Tallahassee have established a coordinated local 911 system. Greenway users should contact 911 in the case of a true emergency. Additional security will be provided by the Leon County Sheriff's Office, particularly for special events and for addressing criminal and other illegal activities.

Additional security measures include perimeter fencing in selected areas, lockable gates or bollards at trail entrances to prevent unauthorized motor vehicle access, and posted hours of operation (sunup to sundown).

The Leon County Division of Parks and Recreation will consider the creation of a volunteer citizens group to patrol Greenway trails on a regular basis. This patrol group would be advisory only, and would not be deputized or otherwise authorized to enforce any laws, ordinances, or policies, but instead would be education- and safety-oriented only.

Citizen Support Organizations

The Friends of the Miccosukee Canopy Road Greenway is the Citizen Support Organization (CSO) for the MCRG. The Friends of the Miccosukee Canopy Road Greenway, an incorporated non-profit, tax-exempt support group, was the principal citizens committee providing input into the creation, design, and eventual use of the Greenway. The purpose of this group is to promote broad community participation in the development of the Miccosukee Canopy Road Greenway as a linear park with a public access greenway; to promote recreational, educational, and alternative transportation uses for the facility; and to provide assistance to Leon County for its management and operational plans.

Pursuant to Section 258.015, F.S., CSOs may raise funds, seek and receive grants, and accept gifts or bequests of money and tangible or real property on behalf of the public land that they represent. Should fund raising in the form of charitable raffles occur, the raffles will be regulated by Section 849.0935, F.S. In addition to monetary support, CSOs assist by increasing community awareness and involvement in the land and its programs. Pursuant to Section 20.2551(4), F.S., "all records of the citizen support organization constitute public records for the purposes of Chapter 119, F.S." Accordingly, the Greenway manager or a designated staff member has been and will continue to attend CSO meetings.

From time to time, other staff may be asked by the Manager to assist with CSO projects, such as coordinating or organizing a specific event. Staff may not serve as director on a CSO board. It is important to note that although staff cannot serve as a CSO board member or officer, he or she may become a member of the CSO. Family members and relatives of a staff person may serve on a CSO board as a member or an officer.

Private Vendors

Public/private partnerships are allowable under this management plan. The MCRG manager may contract with private vendors (for profit or non-profit) to provide services as allowable and appropriate under existing Leon County policies. Contractual opportunities may include (but are not necessarily not limited to) trash removal, site clean-up, facilities maintenance, and exotic species control.

Third party agreements between the County and any private vendors for management activities, easements, concession agreements or contracts, and all other actions are required when private vendors are utilized. Each agreement must be reviewed by OGT.

Florida Greenways and Trails Designation

The MCRG has been designated as part of the Florida Greenways and Trails System through the Florida Greenways and Trails Designation Program. The designation program was established to:

- Further the purposes, goals, and objectives of the Florida Greenways and Trails System,
- Ensure an inclusive and interconnected system of greenways and trails,
- Encourage voluntary partnerships in conservation, development, and management of system components,
- Provide recognition for individual components of the system and those partners involved, and
- Raise public awareness of the conservation and recreation benefits of the system components.

This designation will be maintained by Leon County.

National Recreation Trail Designation

The MCRG has been designated as a National Recreation Trail under the federal National Recreation Trails (NRT) program. The National Trail System Act of 1968 (Public Law 90-543) authorized creation of a national trail system comprised of National Recreation Trails, National Scenic Trails, and National Historic Trails. While National Scenic Trails and National Historic Trails may only be designated by an act of Congress, National Recreation Trails may be designated by the Secretary of Interior or the Secretary of Agriculture to recognize exemplary trails of local and regional significance in response to an application from the trail's managing agency or organization. Through designation, these trails are recognized as part of America's national system of trails.

The National Recreation Trails Program supports designated NRT's with an array of benefits, including promotion, technical assistance, networking, and access to funding. Its goal is to promote the use and care of existing trails and stimulate the development of new trails to create a national network of trails and realize the vision of "Trails for All Americans."

The MCRG has also received the National Association of County Park & Recreation Officials' Award for Environmental/Conservation Outstanding Accomplishment. These designations will be maintained by the County.

Public Access and Use

Access/Parking

The MCRG has four parking areas that are located one each at the four existing trailheads. These include, from the west end of the Greenway to its east end, Fleischman Road, Edenfield Road, Thornton Road, and Crump Road. These four parking areas/trailheads will continue to be used over the scope of this Plan. Improvements to these facilities are described below:

1. The Fleischman Road Trailhead is an improved area that can accommodate approximately fifteen automobiles, and has a surface composed of interlocking pavers. One concrete handicapped persons parking space is located here that has a concrete sidewalk that leads to a handicapped-accessible portable restroom. The parking area is fenced with a wooden post and beam fence to prevent overflow parking.
2. The Edenfield Road Trailhead is an improved area that can accommodate approximately 25-50 automobiles, and has a packed, crushed limestone and gravel surface. There are three concrete handicapped persons parking spaces with a concrete sidewalk that leads to a disabled-accessible permanent restroom. This trailhead also includes a water fountain and a water mister. The parking area is fenced with a wooden post and beam fence to prevent overflow parking.
3. The Thornton Road Trailhead is an improved area that can accommodate approximately up to 50 automobiles, and has a grass and packed earth surface. It is also designed to accommodate horse trailers due to its wide area. There is one concrete handicapped persons parking space with a concrete sidewalk that leads to a handicapped-accessible portable restroom. This trailhead includes a water fountain and a water spigot. The parking area is fenced with a wooden post and beam fence to prevent overflow parking.
4. The Crump Road Trailhead is an unimproved area that can accommodate approximately 25 automobiles, and has a grass and packed earth surface with patches of gravel. There are two concrete handicapped persons parking spaces, several picnic tables, and a nearby handicapped-accessible portable restroom. Metal bollards have been installed to prevent unauthorized vehicles from accessing the trunk and other trails leading from this area.

At this time, there are no plans to provide any additional parking areas/trailheads.

<u>Walking/Hiking/Running</u>

Walking, hiking, and running on the MCRG are accommodated on maintained multi-use trails and certain other open areas on the Greenway. These activities will remain as allowable uses throughout the planning horizon.

Competitive running events are allowed consistent with Leon County's *Use and Scheduling of Parks & Recreation Facilities* policy 06-1 (Appendix M), and at the discretion of the Division of Parks and Recreation.

<u>Bicycling</u>

Bicycling is accommodated on maintained multi-use trails and other designated areas within the Greenway. This will remain an allowable use throughout the planning horizon.

Competitive bicycling events are allowed consistent with existing Leon County's *Use and Scheduling of Parks & Recreation Facilities* policy, and at the discretion of the Division of Parks and Recreation.

State law (Chapter 316.2065, Florida Statutes) requires helmets for cyclists under the age of 16, including children who are riding in a trailer or semi-trailer attached to a bicycle. All other bicycle users on the Greenway will be urged in any promotional materials to wear helmets.

Equestrian Use

Equestrian use of the MCRG is currently accommodated via the Thornton Road and Crump Road parking areas. It is allowed in all areas of the Greenway on the maintained multi-use trails and other designated areas, and will remain an allowable use throughout the planning horizon.

All horses must have proof of current negative Coggins Test results when on the Greenway. All equestrian riders under age 16 must wear a certified helmet on state lands. To promote the safety of children, the 2009 Florida Legislation passed a bill referred to as 'Nicole's Law.' Any child under the age of 16 years and riding an equine on any public lands, roads, or trails, by law, must wear a certified helmet. A parent or guardian of a child under 16 years of age may not authorize or knowingly permit a child to ride without a helmet. Responsibility lies with any trainer, instructor, or supervisor who rents or leases an equine to be ridden by a child younger than 16 or when renting or leasing equine supplies.

Competitive equestrian events are allowed consistent with Leon County's *Use and Scheduling of Parks & Recreation Facilities* policy, and at the discretion of the Division of Parks and Recreation.

Camping

Camping is not accommodated because of the lack of a suitable, buffered location and facilities for this activity, and because the Greenway is closed at sundown.

Fishing

Fishing is not accommodated because of the lack of a suitable waterbody for this activity.

Hunting

Hunting of any kind by private individuals and groups, including catch and release, the use of traps of any kind, paintball games, and target practice, is not an allowable activity on the MCRG. The Florida Administrative Code currently prohibits hunting in all state parks, state recreation areas, state archeological sites, and similar state lands not specifically designated for hunting activities.

Picnicking

Picnicking is accommodated near trailheads and in mowed pastures by the placement of picnic benches. This activity will remain an allowable use throughout the planning horizon.

Other uses

The intent of the acquisition of the MCRG by the State of Florida under the Preservation 2000 Environmental Land Acquisition and Development Program was to preserve its environmental and historical resources, including historic landscapes, and to provide recreational, educational,

and transportation uses and opportunities to the citizens of Leon County and the State of Florida. The Greenway is therefore intended to be a passive or resource-based linear park and multi-use greenway. These types of areas are dependent on natural and cultural resources, contrasted with “user-oriented” or active outdoor recreation recreational and conservation-oriented parks and greenways.

As required by Section 253.043, Florida Statutes, the Greenway shall be managed for natural resource-based recreation, and to ensure the survival of plant and animal species and the conservation of finite and renewable natural resources for the benefit and enjoyment of all people of the state, both present and future. Consistent with these objectives, this property is managed for multiple-use purposes, including public access and enjoyment, resource conservation and protection, ecosystem maintenance and protection, and protection of threatened and endangered species. Athletic fields are not appropriate for a linear park and multi-use greenway such as the MCRG. Therefore, these facilities are not allowed on the Greenway and are specifically prohibited by deed restriction.

Since it is not possible to address all potential activities given the pace of technological change and the development of new recreational activities, the Leon County Division of Parks and Recreation reserves the right to prohibit any such activities which may jeopardize or impede public safety or the enjoyment of the general public on the property; threaten or harm the natural resources of the property; or interfere with the privacy of adjacent landowners.

Allowable, limited, and prohibited uses of the Greenway are summarized in Table 4.

Table 4: Uses.

Use	Allowable	Limited	Prohibited
Archery			✓
Birdwatching	✓		
Bicycling	✓		
Camping			✓
Fishing			✓
Geocaching		✓	
Golfing and Golf-related Activities			✓
Hiking	✓		
Horseback Riding	✓		
Hot Air Ballooning			✓
Hunting			✓
Kite flying	✓		
Model Rocket Flying			✓
Motorized Recreational Vehicles			✓
Nature study	✓		
Off-road or Aerial Vehicle Use			✓
Organized Sports and Sporting Events		✓	
Orienteering	✓		
Picnicking	✓		
Remote Controlled Vehicles (ground or air)			✓
Running	✓		
Special Events		✓	
Stargazing		✓	
Target Practice			✓
Ultralight Aircraft			✓
Wildlife Observation	✓		

- Uses classified as “allowable” are considered to be consistent with the purposes for acquisition of the Greenway.
- Uses classified as "Limited" indicate that the use may be acceptable but will be allowed only if consistent with Leon County’s *Use and Scheduling of Parks & Recreation Facilities* policy and approved by the County’s Division of Parks and Recreation.
- Uses classified as “Prohibited” are considered to be incompatible with the stated objectives of the Greenway.

Interpretive Opportunities

Interpretive kiosks have been installed at the Edenfield, Crump, and Thornton Road parking areas/trailheads. Additionally, an interpretive kiosk has been installed at the Hickory Hammock. These will be maintained to educate and instill an appreciation for the history of the area and the natural environment. Kiosks will include site maps and other relevant information.

Geocaching

Geocaching is an outdoor activity in which the participants use a Global Positioning System (GPS) receiver to hide and seek locations. A geocacher can place a geocache, pinpoint its location using GPS technology, and then share the geocaches existence and location online. Anyone with a GPS unit can then hunt the geocache. Geocaching can be enjoyed by an individual, a family, or a group. Geocaching has been viewed as a means of promoting tourism and a way to promote resources.

Leon County has the authority to approve, decline, or place restrictions on caches. Placement of the cache will be reviewed on a case-by-case basis. Management will encourage the use of Tread Lightly!, Inc.'s website at www.treadlightly.org, which includes "Tips for Responsible Geocaching." While seeking geocaches, people will be encouraged to collect and properly dispose of litter. Should an entity or individual decide to hold a geocaching event, it will be subject to Leon County's *Use and Scheduling of Parks & Recreation Facilities* policy, and at the discretion of the Division of Parks and Recreation.

The following general guidelines for requesting placement of a geocache will be adhered to:

- The cache should be placed in close proximity to an existing trail/trailhead.
- The party responsible for the cache (owner) should live in the vicinity of the cache, to facilitate frequent maintenance. It is an owner's responsibility to maintain the cache.
- Avoid sensitive areas, such as archaeological and ecological resources, wetlands, steep slopes, etc.
- The cache must be placed above ground. Digging or other ground-disturbing activities are not allowed.
- The cache owner will be encouraged to list the cache on the Official Global GPS Cache Hunt Site, www.Geocache.com website.

Orienteering

Orienteering is a family of usually competitive sports that requires navigational skills using a map and compass to navigate from point to point in diverse and usually unfamiliar terrain, and normally moving at speed. Participants are given a topographical map, usually a specially prepared orienteering map, which they use to find control points.

Orienteering has developed many variations, including orienteering by foot, mountain bike, ski, trail, radio, canoe, motor bike, and car.

Foot, bicycle, or equestrian orienteering using trails are the preferred forms of orienteering on the MCRG so as to minimize any environmental or other impacts, and to remain consistent with

other allowed uses. Competitive or other related special orienteering events will be subject to the County's *Use and Scheduling of Parks & Recreation Facilities* policy.

Pet Policies

Pets are allowed, but must be kept on a maximum six-foot leash to protect other humans and animals, including wildlife. Owners must pick up excrement and dispose of it in proper waste facilities. Kiosks and brochures will promote "Safety and Etiquette" and educate the public about pet policies, including existing City and County ordinances. Domestic animals that are noisy, vicious, dangerous, disturbing, or act threatening to persons or other animals are considered nuisances and will not be permitted to remain on the Greenway.

Managing Multiple Trail Uses

All maintained trails on the MCRG are shared or multiple use. To educate trail users on appropriate trail etiquette, trailhead kiosks will provide information regarding trail rules and basic courtesy guidelines. The basic rule of trail use as promoted by FDEP is that all non-equestrian users yield to equestrians and that pedestrians yield to bicyclists.

All signs and any traffic control devices should be consistent with state and local regulations.

Transportation Alternatives

The MCRG has a maintained multi-use trail that runs the entire length of the Greenway. This trail presents a *non-motorized* transportation alternative for that section of Miccosukee Road between Crump Road and Fleischman Road, which does not have sidewalks, bike lanes, or wide shoulders. Pedestrians and bicyclists can also traverse portions of the Greenway via the existing trailheads at Edenfield Road and Thornton Road, and it is anticipated that as the build-out of the proposed developments north of the MCRG proceeds, additional users may utilize all or portions of the Greenway as a transportation alternative to Miccosukee Road and other roadways.

Special Events

Leon County has developed a *Use and Scheduling of Parks & Recreation Facilities* policy for individuals or organizations planning events on County-managed properties. Staff will coordinate with all event planners to ensure the goals and objectives of the event are compatible with the designated use of the MCRG, and that all applicable security and safety requirements are met.

Emergency Operations

In the event of a disaster or other catastrophic event, management will clear the Greenway of visitors and direct them to return to their residence or a public shelter as necessary. After completion of any necessary evacuations, personnel shall take appropriate action to ensure the protection of government property. All government-owned equipment and vehicles not removed from the Trailhead will be locked and secured as necessary.

All emergency situations are coordinated through local 911 emergency services. The trunk trail system is accessible to emergency vehicles, and local Emergency Medical Services (EMS) staff can presently gain access to the gates and bollards limiting vehicular access to these trails. The managing agency will ensure that emergency access is maintained.

As part of a signage program for the trails, the managing agency will develop over time a locational system that EMS can utilize to direct vehicles to that location in an emergency situation.

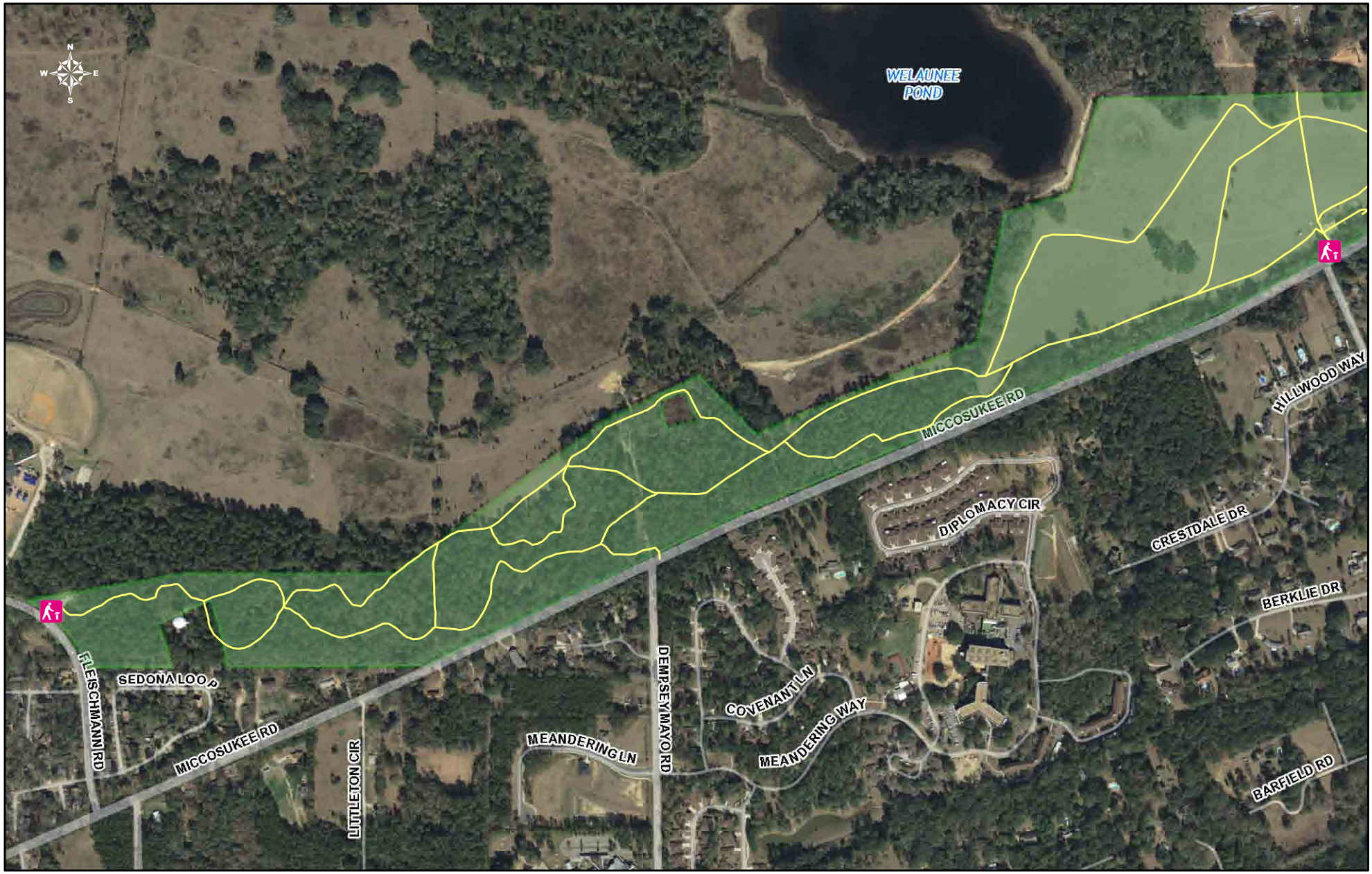
Accomplishments from Implementation

Existing improvements from the implementation of the first edition of the MCRG are indicated in Appendix K. Additional accomplishments include (not in any priority):

- The introduction of regular prescribed burning as a primary management tool.
- The identification and protection of a unique 45.6-acre upland hickory-oak-pine forest stand.
- Management of a wide variety of exotic invasives in the 21 identified stands.
- Creation of 14.5 miles of maintained multi-use trails.
- Designation as part of Florida's Greenways and Trails System.
- Designation as a National Recreation Trail.
- Receipt of an Historic Preservation Award from the Tallahassee – Leon County Historical Preservation Society in 1999 for preserving rural landscapes.

Land Management Review

To date, an Interagency State Land Management Review (LMR) Team has not toured the property or conducted a LMR. FDEP will consider the findings and recommendations of the LMR Team in finalizing the next required update to the MCRG Management Plan.



SECTOR 1: FLEISCHMANN TRAILHEAD TO EDENFIELD TRAILHEAD

0 0.05 0.1 0.2 Miles

Trails
Trailhead
Park
Community Center
Boat Ramp

DISCLAIMER

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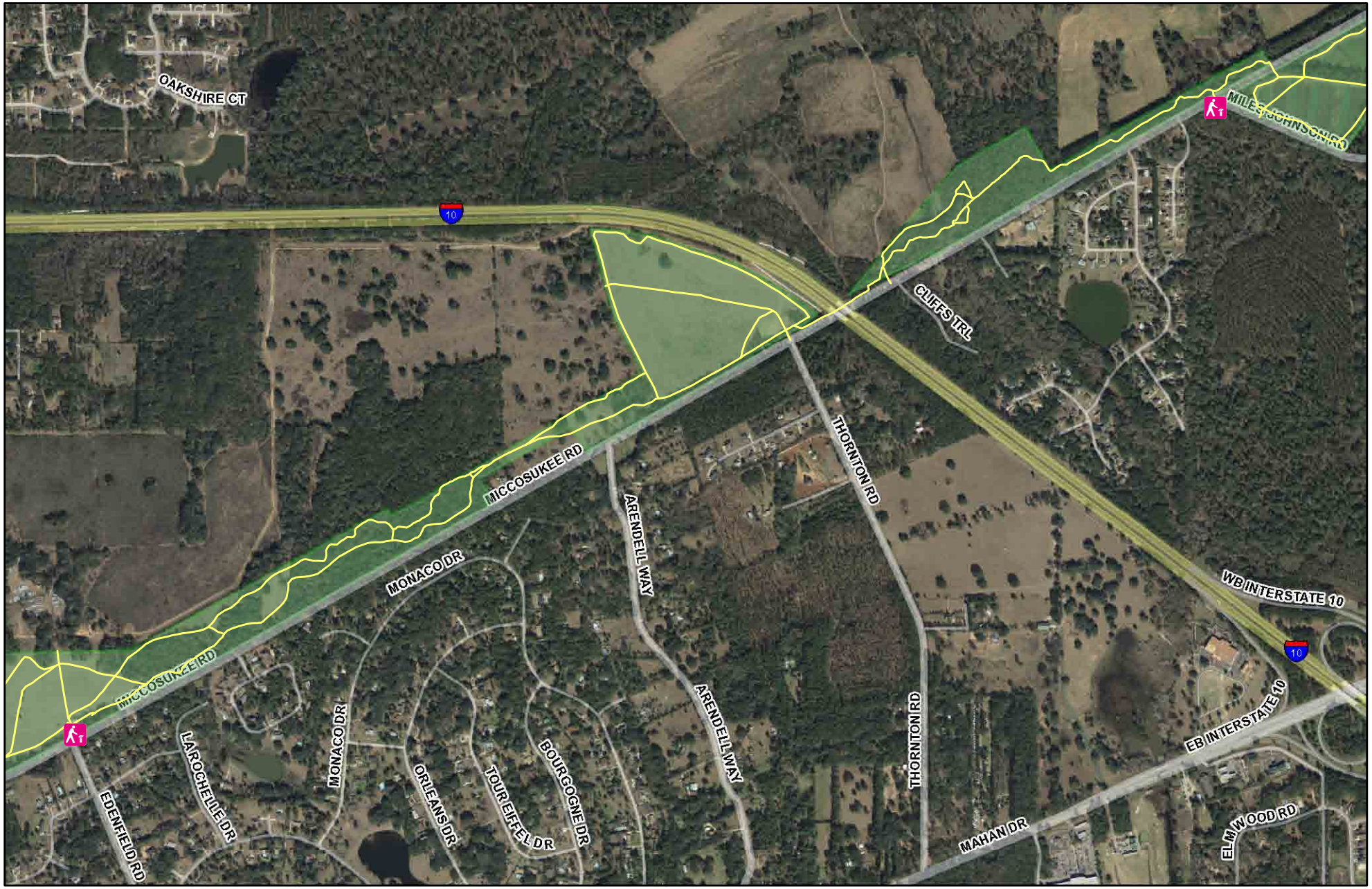
Map created on 6-1-11
by Tricia McClenahan
Tallahassee-Leon County GIS
Telephone: (850) 606-1529
Web: http://www.tlcgis.org



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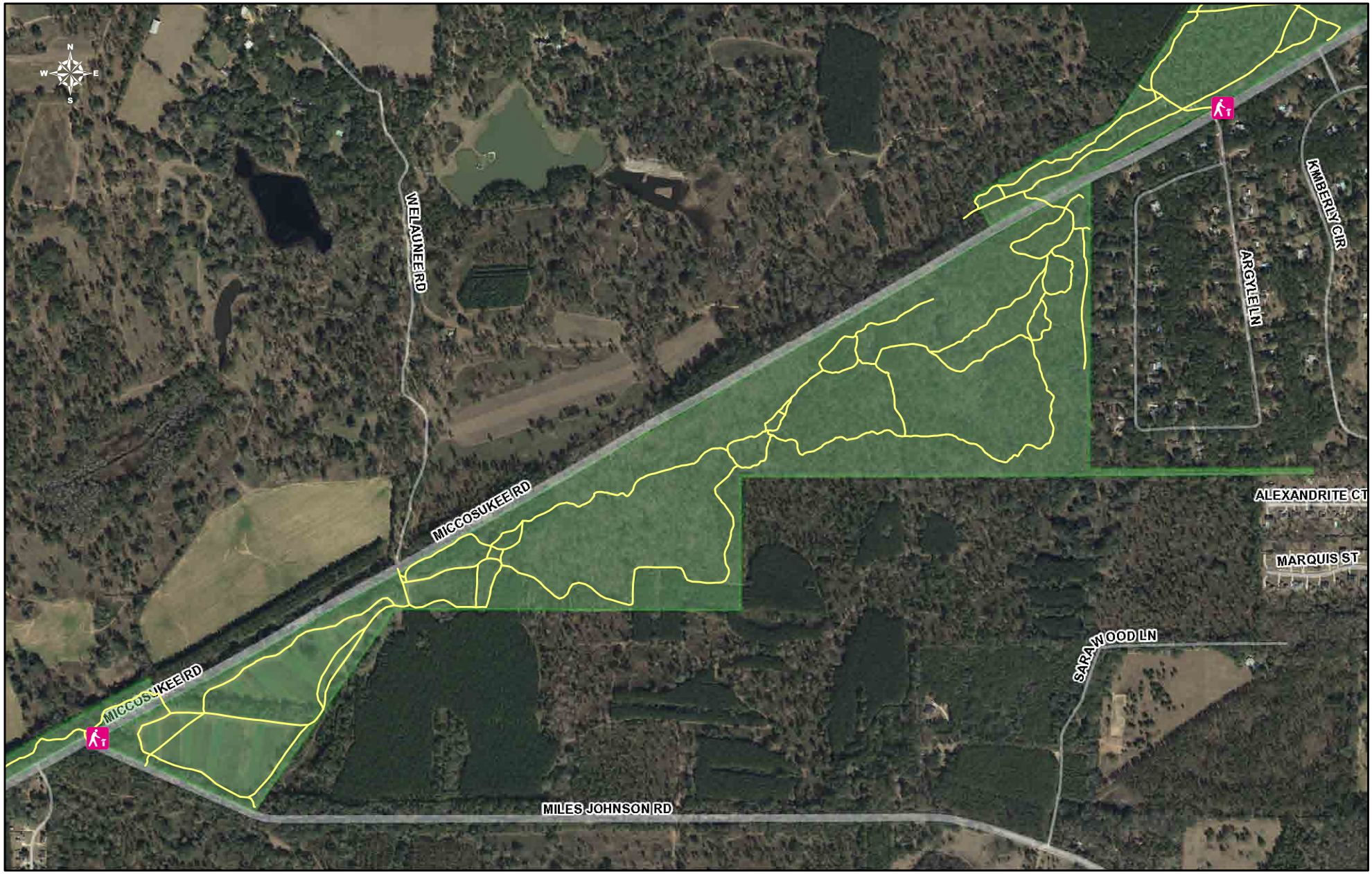
SECTOR 2: EDENFIELD TRAILHEAD TO MILES JOHNSON CROSSING

0 0.1 0.2 0.4 Miles

Trails
Trailhead
Park
Community Center
Boat Ramp



SECTOR 3: MILES JOHNSON CROSSING TO ARGYLE CROSSING

0 0.1 0.2 0.4 Miles

Trails
Trailhead
Park
Community Center
Boat Ramp

DISCLAIMER

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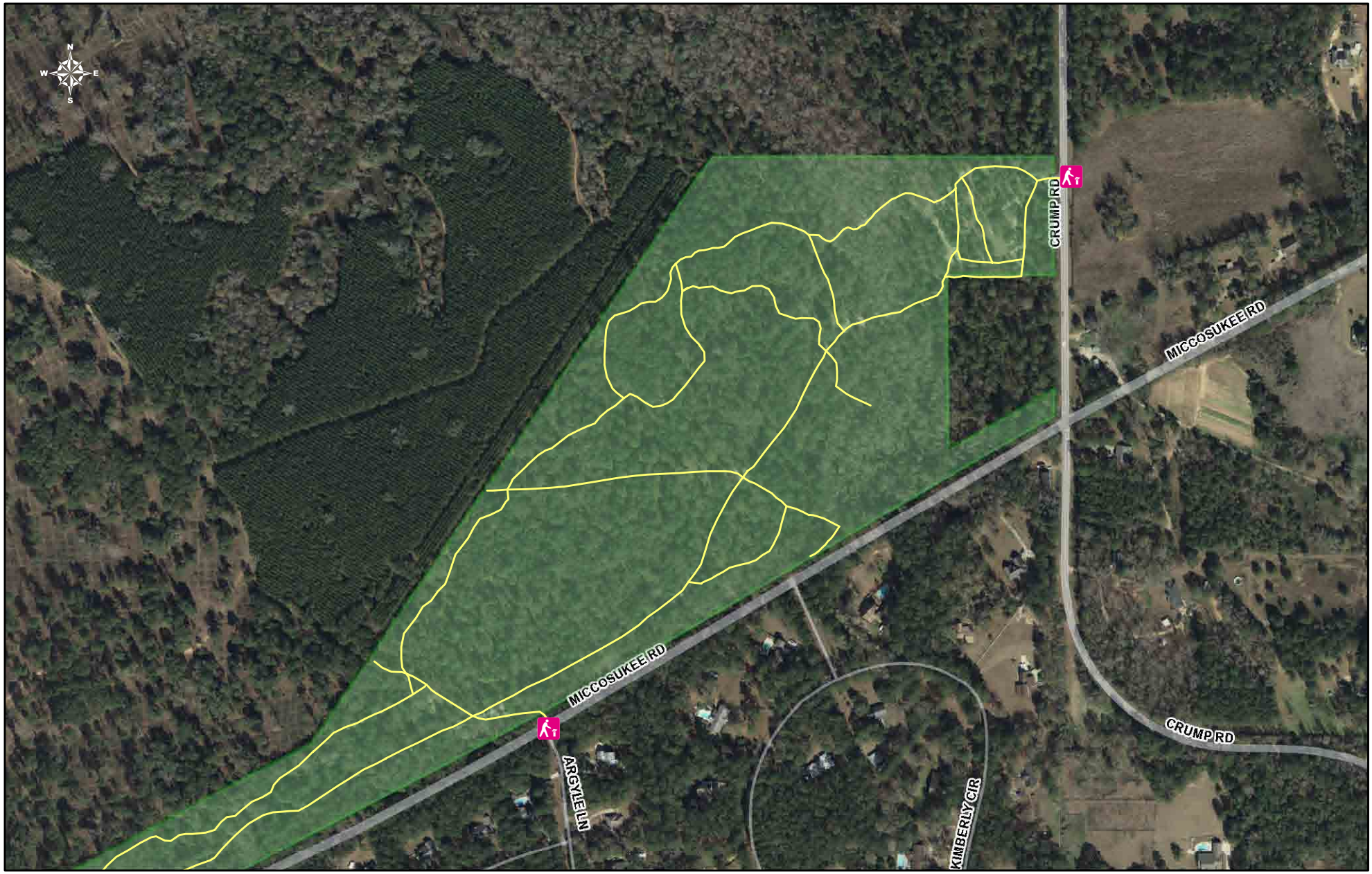

SECTOR 4: ARGYLE CROSSING TO CRUMP TRAILHEAD

0 0.0375 0.075 0.15 Miles

Trails
Trailhead
Park
Community Center
Boat Ramp

DISCLAIMER

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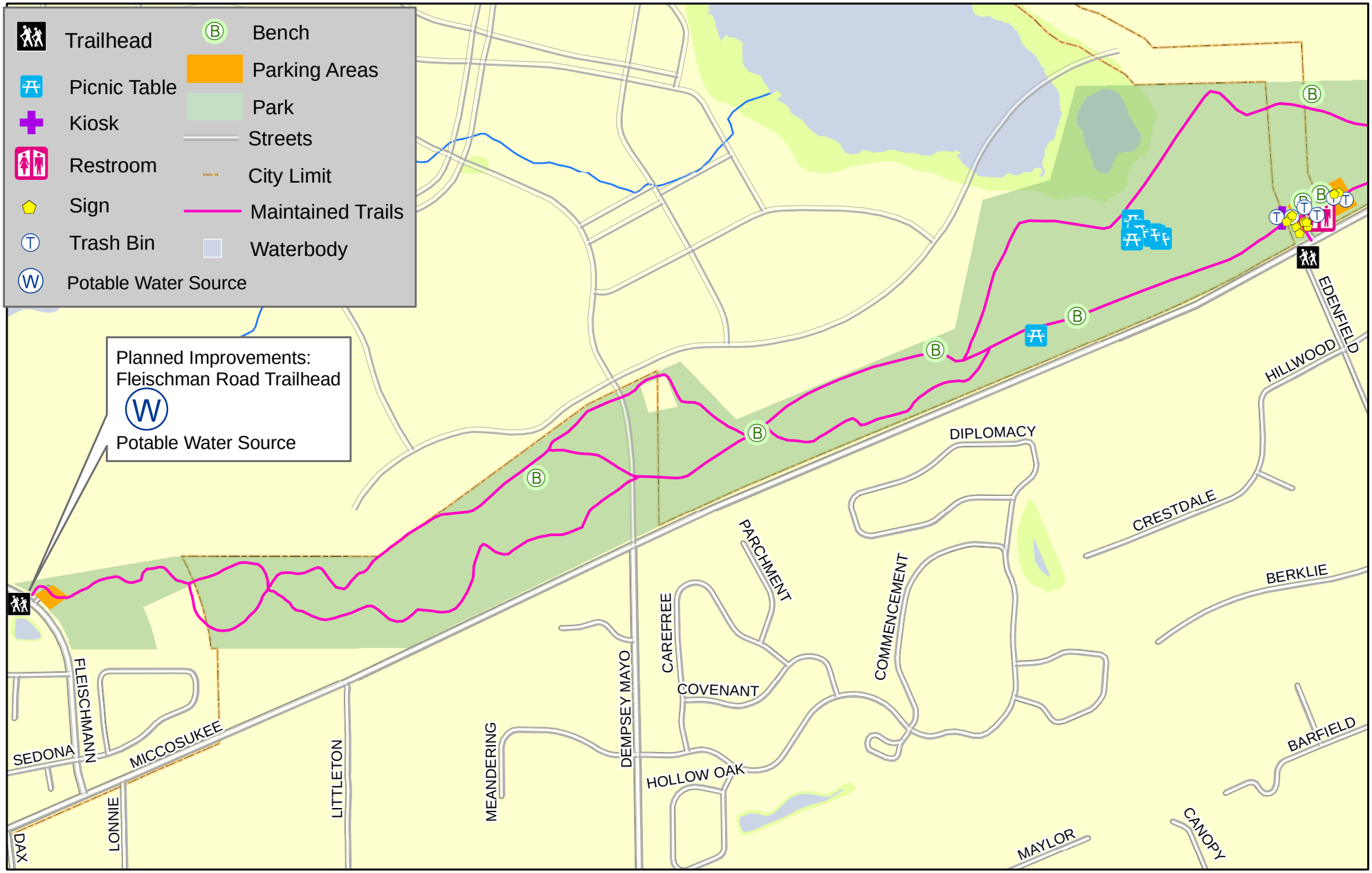

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Map created on 1-30-12
by Tricia McClenahan
Tallahassee-Leon County GIS
Telephone: (850) 606-1529
Web: http://www.tlcgis.org

SECTOR 1: FLEISCHMANN TRAILHEAD TO EDENFIELD TRAILHEAD

Existing and Planned Improvements

COUNTY MAINTAINED TRAILS
14.5 Miles - Total for all 4 Sectors

0 0.1 0.2 0.4 Miles

Map 2A

DISCLAIMER

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Map created on 1-30-12
by Tricia McClenahan
Tallahassee-Leon County GIS
Telephone: (850) 606-1529
Web: http://www.tlcgis.org

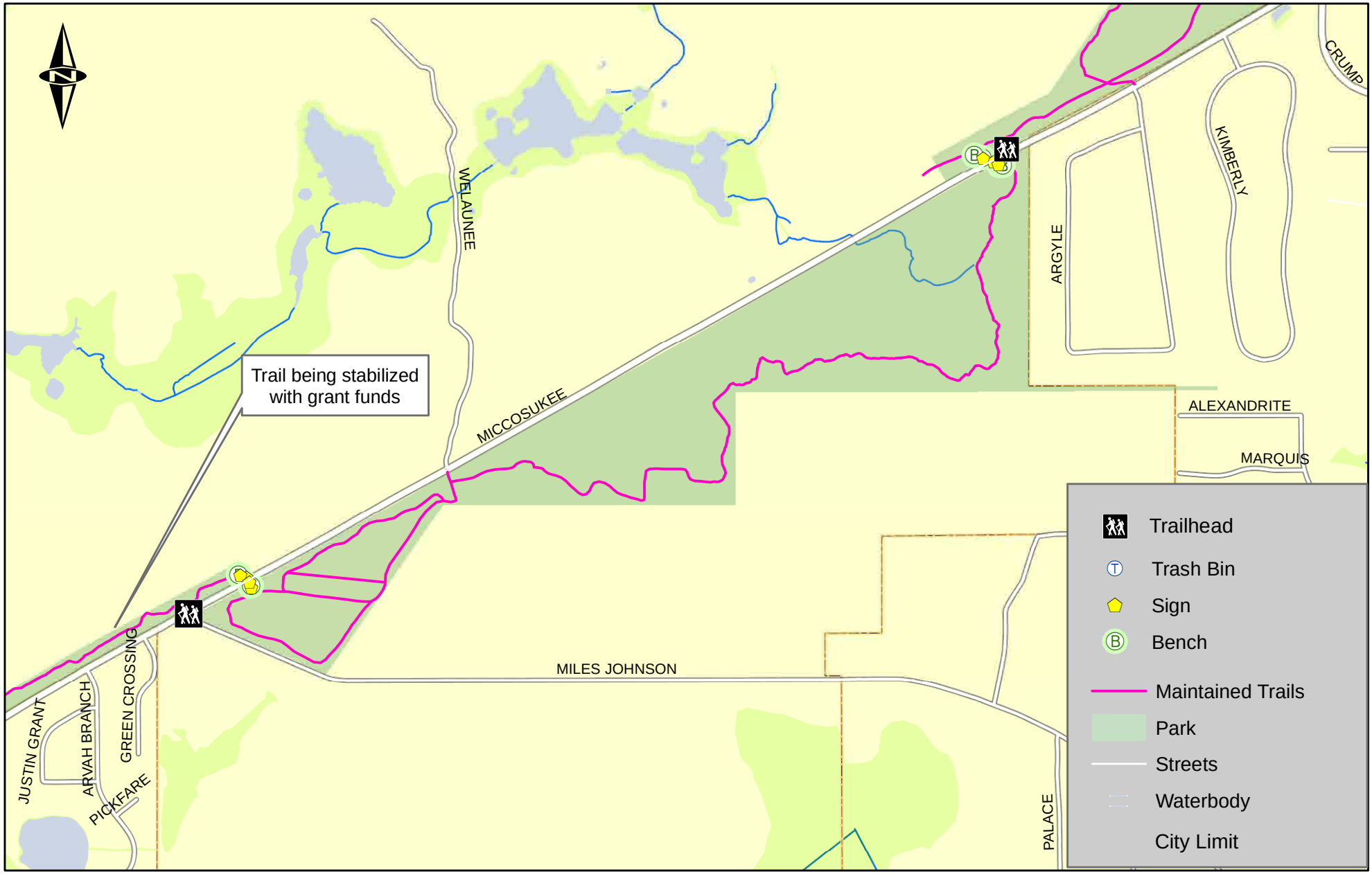
SECTOR 2: EDENFIELD TRAILHEAD TO MILES JOHNSON CROSSING

Existing and Planned Improvements

COUNTY MAINTAINED TRAILS
14.5 Miles - Total for all 4 Sectors

Map 2B

0 0.1 0.2 0.4 Miles



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Map created on1-30-12
by Tricia McClenahan
Tallahassee-Leon County GIS
Telephone: (850) 606-1529
Web: http://www.tlcgis.org

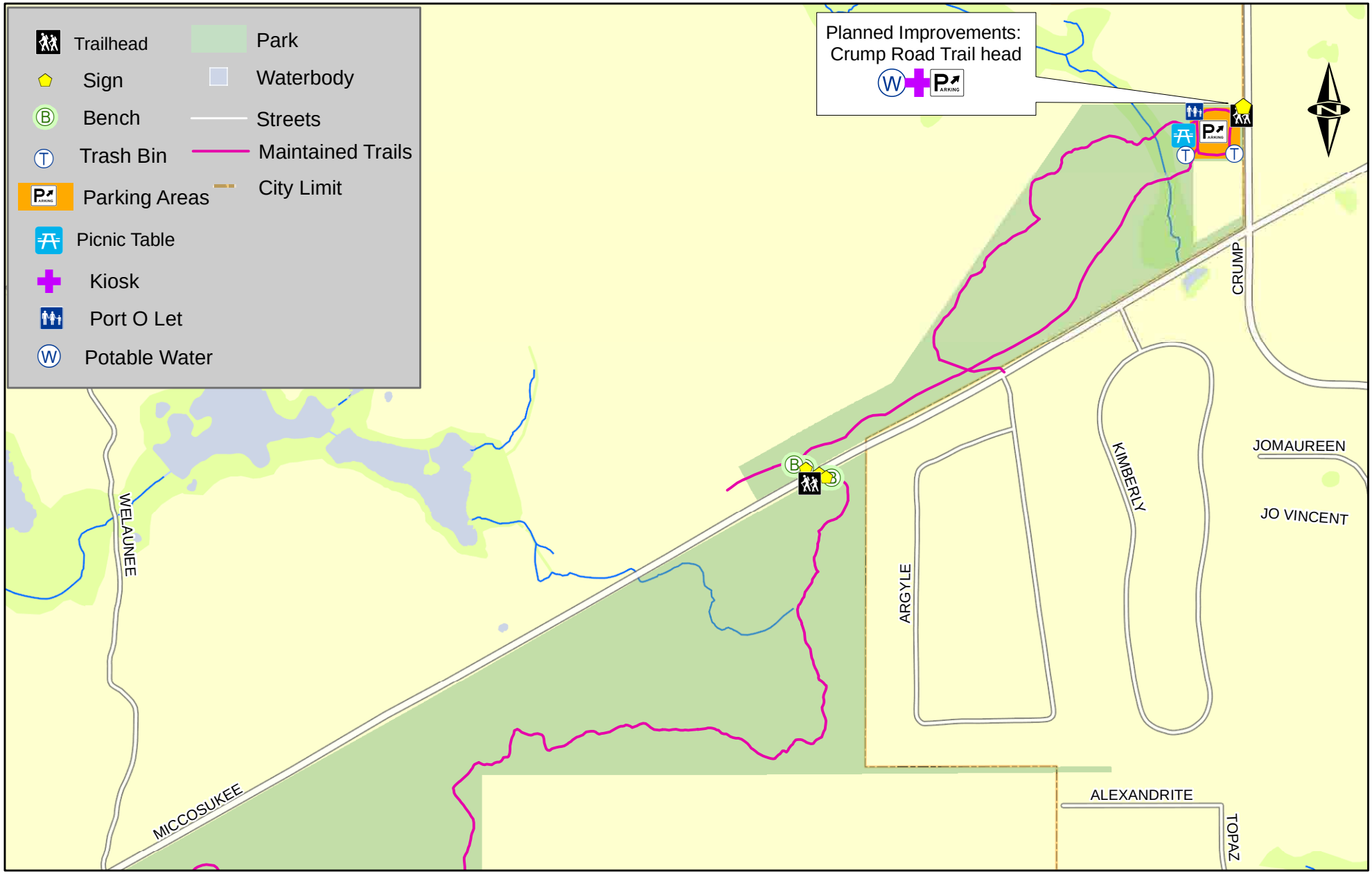
SECTOR 3: MILES JOHNSON CROSSING TO ARGYLE CROSSING

Existing and Planned Improvements

COUNTY MAINTAINED TRAILS
14.5 Miles -Total for all 4 Sectors

0 0.15 0.3 0.6 Miles

Map 2C



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SECTOR 4: ARGYLE CROSSING TO CRUMP TRAILHEAD

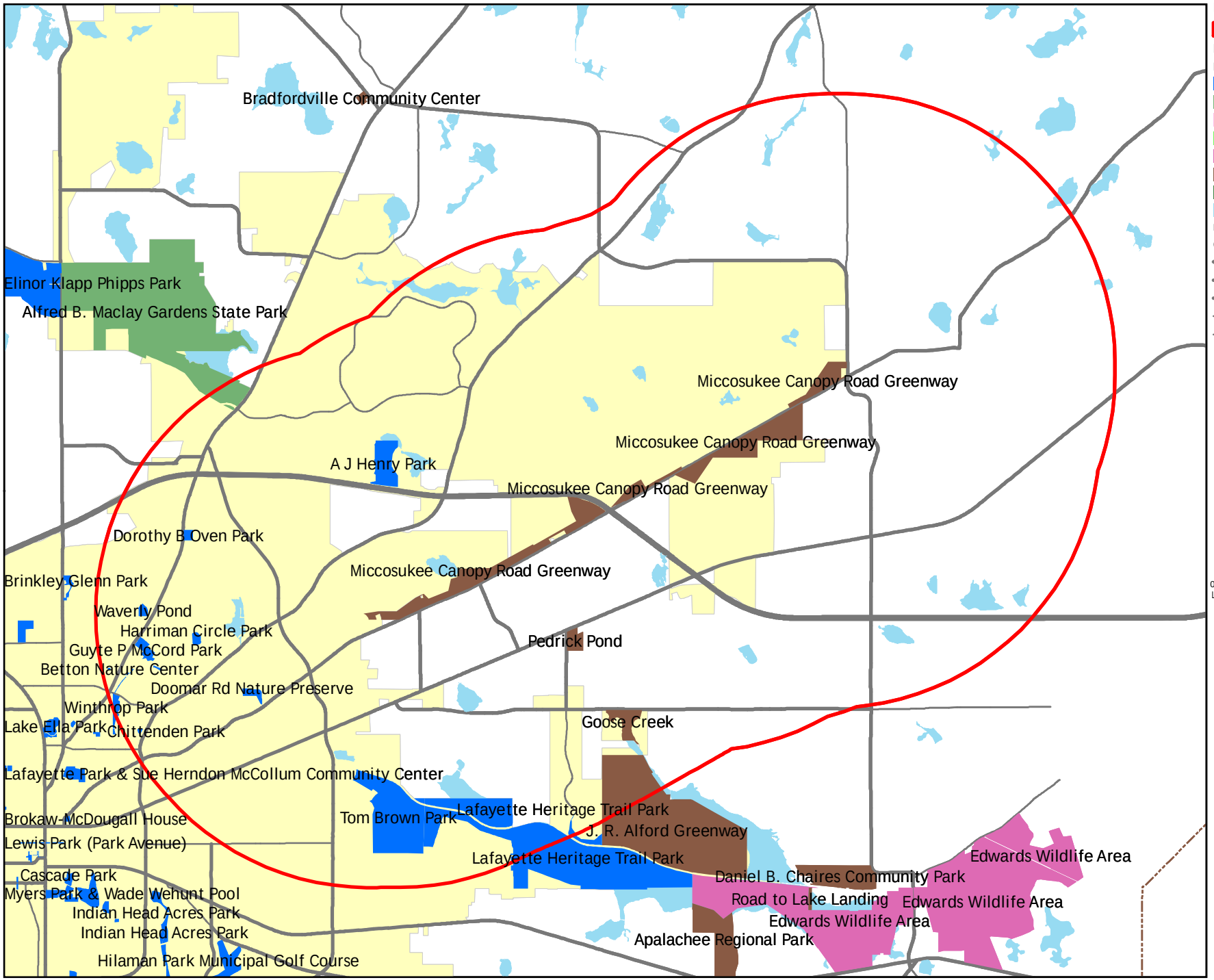
Existing and Planned Improvements

COUNTY MAINTAINED TRAILS
14.5 Miles - Total for all 4 Sectors

Map 2D

0 0.125 0.25 0.5 Miles

Map 3a. Nearby Public Lands



Legend

3mile Buffer

Parks

MANAGER

- COT
- FDEP
- FDOACS
- FDOS
- FWC
- LEON COUNTY PUBLIC WORKS
- USFS
- Major Waterbody

Major Road

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential

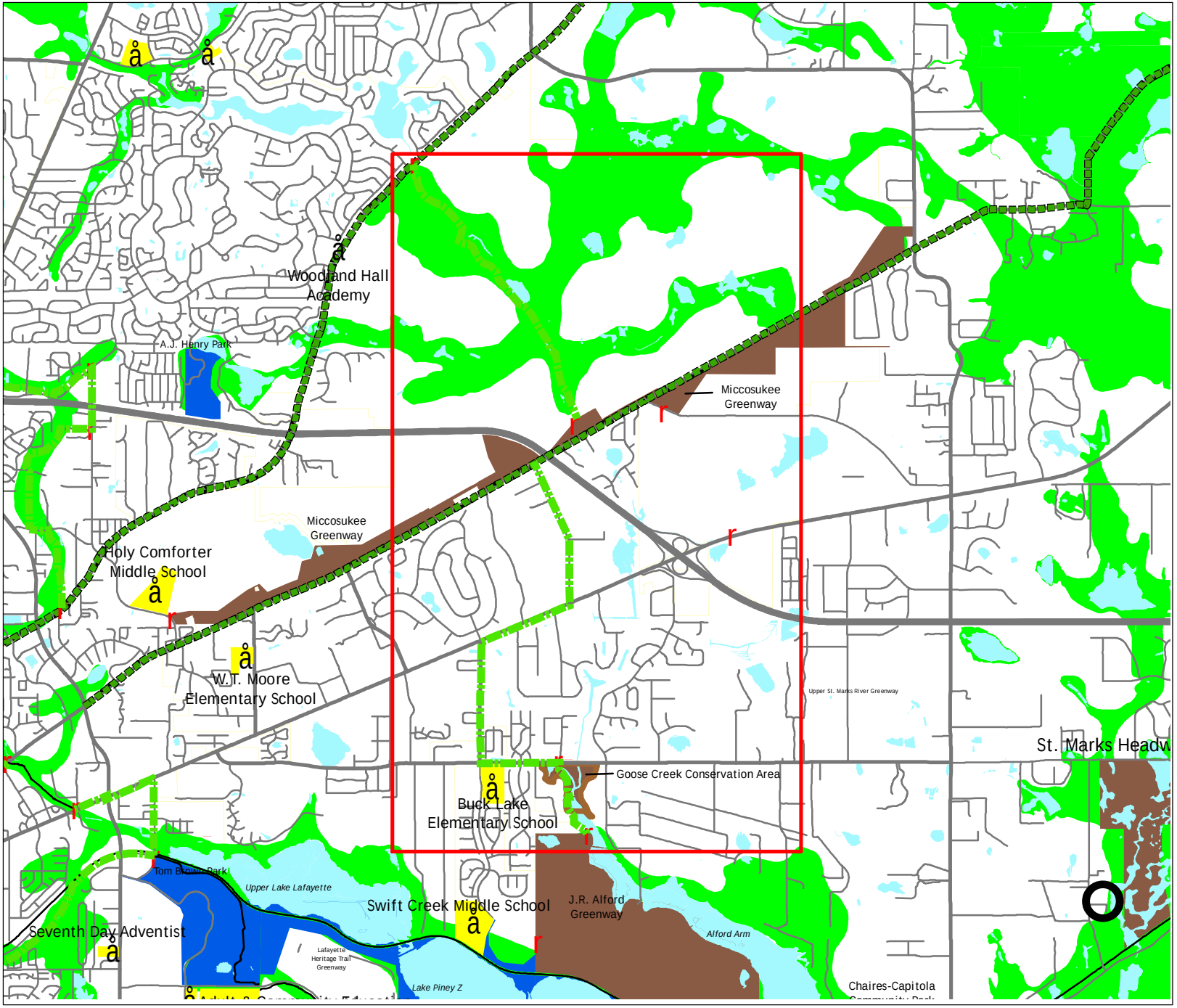
0 2,550 5,100 10,200 Feet

TLCPD

Tallahassee-Leon County Planning Department

NOTE: This product has been compiled from the most accurate source data from Leon County and the City of Tallahassee. However, this product is for reference purposes only and is not to be construed as a legal document or survey\instrument.

Map 3b: Buck Lake Greenway



Legend

- Greenway Project
- blueway
- shared use
- walking trail
- Trailheads
- Existing Shared Use Path
- School
- School
- Major Road Names
- Canopy Road

Roads

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential
- Railroad
- Goose Creek County Park
- Water Feature
- City Park
- County Park
- State Conservation Area
- Proposed Greenway
- City Limits

0.7 0.35 0 0.7 1.4 Mi

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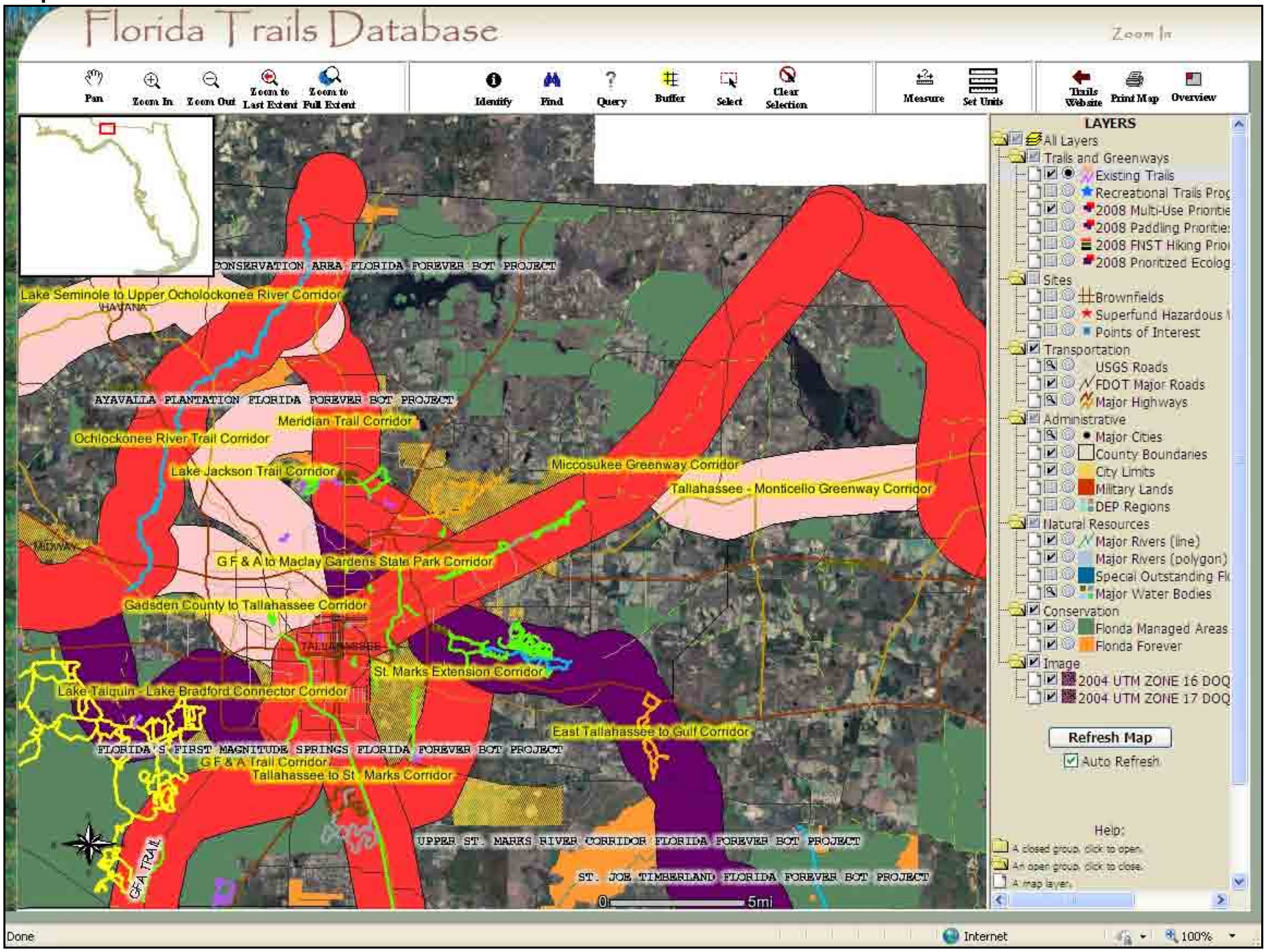
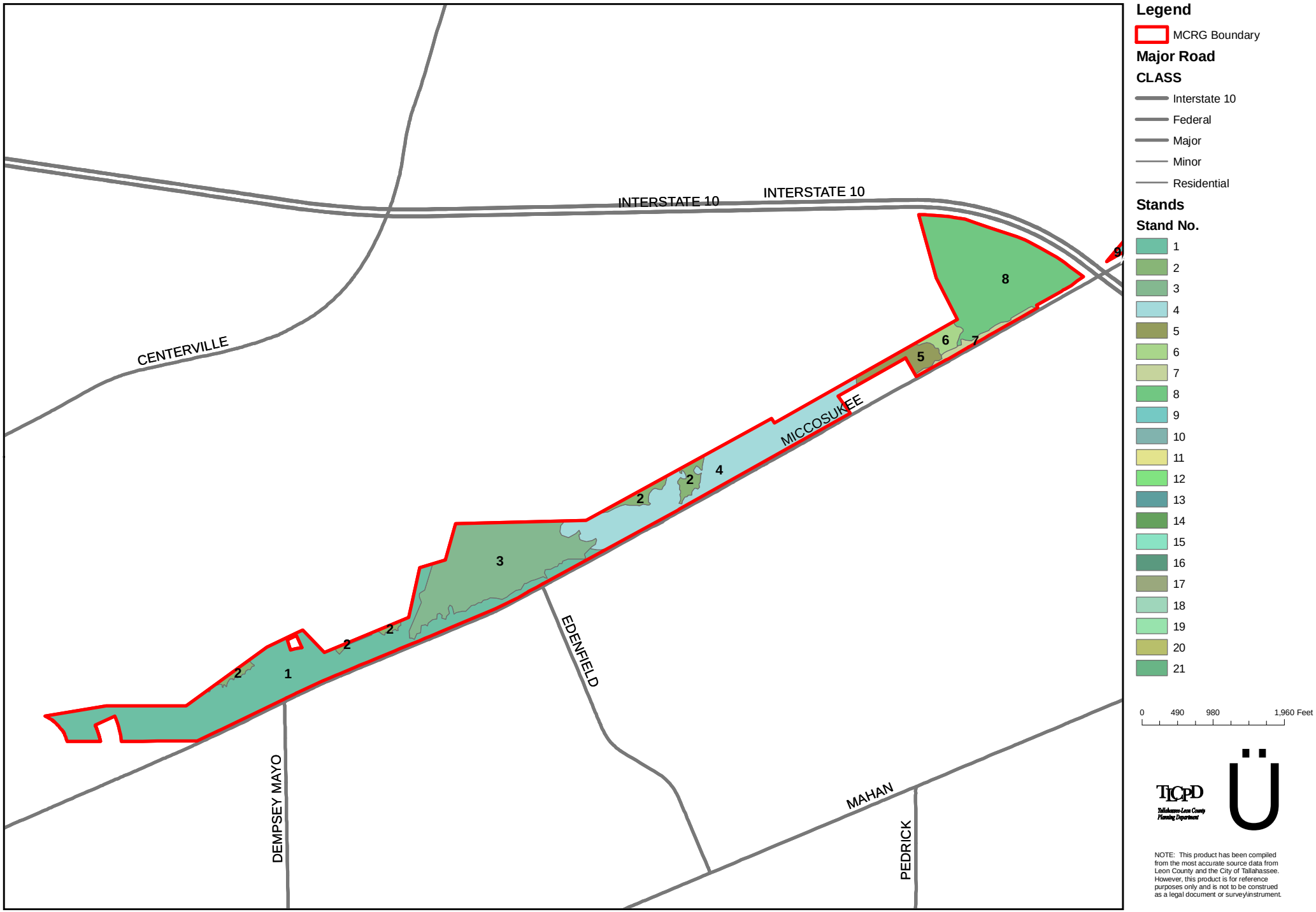
Tallahassee - Leon County Planning Department, 2004.

Map 3c.


Florida Trails Database
Zoom In
Pan
Zoom In
Zoom Out
Zoom to Last Extent
Zoom to Full Extent
Identify
Find
Query
Buffer
Select
Clear Selection
Measure
Set Units
Trails Website
Print Map
Overview
LAYERS
All Layers
Trails and Greenways
Existing Trails
Recreational Trails Prog
2008 Multi-Use Prioritie
2008 Paddling Prioritie
2008 FNST Hiking Prio
2008 Prioritized Ecolog
Sites
Brownfields
Superfund Hazardous
Points of Interest
Transportation
USGS Roads
FDOT Major Roads
Major Highways
Administrative
Major Cities
County Boundaries
City Limits
Military Lands
DEP Regions
Natural Resources
Major Rivers (line)
Major Rivers (polygon)
Special Outstanding Fl
Major Water Bodies
Conservation
Florida Managed Areas
Florida Forever
Image
2004 UTM ZONE 16 DOQ
2004 UTM ZONE 17 DOQ
Refresh Map
Auto Refresh
Help:
A closed group, click to open.
An open group, click to close.
A map layer.
CONSERVATION AREA FLORIDA FOREVER BOT PROJECT
Lake Seminole to Upper Ocholockonee River Corridor
HAVANA
AYAVALLA PLANTATION FLORIDA FOREVER BOT PROJECT
Meridian Trail Corridor
Ocholockonee River Trail Corridor
Lake Jackson Trail Corridor
Miccosukee Greenway Corridor
Tallahassee - Monticello Greenway Corridor
G F & A to Maclay Gardens State Park Corridor
Gadsden County to Tallahassee Corridor
TALLAHASSEE
St. Marks Extension Corridor
Lake Talquin - Lake Bradford Connector Corridor
East Tallahassee to Gulf Corridor
FLORIDA'S FIRST MAGNITUDE SPRINGS FLORIDA FOREVER BOT PROJECT
G F & A Trail Corridor
Tallahassee to St. Marks Corridor
UPPER ST. MARKS RIVER CORRIDOR FLORIDA FOREVER BOT PROJECT
ST. JOE TIMBERLAND FLORIDA FOREVER BOT PROJECT
GFA TRAIL
0
5mi
Done
Internet
100%

Map 4a. Natural Communities (from Forest Stewardship Plan)



Map 4b. Natural Communities (from Forest Stewardship Plan)

Legend

MCRG Boundary

Major Road

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential

Stands

Stand No.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21

0 475 950 1,900 Feet

TLCPD
Tallahassee-Leon County Planning Department

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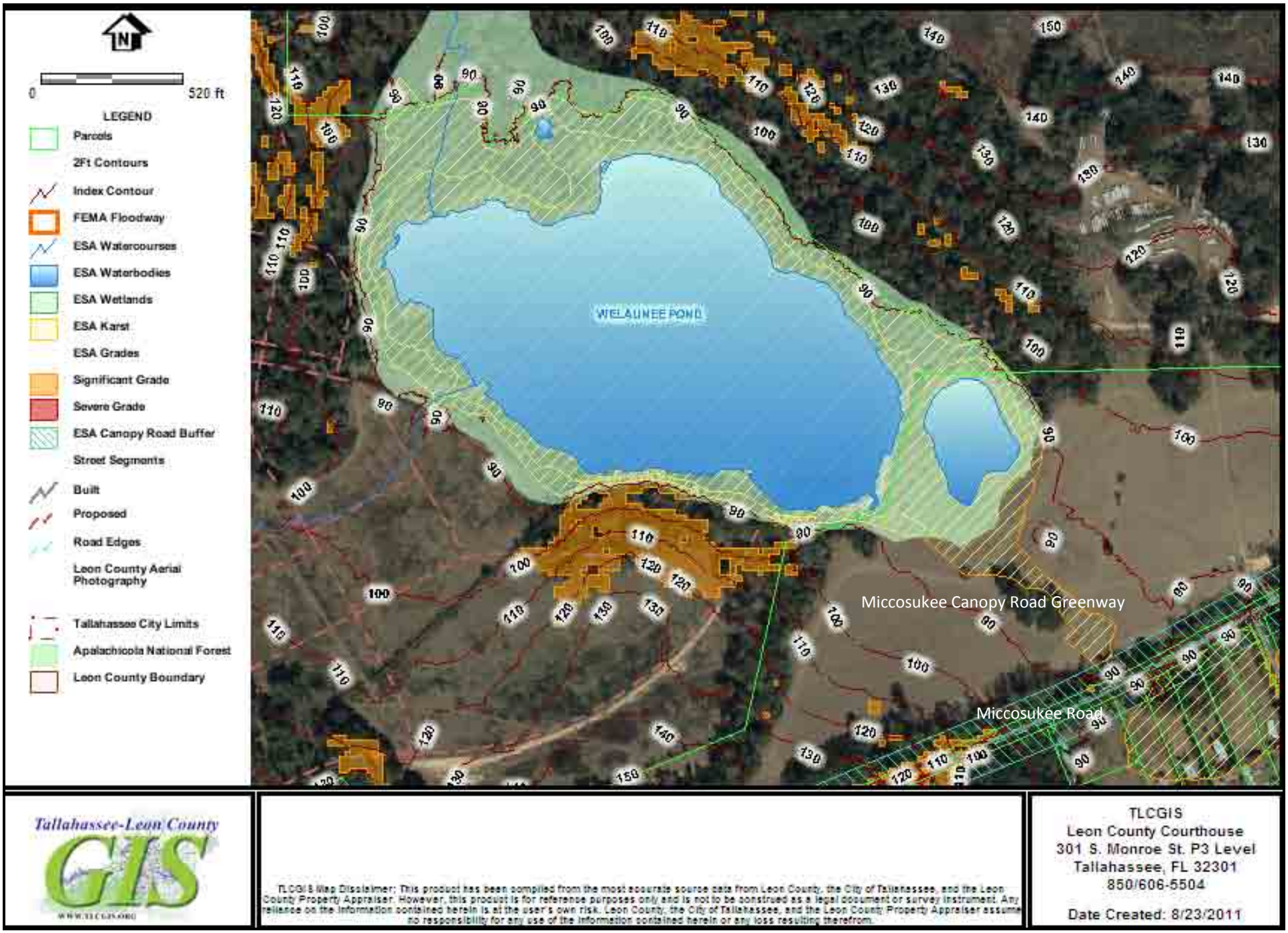
Map 5a. Hydrological Features.



Map 5b. Hydrological Features.

Tallahassee-Leon County GIS
www.tlcgis.com

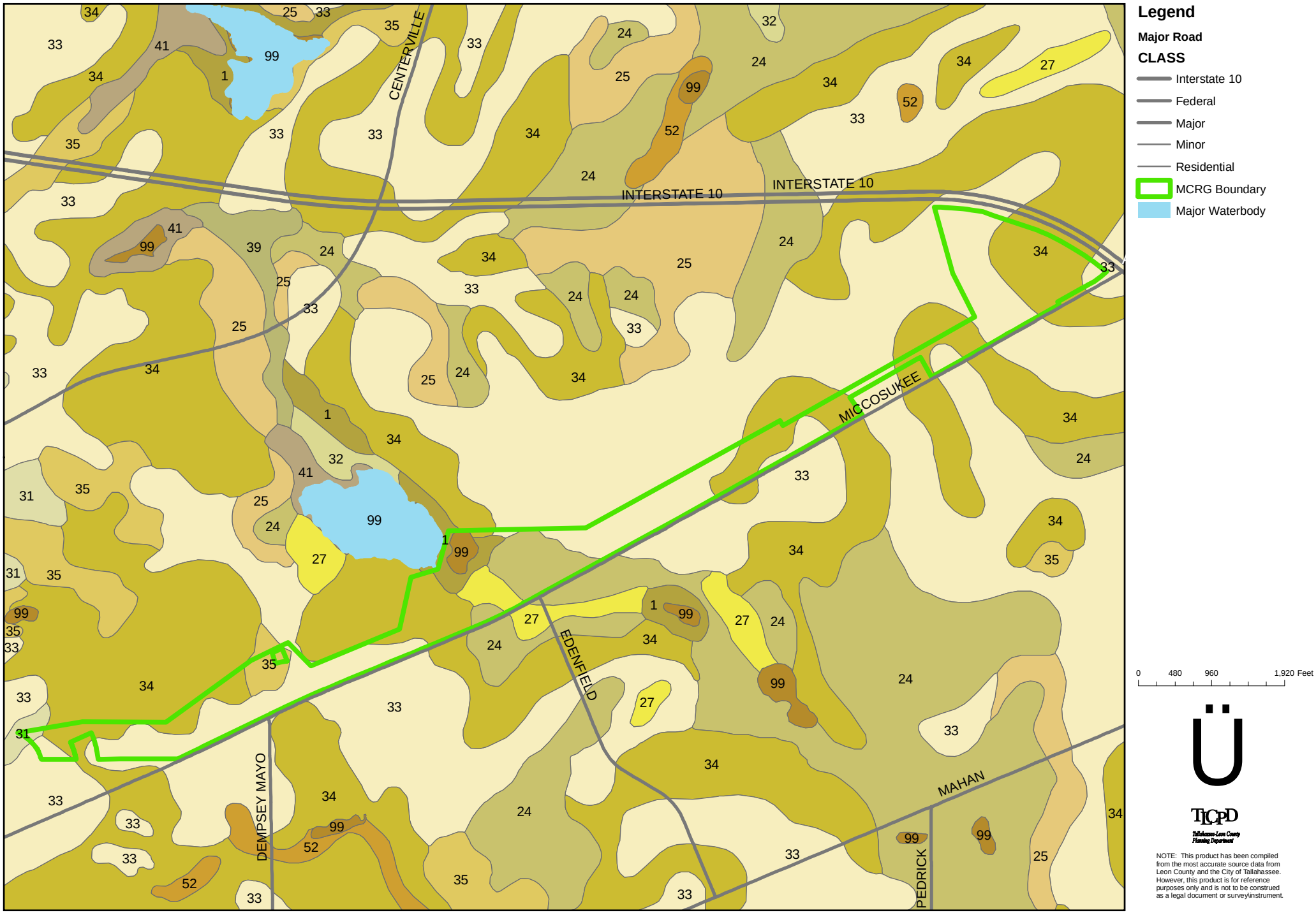
TLCGIS Map Disclaimer: This product has been compiled from the most accurate source data from Leon County, the City of Tallahassee, and the Leon County Property Appraiser. However, this product is for reference purposes only and is not to be construed as a legal document or survey instrument. Any reliance on the information contained herein is at the user's own risk. Leon County, the City of Tallahassee, and the Leon County Property Appraiser assume no responsibility for any use of the information contained herein or any loss resulting therefrom.

TLCGIS
Leon County Courthouse
301 S. Monroe St. P3 Level
Tallahassee, FL 32301
850/606-5504

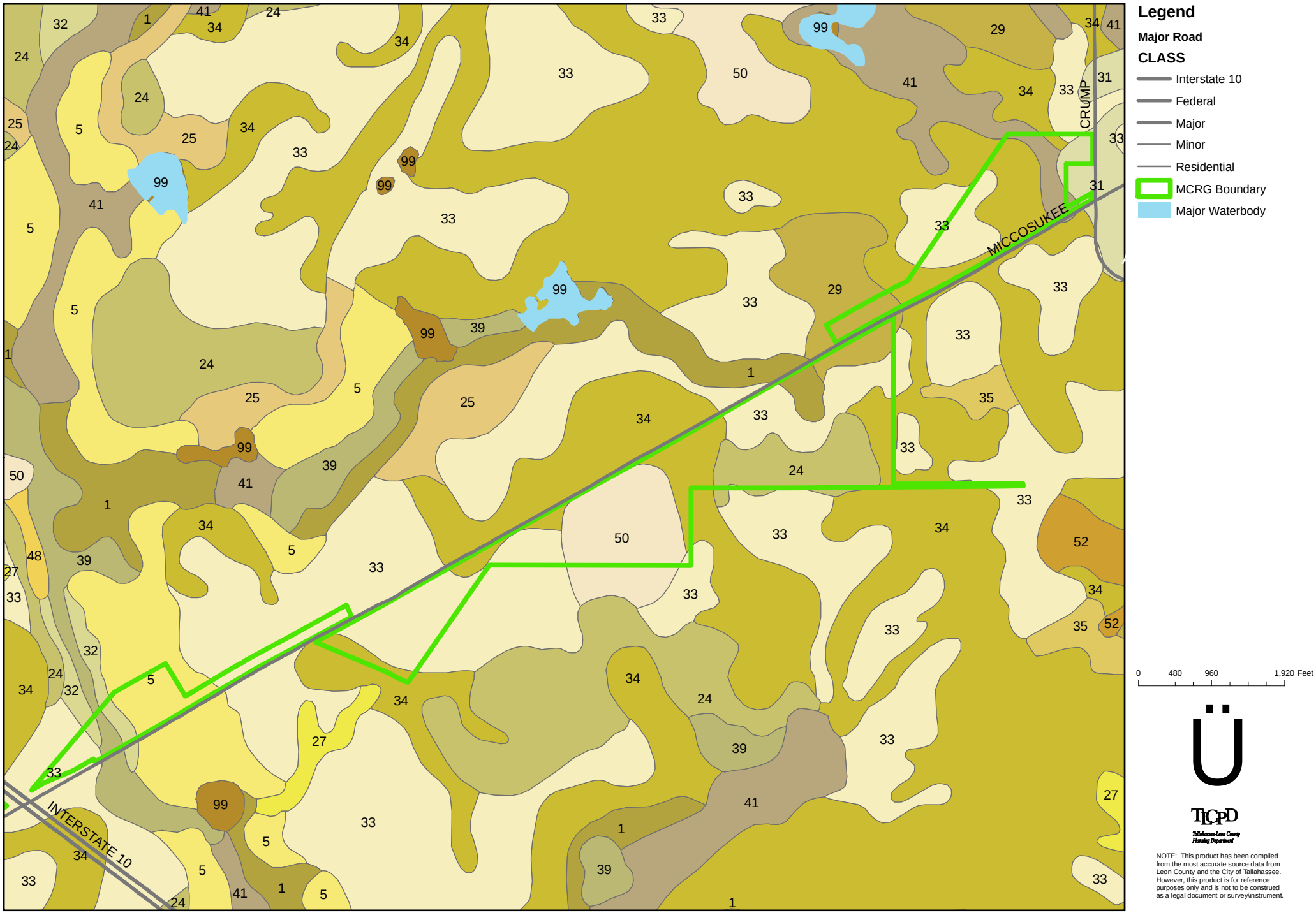
Date Created: 8/23/2011

Map 5c. Hydrological Features.

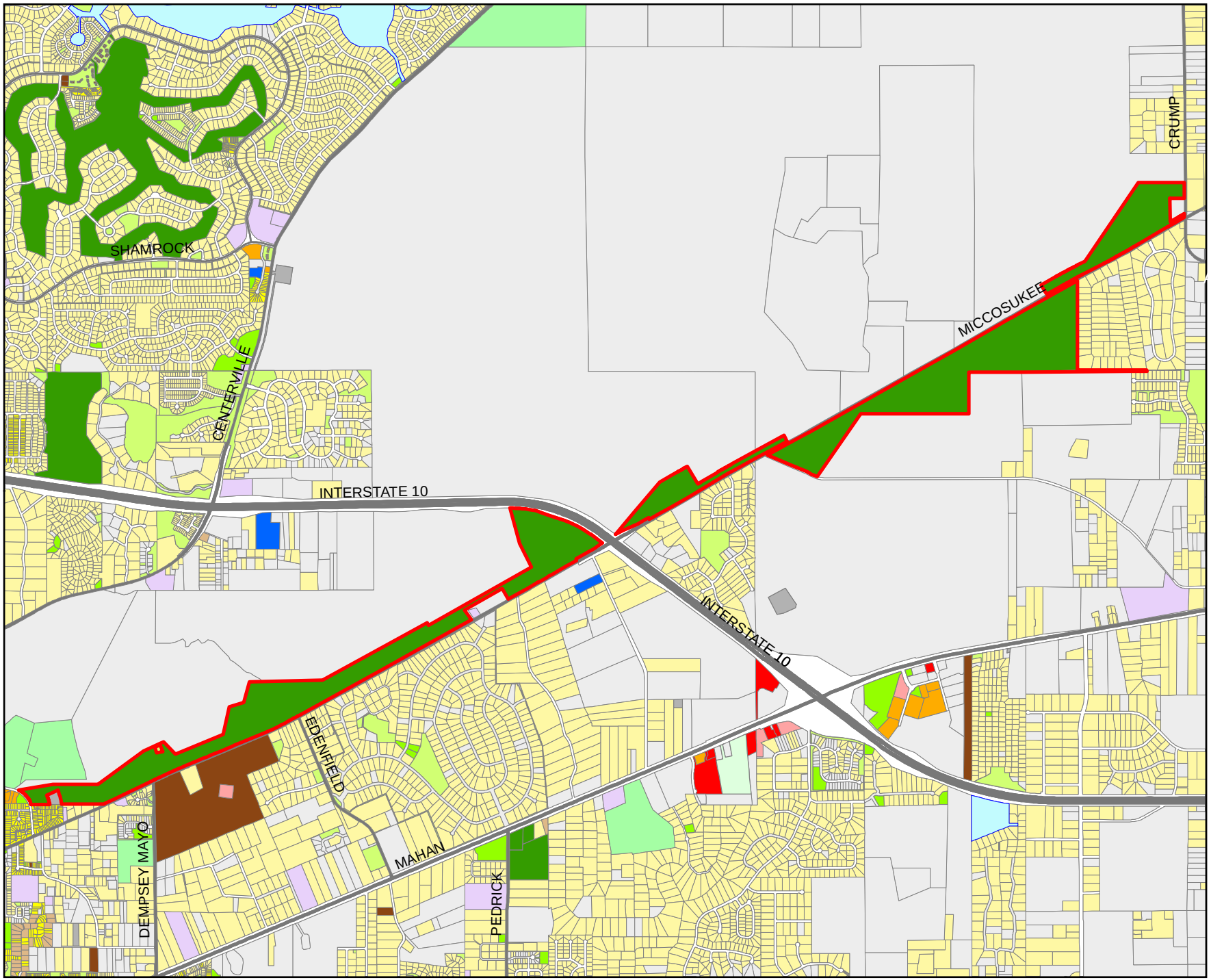
Map 6a. Soils (Western Half)



Map 6b. Soils (Eastern Half)



Map 7. Existing Land Use



Legend

- MCRG Boundary
- Single Family Detached/Mobile Home
- Single Family Attached
- Two-Family Dwelling
- Multi-Family
- Motel/Hospital/Clinic
- Retail
- Office
- Warehouse
- Government Operation
- School
- Open Space Undesignated
- Open Space Common Areas
- Open Space Resource Protection
- Open Space State & National Forest
- Open Space Recreation/Parks
- Religious/Non-profit
- Transportation/Communications/Utilities
- Water
- Vacant

Major Road

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential

0 950 1,900 3,800 Feet

TLCPD
Tallahassee-Leon County Planning Department

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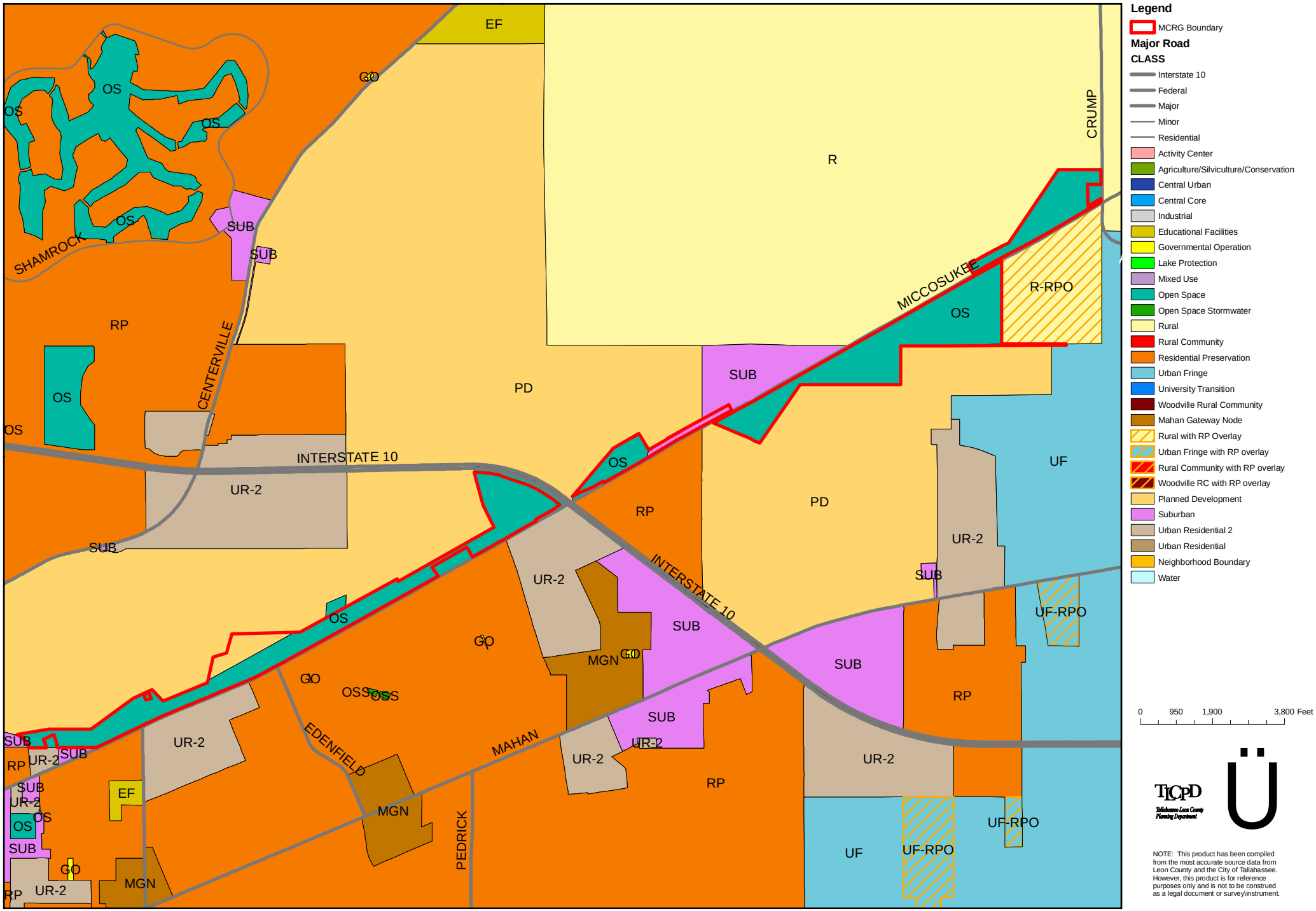
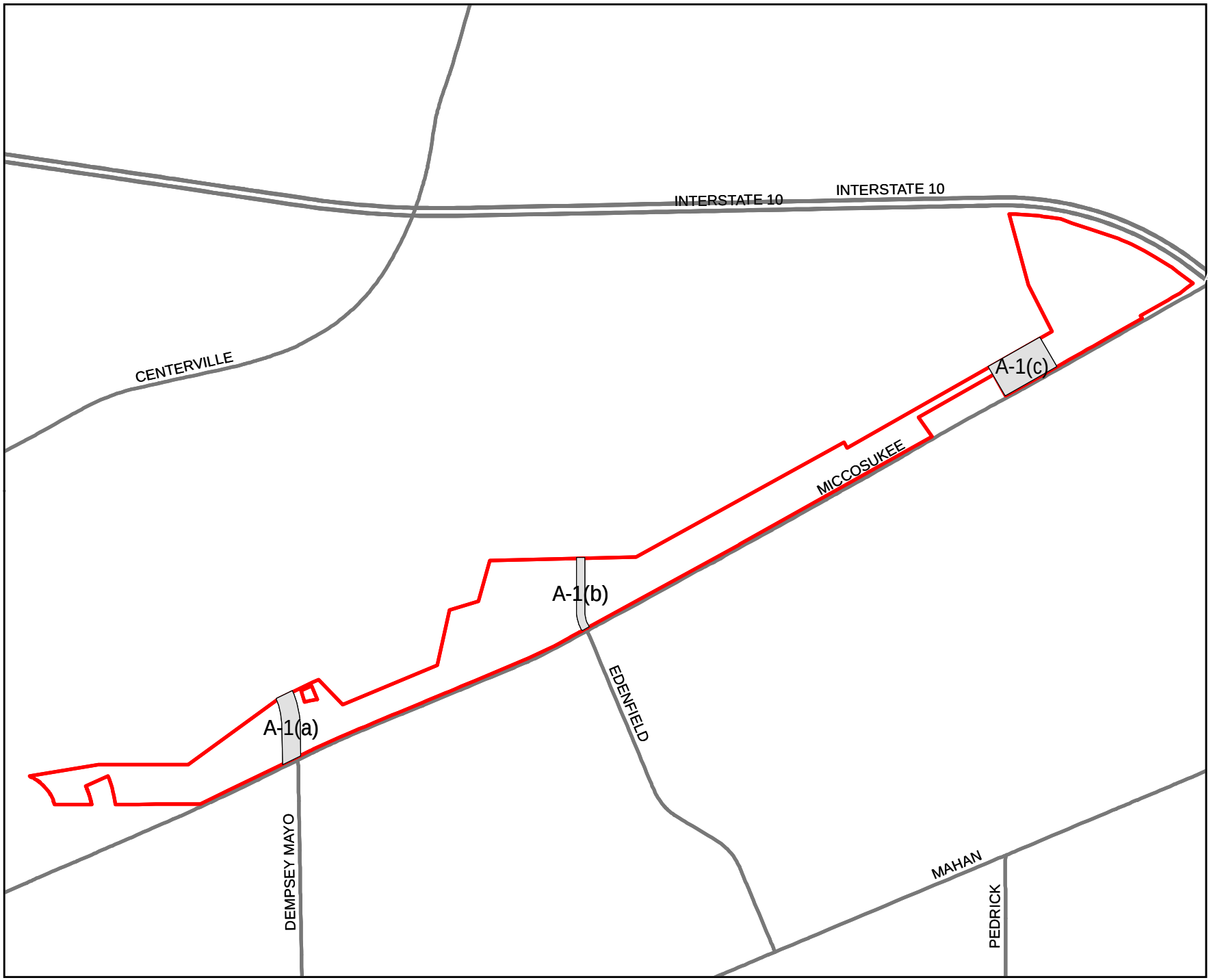
Map 8. Future Land Use



Map 9a. Roadway Easements



Legend

- Roadway Easements
- MCRG Boundary

Major Road

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential

0 475 950 1,900 Feet

TLCPD
Tallahassee-Leon County Planning Department

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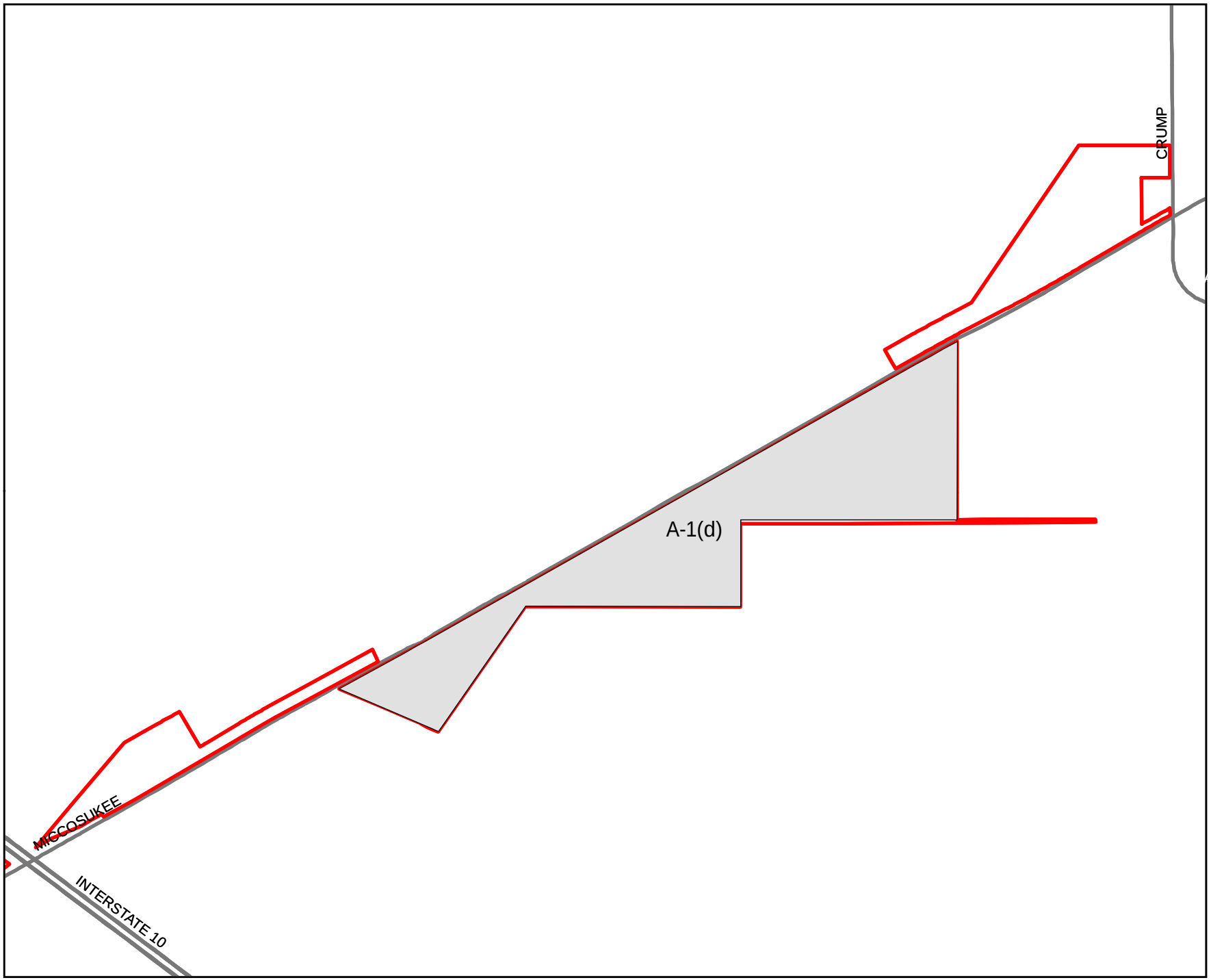
Map 9b. Roadway Easements



Legend

- Roadway Easements
- MCRG Boundary

Major Road

CLASS

- Interstate 10
- Federal
- Major
- Minor
- Residential

0 475 950 1,900 Feet

TLCPD
Tallahassee-Leon County Planning Department

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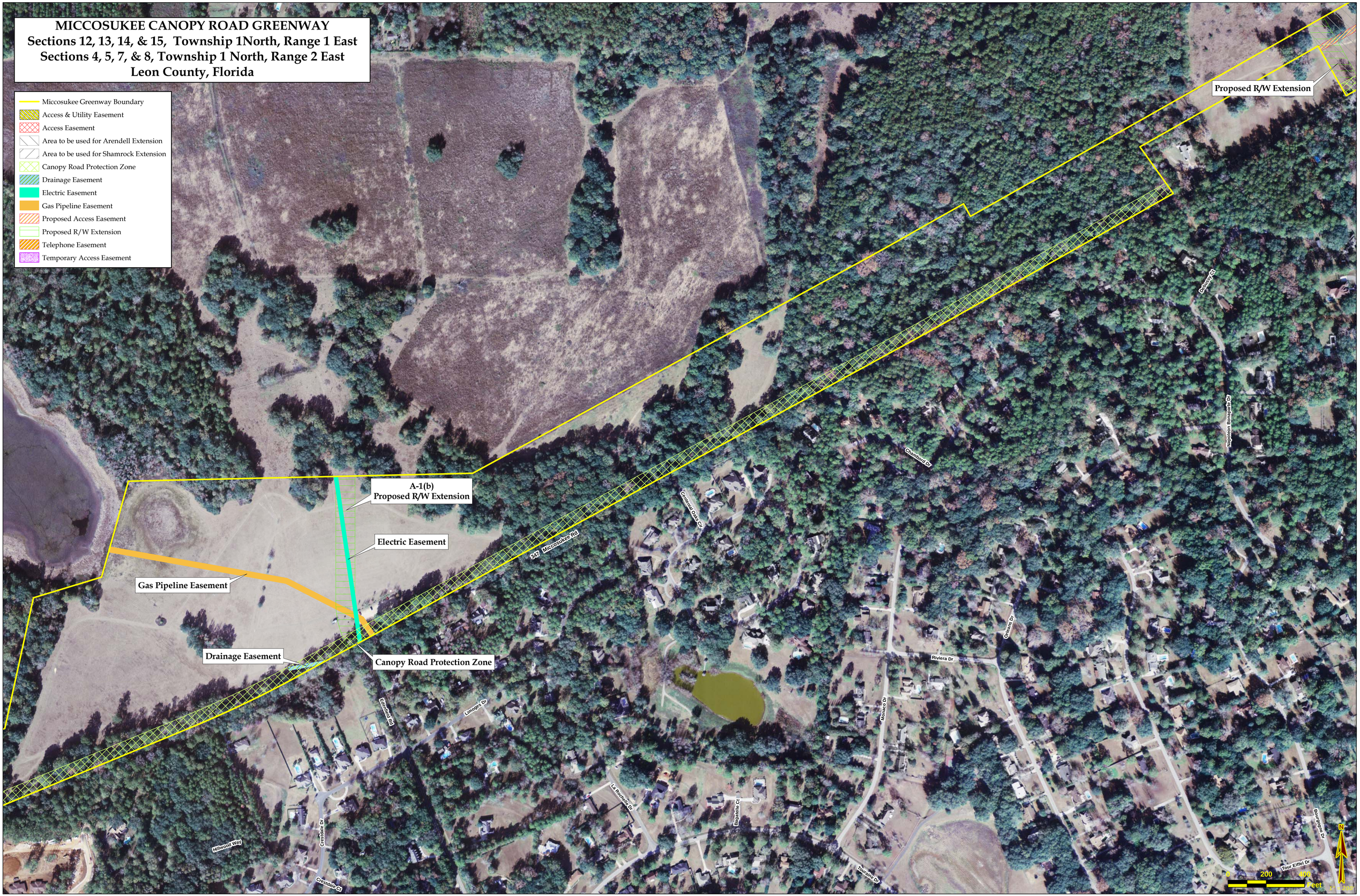
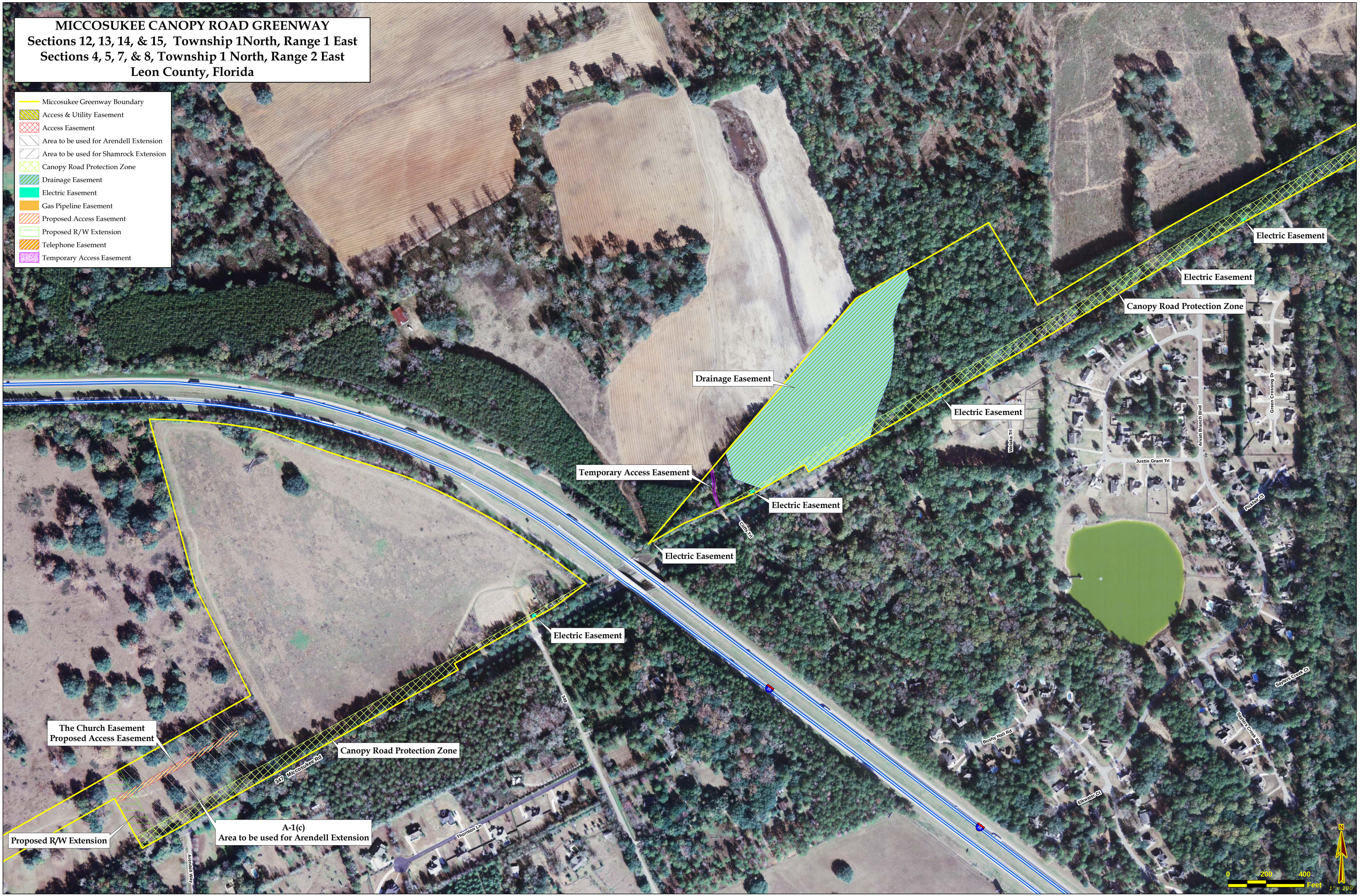
MICCOSUKEE CANOPY ROAD GREENWAY
Sections 12, 13, 14, & 15, Township 1North, Range 1 East
Sections 4, 5, 7, & 8, Township 1 North, Range 2 East
Leon County, Florida

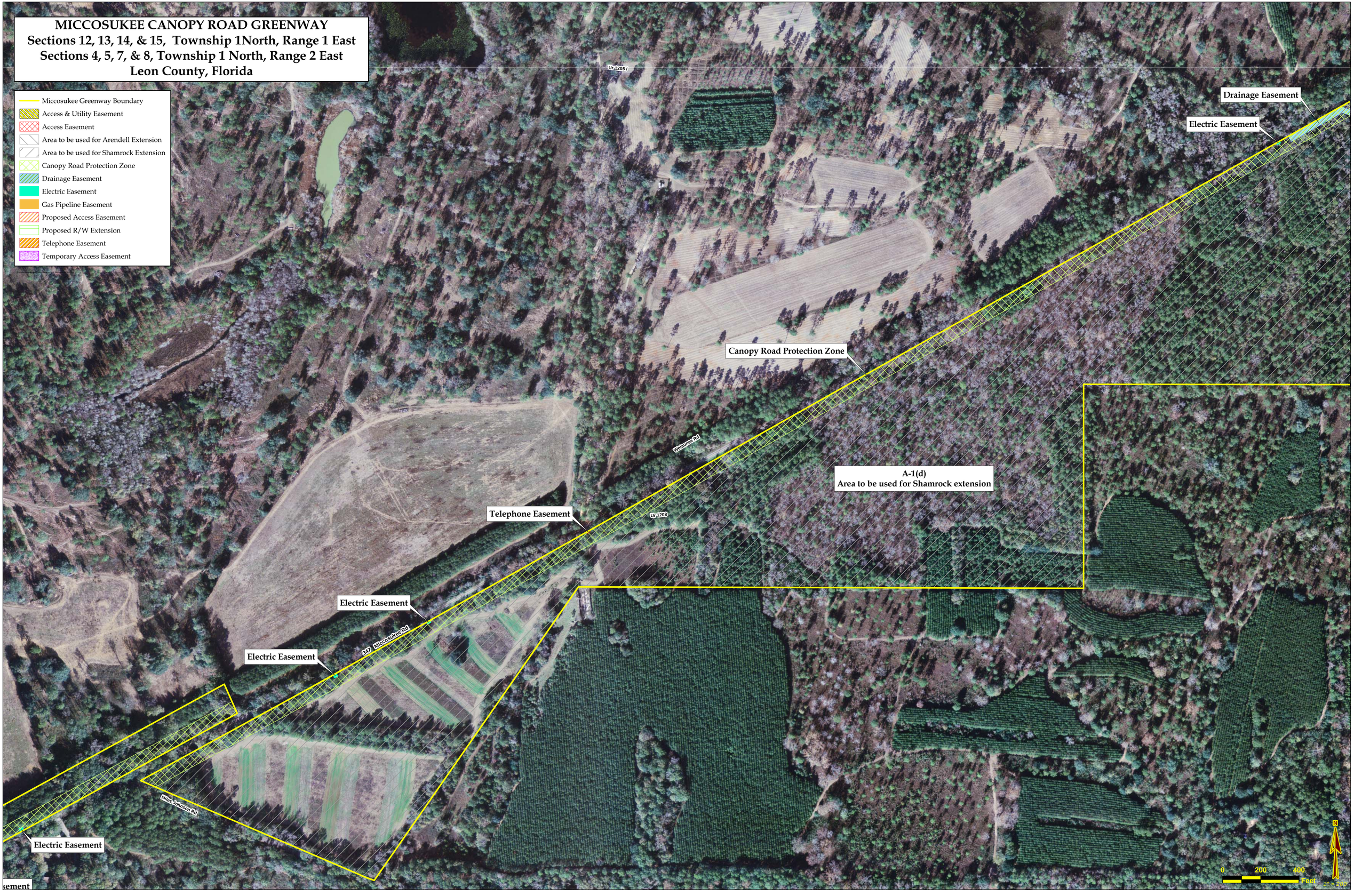
MICCOSUKEE CANOPY ROAD GREENWAY
Sections 12, 13, 14, & 15, Township 1North, Range 1 East
Sections 4, 5, 7, & 8, Township 1 North, Range 2 East
Leon County, Florida



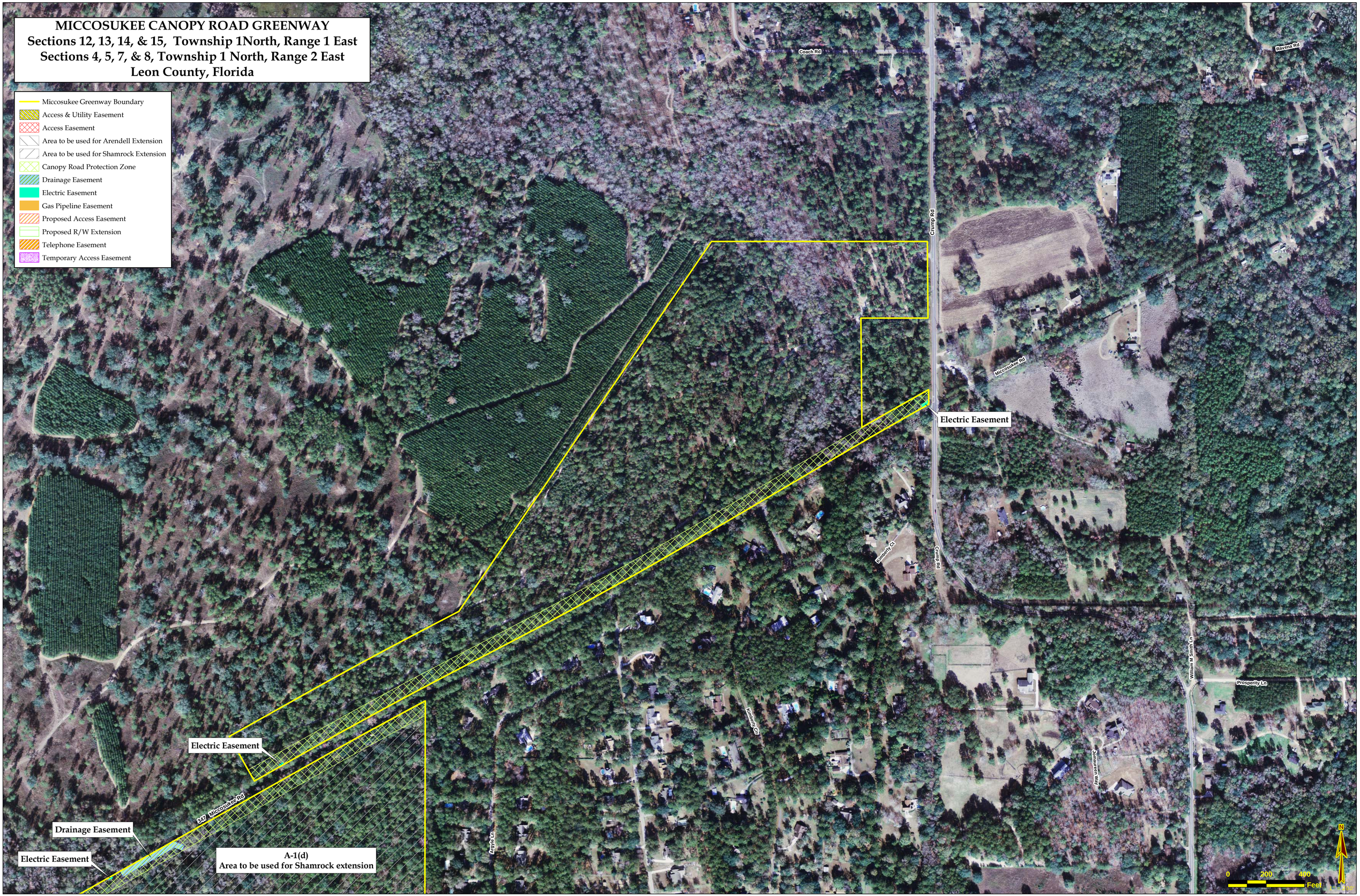
MICCOSUKEE CANOPY ROAD GREENWAY
Sections 12, 13, 14, & 15, Township 1North, Range 1 East
Sections 4, 5, 7, & 8, Township 1 North, Range 2 East
Leon County, Florida



MICCOSUKEE CANOPY ROAD GREENWAY
Sections 12, 13, 14, & 15, Township 1North, Range 1 East
Sections 4, 5, 7, & 8, Township 1 North, Range 2 East
Leon County, Florida



MICCOSUKEE CANOPY ROAD GREENWAY
Sections 12, 13, 14, & 15, Township 1North, Range 1 East
Sections 4, 5, 7, & 8, Township 1 North, Range 2 East
Leon County, Florida



FLORIDA
Natural Areas
INVENTORY

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

June 3, 2011

Robin Turner
Florida Department of Environmental Protection, Office of Greenways and Trails
3900 Commonwealth Boulevard, M.S. 795
Tallahassee, FL 32399

Dear Ms. Turner,

Thank you for requesting information from the Florida Natural Areas Inventory (FNAI). We have compiled the following information for your project area.

Project: Miccosukee Canopy Road Greenway

Date Received: 05/31/2011

Location: Leon County

Element Occurrences

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

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

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

Likely and Potential Rare Species

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.

Florida Resources
and Environmental
Analysis Center

Institute of Science
and Public Affairs

The Florida State University

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.

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. FNAI data may not be resold for profit.

This report is made available at no charge due to funding from the Florida Department of Environmental Protection, Division of State Lands.

Thank you for your use of FNAI services. If I can be of further assistance, please give me a call at (850) 224-8207.

Sincerely,

Michael O'Brien

Michael O'Brien
Data Services Analyst

Encl

Miccosukee Greenway

Leon County

Site boundaries are approximate.

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
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FLORIDA Natural Areas INVENTORY

Element Occurrences

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

Conservation Lands

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

Land Acquisition Projects

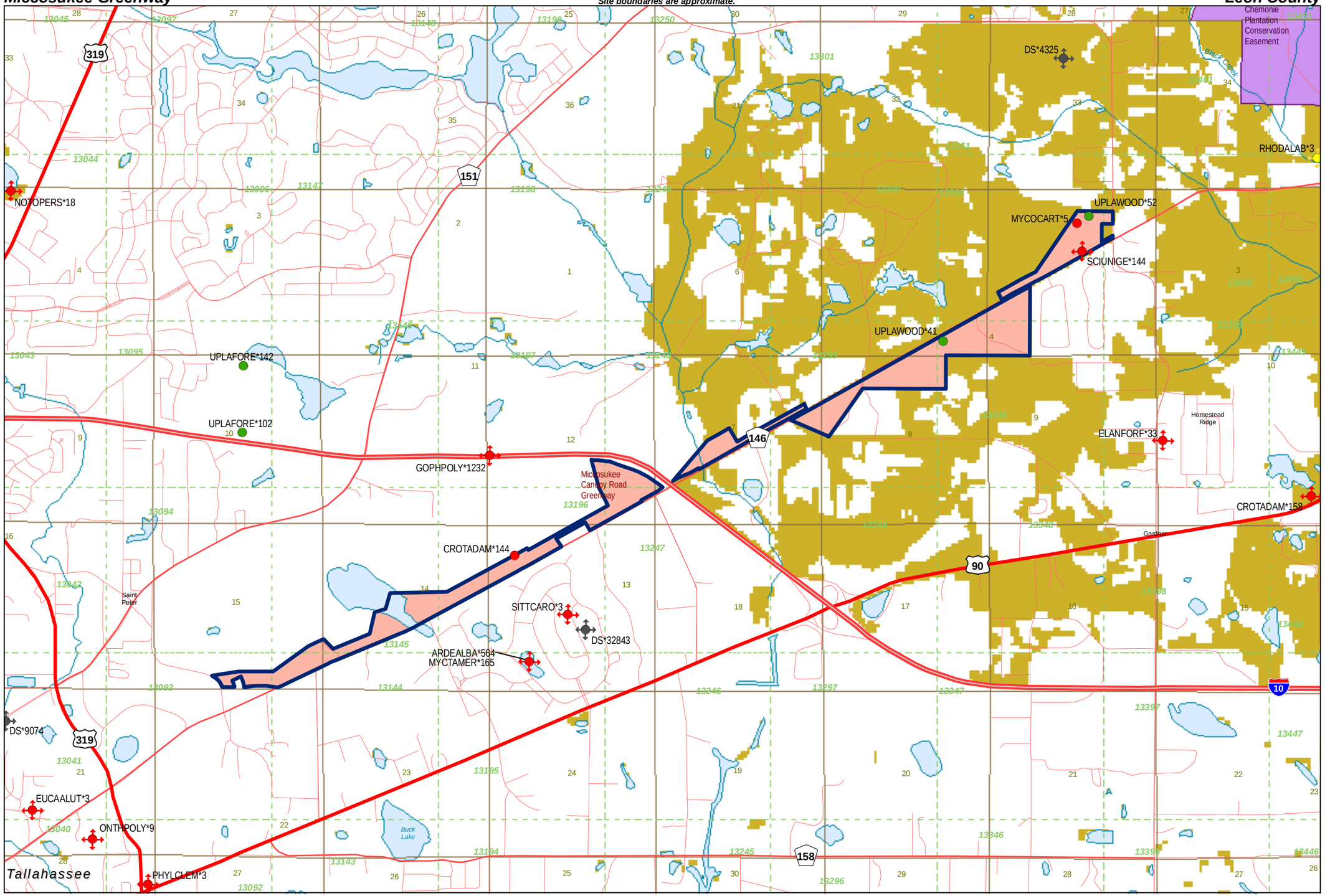
- Florida Forever Board of Trustees Projects

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

- County Boundary
- Interstate
- Turnpike
- Major Highway
- Local Road
- Railroad [Inactive railroads shown in Gray]
- Water

NOTES

Map should not be interpreted without accompanying documents.
Only element occurrences within 2 miles of the greenway are shown.



Map produced by MGO
Map Date: 02 June 2011

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Suite 200-C
Tallahassee, FL 32303
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Florida Natural Areas Inventory

DOCUMENTED ELEMENT OCCURRENCES ON OR NEAR
Miccosukee Greenway

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
ARDEALBA*564	*Ardea alba*	Great Egret	G5	S4	N	N	2010-11-15	2010-11-15, 2008-08-28: shallow stormwater pond probably excavated at site of natural ephemeral wetland; now incorporated into subdivision's green space adjacent to swimming pool, tennis court; surrounded by residences on 1-acre lots (PNDJAC01FLUS).	Foraging site. 2010-11-15: D. Jackson observed estimated 70-100 foraging great egrets in drying pond basin at 0830 h; number of birds has increased for last 2 weeks as water dropped; also smaller groups of wood storks and white ibis (PNDJAC01FLUS). 200
CROTADAM*144	*Crotalus adamanteus*	Eastern Diamondback Rattlesnake	G4	S3	N	N	2004-09-03	2004-09-03: Sandy trail in patchwork of upland mixed forest and improved pasture (PNDOET01FLUS). Subdivision with nearby undeveloped pasture and mixed woods.	2004-09-03: One adult, ca. 4 ft., crossing sandy trail from south to north (PNDOET01FLUS). 1995-06-03: One adult, ca. 4-5 ft., observed (PNDLAY02FLUS).
CROTADAM*158	*Crotalus adamanteus*	Eastern Diamondback Rattlesnake	G4	S3	N	N	1995-01-00	No general description given	1995-01-00: Many snakes, >/= 8, observed within barn floor while being disassembled; 5 of the snakes >/= 5 ft.; some of the snakes killed (U95CAI01).
DS*32843	*Data Sensitive Element*	Data Sensitive	G5	S2S3	N	N	2010-08-16	Data Sensitive	Data Sensitive
DS*4325	*Data Sensitive Element*	Data Sensitive	G5	S3	N	N	1991-01-29	Data Sensitive	Data Sensitive
DS*9074	*Data Sensitive Element*	Data Sensitive	G5	S3	N	N	1970-05-24	Data Sensitive	Data Sensitive
ELANFORF*33	*Elanoides forficatus*	Swallow-tailed Kite	G5	S2	N	N	1988-07-28	Upland Mixed Forest; old field or other mixed forest.	1988: D.E. Runde, GFC - Immature bird was calling and also 1 adult observed on 7/28 and 7/30. Same birds?
EUCAALUT*3	*Eucanthus alutaceus*	Mat Red Globe Scarab Beetle	GNR	S1S3	N	N	1959-11-01	1959-11-01: No description given (B73WOO01FLUS).	1959-11-01: One specimen was collected by G.W. Dekle (B73WOO01FLUS).
GOPHPOLY*1232	*Gopherus polyphemus*	Gopher Tortoise	G3	S3	N	ST	2008-05-24	2008-05-24: an upland area, including a large field with small pines, occurs on south side of I-10 across from location of road-killed tortoise; this may be the actual location of the occurrence (PNDJAC01FLUS, U08JAC04FLUS).	2008-05-24: D. Jackson and G. Guyot observed dead adult male tortoise on north shoulder of west-bound I-10 (PNDJAC01FLUS, U08JAC04FLUS).

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(850) 224-8207
(850) 681-9364 Fax
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Florida Natural Areas Inventory

DOCUMENTED ELEMENT OCCURRENCES ON OR NEAR
Miccosukee Greenway

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
MYCOCART*5	*Mycotrupes cartwrighti*	Cartwright's Mycotrupes Beetle	GNR	S2?	N	N	2007-12-13	2007-12-13: The general area was red oak woods interspersed with some upland pine and mesic areas. For more information, see the shapefile associated with U07ALM01FLUS.	2007-12-13: Two specimens were collected in disturbed red oak woods, a.k.a. pine oak hickory forest, along a sandy trail. One was dug from a 20cm burrow underneath a light covering of very old horse manure. The other was found walking on the surface at
MYCTAMER*165	*Mycteria americana*	Wood Stork	G4	S2	LE	FE	2010-11-15	2010-11-15, 2008-08-28: shallow stormwater pond probably excavated at site of natural ephemeral wetland; now incorporated into subdivision's green space adjacent to swimming pool, tennis court; surrounded by residences on 1-acre lots (PNDJAC01FLUS).	2010-11-16: 0900h, D. Jackson observed 90 storks of mixed ages standing in pond basin following morning rain that raised level a few inches. 2010-11-15: D. Jackson observed ca. 15 storks of mixed ages resting/foraging in drying pond basin at 0830 h; thi
NOTOPERS*18	*Notophthalmus perstriatus*	Striped Newt	G2G3	S2S3	N	N	ZZ	No general description given	Specimen (UM-128543), collector and date not available.
ONTHPOLY*9	*Onthophagus polyphemi polyphemi*	Punctate Gopher Tortoise Onthophagus Beetle	GNRTNR	S2S3	N	N	1968-02-24	1968-02-24: from a gopher tortoise burrow (B73WOO01FLUS).	1968-02-24: Eight specimens were collected from a gopher tortoise burrow by R.E. Woodruff (B73WOO01FLUS).
PHYLCLEM*3	*Phyllophaga clemens*	Clemens' June Beetle	G2	S1	N	N	1987-06-22	1987-06-22: No description given (B89WOO01FLUS).	1987-06-22: P.E. Skelley collected one specimen by using a blacklight (B89WOO01FLUS). 1970-06-14: Two specimens were collected at lights by G.H. Nelson (B89WOO01FLUS).
RHODALAB*3	*Rhododendron alabamense*	Alabama Rhododendron	G4	S2	N	LE	1997-05-29-PRE	Roadside (PNDBAK03FLUS).	1997-05-29pre: More or less 20 observed growing with R. canescens along roadside and hundreds of plants observed within land co-op (PNDBAK03FLUS).
SCIUNIGE*144	*Sciurus niger niger*	Southeastern Fox Squirrel	G5T5	S3	N	N	1989-01-27	improved pasture; upland hardwood forest	1989-01-27: D.E. Runde, GFC, observed 1 adult feeding and running.
SITTCARO*3	*Sitta carolinensis*	White-breasted Nuthatch	G5	S2	N	N	2008-06-18	2008-2009: residential subdivision with ca. 1-acre lots; front yards of various sightings include multiple large live oaks and other trees, with at a few large pines (PNDJAC01FLUS).	2009-09: D. Jackson observed foraging and calling individuals on various days, mostly on live oaks, from vicinity of 2311 to 2336 Bourgogne Drive at least (PNDJAC01FLUS). 2008-06-18 (0820 h EDT): D. Jackson observed one foraging on live oak and heard at

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax
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Florida Natural Areas Inventory

DOCUMENTED ELEMENT OCCURRENCES ON OR NEAR
Miccosukee Greenway

Map Label	Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing	Observation Date	Description	EO Comments
UPLAFORE*102	Upland hardwood forest		G5	S3	N	N	2001-02-13	2001-02-13: Small area of hardwood forest on a steep slope down to a stream flowing parallel to I-10; limestone and reddish sandstone outcrop along streambed (PNDJOH01FLUS)	2001-02-13: Upper slope covered by regenerating forest of Pinus taeda (70 feet tall; 12" dbh) forming 70% cover with a dense understory of saplings of Magnolia grandifolia, Quercus hemisphaerica, Q. nigra, and Carya tomentosa. On the midslope the pines a
UPLAFORE*142	Upland hardwood forest		G5	S3	N	N	2004	SLOPE FOREST.	2010: Prior to the 2010 natural community reclassification effort this EO had been known as Slope forest EO number 61 (see U10FNA01FLUS for updated community descriptions). 2004: Update to last obs date was based on interpretation of aerial photography (
UPLAWOOD*41	Upland mixed woodland		G2	S2	N	N	2007-12-17	2007-12-17: canopy too dense for development of the typically rich herbaceous flora associated with this community - stand appears to be recovering from cutting or some other disturbance and trees are quite dense (PNDJOH01FLUS).	2007-12-17: Canopy dominants with total cover about 40% are Carya alba-30% cover;Quercus falcata -5%, Pinus echinata-8%, and Quercus stellata; subcanopy and tall shrub layer covers about 20% and is composed of the first two species plus Quercus nigra, Co
UPLAWOOD*52	Upland mixed woodland		G2	S2	N	N	2007-12-13	2001-12-13: small stand of mainly deciduous hardwoods surrounded by pine-dominated woods (PNDJOH01FLUS).	2007-12-13: Canopy cover 50% composed of 50- to 60-ft tall trees of Quercus austrina, Carya alba, Quercus alba, Quercus stellata, and Quercus falcata; subcanopy covers 10% with 30- to 40-ft trees of Oxydendron arboreum, Cornus florida, and Liquidambar s

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Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Documented					
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Lampropeltis getula	Common Kingsnake	G5	S2S3	N	N
Mycotrupes cartwrighti	Cartwright's Mycotrupes Beetle	GNR	S2?	N	N
Mycteria americana	Wood Stork	G4	S2	LE	FE
Sitta carolinensis	White-breasted Nuthatch	G5	S2	N	N
Likely					
Ardea alba	Great Egret	G5	S4	N	N
Crotalus adamanteus	Eastern Diamondback Rattlesnake	G4	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Elanoides forficatus	Swallow-tailed Kite	G5	S2	N	N
Heterodon simus	Southern Hognose Snake	G2	S2	N	N
Mesic flatwoods		G4	S4	N	N
Mycteria americana	Wood Stork		S2	LE	FE
Rhododendron alabamense	Alabama Rhododendron		S2	N	LE
Sciurus niger niger	Southeastern Fox Squirrel	G5T5	S3	N	N
Upland hardwood forest		G5	S3	N	N
Potential					
Agrimonia incisa	Incised Groove-bur	G3	S2	N	LE
Aimophila aestivalis	Bachman's Sparrow		S3	N	N
Ambystoma tigrinum	Tiger Salamander	G5	S3	N	N
Amphiuma pholeter	One-toed Amphiuma	G3	S3	N	N
Andropogon arctatus	Pine-woods Bluestem		S3	N	LT
Asplenium heteroresiliens	Wagner's Spleenwort	GNA	S1	N	N
Athene cunicularia floridana	Florida Burrowing Owl	G4T3	S3	N	SSC
Brickellia cordifolia	Flyr's Brickell-bush	G2G3	S2	N	LE
Calamintha dentata	Toothed Savory	G3	S3	N	LT
Conradina glabra	Apalachicola Rosemary	G1	S1	LE	LE
Corynorhinus rafinesquii	Rafinesque's Big-eared Bat	G3G4	S2	N	N
Croomia pauciflora	Croomia	G3	S2	N	LE
Desmognathus apalachicolae	Apalachicola Dusky Salamander	G3G4	S3	N	N
Drymarchon couperi	Eastern Indigo Snake	G3	S3	LT	FT
Eucanthus alutaceus	Mat Red Globe Scarab Beetle	GNR	S1S3	N	N
Gopherus polyphemus	Gopher Tortoise	G3	S3	N	ST
Linum westii	West's Flax	G2	S2	N	LE
Litsea aestivalis	Pondspice	G3	S2	N	LE
Magnolia ashei	Ashe's Magnolia	G2	S2	N	LE
Matelea alabamensis	Alabama Spiny-pod		S2	N	LE
Matelea floridana	Florida Spiny-pod		S2	N	LE
Myotis austroriparius	Southeastern Bat	G3G4	S3	N	N
Neofiber alleni	Round-tailed Muskrat	G3	S3	N	N
Notophthalmus perstriatus	Striped Newt	G2G3	S2S3	N	N
Onthophagus polyphemi polyphemi	Punctate Gopher Tortoise Onthophag	GNRTNR	S2S3	N	N
Oxypolis greenmanii	Giant Water-dropwort	G3	S3	N	LE
Phyllophaga clemens	Clemens' June Beetle	G2	S1	N	N
Picoides borealis	Red-cockaded Woodpecker	G3	S2	LE	FE

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.

1018 Thomasville Road
Suite 200-C
Tallahassee, FL 32303
(850) 224-8207
(850) 681-9364 Fax

Florida Natural Areas Inventory

Biodiversity Matrix Report

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Listing
Pinguicula primuliflora	Primrose-flowered Butterwort	G3G4	S3	N	LE
Pituophis melanoleucus mugitus	Florida Pine Snake	G4T3	S3	N	SSC
Pityopsis flexuosa	Zigzag Silkgrass	G3	S3	N	LE
Platanthera integra	Yellow Fringeless Orchid	G3G4	S3	N	LE
Pycnanthemum floridanum	Florida Mountain-mint	G3	S3	N	LT
Rana capito	Gopher Frog		S3	N	SSC
Rhexia parviflora	Small-flowered Meadowbeauty	G2	S2	N	LE
Rhododendron austrinum	Florida Flame Azalea	G3	S3	N	LE
Ruellia noctiflora	White-flowered Wild Petunia	G2	S2	N	LE
Sarracenia leucophylla	White-top Pitcherplant	G3	S3	N	LE
Trillium lancifolium	Narrow-leaved Trillium		S2	N	LE
Ursus americanus floridanus	Florida Black Bear	G5T2	S2	N	ST*
Uvularia floridana	Florida Merrybells	G3	S1	N	LE
Xyris longisepala	Karst Pond Xyris	G2G3	S2S3	N	LE
Xyris scabrifolia	Harper's Yellow-eyed Grass	G3	S3	N	LT

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.

Elements and Element Occurrences

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

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

Element Ranking and Legal Status

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

FNAI GLOBAL ELEMENT RANK

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

FNAI STATE ELEMENT RANK

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

FEDERAL LEGAL STATUS

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

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

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

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).

FLORIDA Natural Areas INVENTORY

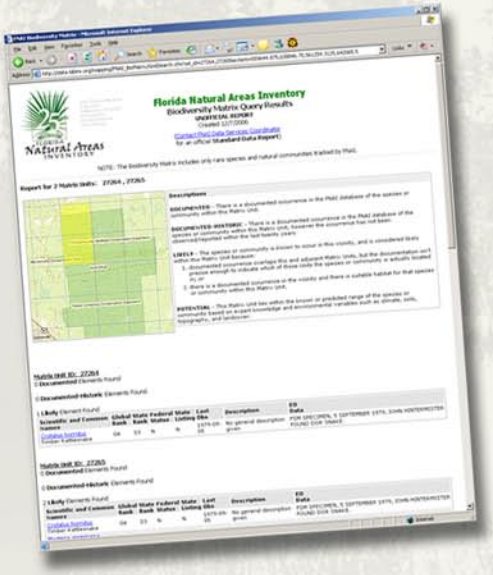
Technical Assistance Provided by:

FREAC
FLORIDA RESOURCES & ENVIRONMENTAL ANALYSIS CENTER AT THE FLORIDA STATE UNIVERSITY

FOR IMMEDIATE RELEASE

FNAI's Biodiversity Matrix Online

The Biodiversity Matrix Map Server is a new **screening tool** from FNAI that provides **immediate, free access** to rare species occurrence information statewide. This tool allows you to zoom to your site of interest and create a report listing documented, likely, and potential occurrences of rare species and natural communities.



The FNAI Biodiversity Matrix offers **built-in interpretation** of the likelihood of species occurrence for each 1-square-mile Matrix Unit across the state. The report includes a site map and list of species and natural communities by occurrence status: Documented, Documented-Historic, Likely, and Potential.

Try it today:

www.fnai.org/biointro.cfm

Please note: FNAI will continue to offer our Standard Data Report service as always. The Standard Data Report offers the most comprehensive information available on rare species, natural communities, conservation lands, and other natural resources.

CITY OF TALLAHASSEE
GROWTH MANAGEMENT DEPARTMENT
LAND USE AND ENVIRONMENTAL SERVICES DIVISION
(MAIL ADDRESS) 300 SOUTH ADAMS STREET
CITY HALL - MAIL BOX B-28
TALLAHASSEE, FLORIDA 32301
(LOCATION) 100 W. VIRGINIA ST.
TELEPHONE (850) 891-7100
OR CALL THE FLORIDA RELAY SERVICE TDD
AT 1-800-955-8771
www.state.fl.us/citytlh/growth/index/html

CITY OF TALLAHASSEE

LEON

LEON COUNTY
DEPARTMENT OF GROWTH AND
ENVIRONMENTAL MANAGEMENT
3401 WEST THARPE STREET
TALLAHASSEE FLORIDA 32303
TELEPHONE (850) 488-9300

TALLAHASSEE - LEON COUNTY NATURAL FEATURES INVENTORY

Shaded Area for staff use only. TER: _____

Attachments: ☒ Narrative ☒ Location Map ☒ Aerial Blueline ☒ Natural Features Map ☒ Natural Feature Overlay (If project is large or contains multiple features)

Property/Project Information:

Project Name: Miccosukee Road Greenway Park Total Acreage of Project Site 501.97

Parcel Tax ID # (s): 1114209010000

Development Site Address (or location): Miccosukee Road, from Fleischman Road to Crump Road

Ownership Information:

Owner: TIITF Telephone #: ( )

Mailing Address: 3900 Commonwealth Blvd., M.S. - 115 (Street Address) Tallahassee (City) FL (State) 32399 (Zip)

Owner Contact: _____ Telephone #: ( )

Consultant Information:

Firm: Genesis Group Telephone #: (850) 224-4400

Mailing Address: 820 E. Park Avenue, Building I, Suite 2000 (Street Address) Tallahassee (City) FL (State) 32301 (Zip)

Consultant Contact: Jim Sullivan Telephone #: (850) 224-4400 FAX (850) 681-3600

Applicant (Optionee) Information:

Name: _____ Telephone #: ( )

Mailing Address: _____ (Street Address) (City) (State) (Zip)

Other Contact Person (if applicable):

Name: _____ Telephone #: ( )

Mailing Address: _____ (Street Address) (City) (State) (Zip)

Feature Information: Check the items below which exist on site and describe in your narrative. Indicate whether you believe any of these features are altered or degraded to the extent they should not be regulated. Include the name of the closed basin or special dev. zone:

- ☐ Native Forest
- ☐ High Quality ☒ Mature Successional Forest
- ☒ Significant Grades (10 to 20%)
- ☐ Severe Grades (over 20%)
- ☐ Listed Species
- ☐ Archaeological or Historical Sites
- ☒ Floodplain
- ☒ Wetlands
- ☒ Watercourses
- ☐ Waterbodies
- ☐ Special Development Zone: _____
- ☐ Other: _____
- ☒ Karst Features
- ☒ Canopy Road
- ☐ Wells (Monitor or Supply)
- ☐ Closed Basin(s): (See attached repo

Has a Cultural Resource Assessment been performed? Yes/No If so, provide copy of clearance letter or results from preliminary survey.

Drainage Basin? ☐ Lake Jackson ☒ Lake Lafayette ☐ Lake Munson ☐ Other _____

Watershed, if any? (See attached report) Predominant Soil Types: (See attached report)

Provide the following statistics for the Natural Features identified on your site. Continue on a separate sheet if needed.

Natural Feature	Square Feet	% of Site
(See Attached List)		

In some instances, the boundaries of natural features may overlap. For example, 4 ac. of significant slopes and 6 ac. of severe slopes may occur within a 24 ac. Native forest.

NOTE: PROPERTY OWNER, CONSULTANT, APPLICANT (OPTIONEE), AND OTHER CONTACT PERSON WILL BE COPIED ON ALL CORESPONDENCE FROM THE GROWTH MANAGEMENT DEPARTMENT

Expiration Date: 9/30/00
Revised: 8/31/5

CHECKLIST

In order for an application to be eligible for review, the following materials should be provided:
Verification: Mark boxes with an "X" to indicate features on site or label "N/P" if they are not present.

☒ 1. This completed application form and checklist.

☒ 2. Application fee.

☒ 3. **Location Map with north arrow.**

☒ 4. **A narrative describing the natural features, wildlife and environmental characteristics present on the site.** Include any information about past activities that may have contributed to the present day site conditions. The narrative should describe the vegetation on site. It may be helpful to compare the site vegetation to the community types identified in "Guide to the Natural Communities of Florida" or comparable reference materials that provide qualitative or quantitative descriptions of Leon County vegetation. The guide is available for purchase from the CARL Program, Division of the State Lands, (850) 487-1750. Ecosystems of Florida, Meyers and Ewel, 1991, University of Central Florida Press is another useful reference. Discuss wildlife habitat characteristics of the site and list any wildlife species observed or anticipated to be on site. Additional resources for listed species information include the Florida Game and Fresh Water Fish Commission at (850) 488-6661, FAX (850) 922-5679 and the Florida Natural Areas Inventory at (850) 224-8207. If the site is greater than 20 acres, a Florida Natural Areas Inventory will be required and a copy must be included with this submittal.

☒ 5. **Site reference information.** Include property boundary corner stakes, wetland boundary flags, other environmental constraint boundary flags, survey points, numbered trees, etc. Use highly visible surveyor's tape to delineate features.

☒ 6. **A Contour Map**, at an appropriate engineering scale (typically 1"=20' or 1"=30') and contour interval (typically 2' for the City and 4' for Leon County). The contour map should serve as the base for the Natural Features map.

☒ 7. **A Natural Features Map.** The boundaries or locations, of the following should be surveyed and depicted on the natural features map:

☒ (a) Property boundaries and other on site location information from 5, above.

☒ (b) Native Forest, High Quality Successional Forest (City of Tallahassee), Mature Successional Forest (Leon County).

☒ (c) Waterbodies, Watercourses, Wetlands, Seepage slopes

☒ (d) Floodplains, 25 and 100 year. **The 100 year flood elevation** is identified for projects that have all or a portion of the property located within the 100 year floodplain. The base flood elevation should be determined as follows: 1. **Under no circumstances can a base flood elevation be accepted which is lower than that specified in the latest FEMA study.** 2. For sites within a 100 year floodplain, as defined by the EMO/EMA, where a FEMA base flood elevation was not provided, the applicant should either: a.) Use the best available data from the inventory of drainage studies to determine the base flood elevation. Available studies may include, but are not limited to, the USGS-91 study, a local government approved drainage study, or a private engineering study. b.) Use the certified results of a drainage study performed by a professional engineer.

(e) Grades/Slopes (differentiate between slope categories by shading, cross hatching, etc.):

☒ (1) Significant grades 10-20% slopes

☐ N/A (2) Severe grades >20% slopes

☒ (f) Soil series as indicated in the Soil Survey of Leon County.

☒ (g) Karst features: Discuss the method of detection in narrative and indicate if they are active or inactive.

(h) Wells or areas susceptible to groundwater contamination:

☐ N/A (1) Wells (water supply or monitoring) located on or just off site.

☐ N/A (2) Areas where aquifer is susceptible to contamination, or is known to be contaminated.

☐ N/A (i) Tree Tags - On sites with dense vegetation or numerous trees, tagging and numbering of some **protected trees** should be provided for on site orientation. Numbers should correspond to trees noted on the contour map. **Consult with Review staff before undertaking extensive tree tagging or surveying.**

☒ (j) Wildlife. Identify the location of any known threatened, endangered or species of special concern. When development activity affects listed species, a Habitat Suitability Assessment and Habitat Protection and Management Plan approved by local, state and federal resource management agencies is required during the Environmental Impact Analysis.

☒ (k) Canopy Road Protection Zone.

☐ N/A (l) Special Development Zone.

☒ (m) Cultural Resource Assessment. A location map, a contour map, the section, township and range the project is located in, and project description should be sent to the State of Florida, Bureau of Historic Preservation, Compliance Review Section, to determine whether there is known or potential significant cultural resources on site. Their office is located in the R. A. Gray Building, and mailing address is 500 South Bronough Street, Tallahassee, FL 32399-0250, Telephone (850) 487-2333. A copy of the clearance letter or the results of a preliminary survey must be included with the Features Inventory.

☒ 8. A **Blue-line aerial.** Provide the full section sheet, at 1" = 200' scale. Label site property boundaries on the aerial. Large sites or sites with multiple natural features may require additional aerial photography. Photographs may be purchased from the Department of Transportation Aerial Surveys Division, (850) 488-2250.

☐ N/A/ 9. **Mylar overlays** may be required for large sites or sites with multiple natural features graphically depicting the natural features of the site. Scale of overlays should be the same as the aerials provided, as well as, that of the proposed site plan used during the Environmental Impact Analysis.

MICCOSUKEE GREENWAY

NATURAL FEATURE AREAS

NATURAL FEATURE	AREA	% OF SITE
• KARST	27.403AC+1-	5.46%=1-
• SIGNIFICANT GRADES	3.528AC+1-	0.70%+1-
• FLOOD PLAIN	10.948 AC+1-	2.18%+1-
• WATERCOURSE	1564 LF+1-	.007%+1-
• MATURE SUCCESSIONAL FOREST	116.80AC+1-	32.27%+1-
• WETLANDS	2.226AC+1-	0.44%+1-
• CANOPY ROADS	44.631AC+1-	8.89%+1-

Miccosukee Road Greenway: Natural Features Inventory

by
Helge R. Swanson
Russell H. Swanson
and
Taramati V. Shenoy

January 2000

Introduction

This study presents a Natural Features Inventory (NFI) for the Miccosukee Road Greenway corridor. The methodology used is consistent with the requirements of the Leon County Environmental Management Act, Section 10-346 and associated guidelines. All references used are cited. All NFI features identified are described in this paper and mapped on the attached NFI Overlay maps. NFI features definitions are contained in Appendix A. The NFI Overlay maps consist of annotated features on five (5) 1:2400 GIS basemaps. These are included as Maps 1-5 attached and summarized in Table 1. Figure 1 is a vicinity map for the study area.

Overview of the Study Area

The Miccosukee Road Greenway corridor is a highly diverse and interesting transect through northeastern Tallahassee's Red Hills Region that is approximately six miles in length. Characteristically, the rolling clayhill topography is dissected by both surface water drainages and karst valleys typical of the area's geomorphology. A number of prime examples of this unique landform are evident, including: Dove Lake and it's karst-formed, interrupted ravine tributaries; the Welaunee-Lafayette Oaks Karst Valley; the Miccosukee Sinks Recharge area; the Central Lafayette Closed Basins; and the braided Karst-valley floodway of the Alford Arm Creek. The live oak-lined canopy corridor of Miccosukee Road, a historic and scenic roadway currently designated and regulated as a Canopy Road, is one boundary of the study area.

As stated, the study area encompasses a roughly six-mile, linear transect through northeastern Leon County, Florida and is approximately 500 acres in total area. The study area is an east-west cross-section through the northeast quadrant of the Tallahassee Hills Physiographic Region, and includes numerous karst formed closed basins, karst valleys and Alford Arm Creek, a major tributary to Lake Lafayette and the Lafayette Lowlands Physiographic Region.

The western end of the study area begins just east of Fleischmann Road in the CMC (Capital Medical Center) Closed basin, which is dominated by an office-commercial area, and is the historical impetus for many of the local closed basin flood and development regulations. The Maylor, Lafayette Oaks and Welaunee Closed

Basins are crossed proceeding east along the corridor. Each of these karst formed "pocket basins" have a history of flooding problems including the extensive home flooding in the Lafayette Oaks neighborhood during the 1994 floods. Thus, the western end of the study area is acutely sensitive to the flood volume increases inevitably resulting from urban land uses. In this regard, development of the low intensity greenway should obviate some of this future vulnerability.

Collectively, this area of the 51,000 acre Lake Lafayette Drainage Basin, is referred to as the Central Lafayette Closed Basins. The balance of the Study area falls within portions of the Lake Lafayette Drainage Basin's Alford Arm Watershed , I-10/90 East Watershed, Miles Watershed and Martinez Watershed. These and other contributing watersheds come together at a major confluence of Alford Arm Creek north of the study area. Surface water drainage then proceeds southward into Alford Arm and the pond cypress wilderness of Lower Lake Lafayette.

The proposed trail parallels Miccosukee Road within or adjacent to various areas of typical vegetative associations including: pine lands, mixed hardwood and oak-pine-hickory forested uplands; wetlands include bottom land, hardwood swamps, freshwater marshes, forested wetlands and clay hill lakes. Scenic vistas range from canopy tunnels, to meadowlands, pastures, rural neighborhoods and pine timberlands. The topography is rolling, varying in elevations from clayhill domes at or near 230 feet NGVD to lowlands and flatter terrain at or around 100 feet NGVD. At the eastern end of the greenway lower Clayhill domes are at or near 200 feet NGVD. Erosional and karst ravines dissect the study area. Flat, sandy depressions occupy the bottom land areas of closed basins; several have waterbodies with littoral marshes.

Land use within the study area and immediate vicinity is agricultural throughout Welaunee Plantation. There is a scattering of low density, single family residential neighborhoods along the Miccosukee Road corridor. No commercial or high density-intensity land uses exist in the study area, although the CMC Closed Basin to the west of the western trail head is developed with a mix of health care, office and multi-family uses. There is a small, rural family-operated grocery store located at the Crump and Miccosukee Road intersection near the proposed eastern trail head.

Natural Features Inventory

A Natural Features Inventory was completed for the study area which included map analysis, field verification, sampling and a literature review of applicable reference materials as well as information from a previous greenway study completed in 1996 for the Trust for Public Lands (TPL). Additional surveys were completed for threatened and endangered species (Greene, 1999; Means, 1996) and forest associations (Means, 1996). Mapped data included Leon County ESA maps (Swanson et. al. 1988); Topographic Quadrangles,1:24000 scale (USGS, 1982) ; Two-Foot Contour Topographic Maps, 1:2400 scale (Kimball, 1988); GIS Basemap overlays on orthophoto quads, 1:2400 scale, (Leon County, 1999 and Genesis Group, 1999) and soils survey data (SCS, 1981). Literature reviewed is cited where

referenced. All mapped NFI features were verified by field observations in conjunction with a general reconnaissance of the study area and sampling stations distributed throughout. A final NFI overlay was prepared by annotating features onto 1"=200' GIS Orthophoto Quadrangle Basemaps. These are contained as Maps 1-5, attached.

The balance of this report includes a Study Area Segment Analysis which presents a detailed analysis of NFI features for each of the 5 segments of the Miccosukee Greenway (A); a Threatened and Endangered Species Assessment (B); and a Cultural Resources Assessment (C).

A. Study Area Segments Analysis

The following narrative presents NFI features and associated information for each study area segment and NFI map. Table 1 includes a listing of all NFI features by type and size. Miccosukee Road, a designated and regulated Canopy Road, is continuous throughout the study area. The Canopy Road Protection zone is indicated on each segment of the NFI Overlay.

1. Fleischman Road to Dove Lake

The first segment of the study area covers 6200 feet from the western trail head near Fleischman Road to Dove Pond, and is shown on NFI Overlay Map 1 of 5. The segment crosses four watersheds including CMC Closed Basin, Maylor Closed Basin, Welaunee Closed Basin and Lafayette Oaks Closed Basin. Topography is rolling; soils include Orangeburg fine sandy loam and an area of Albany loamy sand associated with Dove Lake and Dove Pond. Vegetation is mixed; pine-hardwood forest cover over 80% (approx.) with the balance including pasture with live oak clusters and small areas of marsh. ESA features include 4 small significant grade polygons (SG 1-4), 2 karst depressions (KD1-2) and 2 wetlands (WL1-2).

The segment includes 5 sampling stations as follows:

Station 1:

This station is located at the trail head, i.e. 0.0 miles. N 30 degree 28.764' and W 084 degrees 13.110'. The vicinity was forested in a relatively young, old field successional type with a dense understory. The forest was an oak-pine association. Southern red oak *(Quercus falcata)* was the dominant oak in the area and water oak *(Quercus nigra)* were seen along with the dominant shortleaf pine *(Pinus echinata)*, including some large ones with diameters at or near 22" dbh. Slash pine *(Pinus elliottii)* was also observed. The topography was of a gently rolling type, with the grades ranging from 3% to 6%. A water tower was located to the south of the station. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS

Station 2:

This station is located at 300 feet from the trail head, N 30 degrees 28.765' and W 84 degrees 12.981'. It is a sloped forested area, including 2 areas of significant slopes (10% to 20%) with some open understory. The flora observed in the area included a mix of shortleaf pine *(Pinus echinata)* and slash pine *(Pinus elliottii)*, dominated by water oak *(Quercus nigra)*, some Japanese climbing fern, with southern

magnolia *(Magnolia grandiflora)*, sweetgum *(Liquidamber styraciflua)*, and wax-myrtle *(Myrica cerifera)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS

Station 3:

Station 3 is located at 1800 feet from the trail head, N 30 degrees 28. 774' and W 084 degrees 12. 759', amidst a sloped forested area. One small significant slope (10% to 20%) was observed, while the rest of the topography is gently rolling. The vegetation in the area included a dominance of shortleaf pine *(Pinus echinata)*, sweetgum *(Liquidamber styraciflua)* and water oak *(Quercus nigra)* along with large slash pine *(Pinus elliottoii)*, the largest with a diameter of 35"dbh, and several laurel oak *(Quercus lauriflolia)*, live oak *(Quercus virginiana)*, southern red oak *(Quercus falcata)* , and wax-myrtle *(Myrica cerifera)* . No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS

Station 4:

Station 4 is located 4000 feet from the trail head, N 30 degrees 28. 895' and W 84 degrees 12. 489'. This area indicated the end of the gently sloped forest with the overall topography being of a gently rolling type with the presence of open pasture on one side. The observed trail split near this station. The vegetation in this area included the dominant shortleaf pine *(Pinus echinata)* , large live oak *(Quercus virginiana)* of diameters up to 43.5" dbh (largest), water oak *(Quercus nigra)*, wax-myrtle *(Myrica cerifera)*, sweetgum *(Liquidamber styraciflua)*, and black cherry *(Prunus serotina)* . No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS

Station 5:

Station 5 is the final station of Segment 1, and is 5400 feet from the trail head at N 30 degrees 28. 975' and W 84 degrees 12. 185', in the vicinity of Dove Lake and its associated Dove Pond. Both waterbodies and associated wetlands were dry on this date. Open pastures were observed in the area with grasses to the north and sloped forest to the south. The topography was of a gently rolling type, with slopes less than 10% with the exception of a slope approaching 9% was observed. Vegetation included a dominance of shortleaf pine*(Pinus echinata)*, and water oak *(Quercus nigra)* along with some live oak *(Quercus virginiana)* and several southern red oaks *(Quercus falcata)*. Mockernut hickory *(Carya tomentosa)* were also seen to be dominant. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS. See Appendix B for additional information concerning Dove Lake and Dove Pond.

2. Dove Pond to Arendell Road

The second segment of the study area covers from 6200 to 13000 feet, from Dove Pond to Arendell Road and is shown on NFI Overlay Map 2 of 5. The segment crosses three watersheds, the Welaunee Closed Basin, the Lafayette Oaks Closed Basin (along the south side of Miccosukee Road) and at the eastern end, the I-10/90 East Watershed of the Lake Lafayette Drainage Basin. The topography is gently rolling; soils are Orangeburg fine sandy loam, with three small polygons of Lucy fine

sand, Lynchburg fine sandy loam, and Albany loamy sand associated with Dove Pond. ESAs include 1 wetland (WL1), and 1 small significant grade polygon (SG1).

This segment includes 3 sampling stations as follows:

Station 6:

Station 6 is located 7200 feet from the trail head at N 30 degrees 29.232' and W 84 degrees 11.911' and east of Dove Pond. The area is open pasture with gently rolling topography. Slopes are not greater than 4%. Hedgerows along old fence lines consist mainly of live oak *(Quercus virginiana)* and water oak *(Quercus nigra)*. At least one flowering dogwood *(Cornus florida)* was observed. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999 by: HS, RS

Station 7:

Station 7 is located 9200 feet from the trail head at N 30 degrees 29.232' and W 84 degrees 11.541'. The area is an open meadow following a wooded trail segment. Slopes are minimal at 1%. The meadow is surrounded by live oak *(Quercus virginiana)* and water oak *(Quercus nigra)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999 by: HS, RS

Station 8:

Station 8 is located 11500 feet from the trail head at N 30 degrees 29.395' and W 84 degrees 11.201'. The station has a dense understory. Slopes to the east are at 8%, while terrain to the west, north and south is flat. Soils are sandy clay. The forest is dominated by water oak *(Quercus nigra)* and laurel oak *(Quercus laurifolia)*. Also present are slash pine *(Pinus elliottii)* and at least one mockernut hickory *(Carya tomentosa)*. Testerina P. B. Church is on a hilltop at 11700 feet with a dense understory and tree cover including shortleaf pine *(Pinus echinata)* and southern red oak *(Quercus falcata)*. There was a control burn observed at 12800 feet, with live oak *(Quercus virginiana)* and water oak *(Quercus nigra)* in clusters in a pasture. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS

3. Arendell to near Miles Johnson Road

The third segment of the study area covers from 13000 to 19750 feet from Arendell Road to near Miles Johnson Road. The segment is within the I-10/90 East Watershed of the Lake Lafayette Drainage Basin. The topography is gently rolling, and is dissected by the karst valley lowlands associated with the Alford Arm Creek and floodway. Soils are Orangeburg fine sandy loam, with two small polygons of Ocilla fine sand, and Pelham fine sand associated with the Alford Arm Creek lowlands. ESAs include 1 floodway (FP1), 1 wetland (WL3), 1 watercourse (WC1), and 2 karst features (KD 3 and KD 17).

This segment includes 2 sampling stations as follows:

Station 9:

Station 9 is located 2.9 miles from trail head N30 29.645' and W84 10. 726'. It is a large open hay field just west of Interstate 10. Slopes range up to 9%. A few large live oak *(Quercus virginiana)* remain in the pasture. The hedgerow along the southern

boundary consists of laurel oak *(Quercus laurifolia)*, water oak *(Quercus nigra)*, live oak *(Quercus virginiana)*, and shortleaf pine *(Pinus echinata)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS

Station 18:

Station 18 is located 17150 feet from the trail head. It is a forested floodplain adjacent to a littoral wetland (WL 3) associated with Alford Arm Creek (WC 1). At this location, the creek is braided and meandering. No flows or areas of saturation or inundation were observed on this date. The channel is well-scoured and sandy sediments and deltas are evident throughout the area, suggesting potentially high volumes and rates of flow. The adjacent wetland and floodplain is flat with a relatively open understory. Red maple *(Acer rubrum)*, ironwood *(Carpinus caroliniana)* and water oak *(Quercus nigra)* were observed as dominant tree species in the wetland. Transitional areas contained laurel oak *(Quercus laurifolia)*, water oak *(Quercus nigra)*, live oak *(Quercus virginiana)*, and shortleaf pine *(Pinus echinata)*. Figure 2 is a segment of the FIRM Map for this portion of the 100 year flood plain. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/16/1999; by: HS, RS, TS

4. Near Miles Johnson Road to the Oak-Pine-Hickory Forest

The forth segment of the study area covers from 19750 to 26500 feet, from near Miles Johnson Road to the Oak-Pine-Hickory Forest. The segment crosses three watersheds including Miles Watershed, Miccosukee Sinks Closed Basin 1 (previously unmapped), Miccosukee Sinks Closed Basin 2 (previously unmapped). The topography is rolling with the sudden and substantial presence of karst features becoming evident east of Miles Johnson Road. All features observed were of a subsidence type, and were found to be relatively shallow, with gently sloping, contoured sides. Feature bottoms presented no evidence of wetlands or elevated water table, suggesting that these features have significant ground water recharge potential. This cluster of sinks was designated as the Miccosukee Karst Field in a previous work (Swanson and Means, 1996). The largest feature is an 11.3 acre dry depression (KD 4); another feature (KD 7), is a 7.2 acre compound depression containing four separate karst depressions. Soils are Orangeburg fine sandy loam throughout. ESAs include 16 karst features (KD 4-16, 18-20), and 2 mature succession forest polygons (MSF 1-2).

This segment includes 3 sampling stations as follows:

Station 10:

Station 10 is located 20450 feet from the trail head, just east of Miles Johnson Rd. at N 30 degrees 30.061' W 84 degrees 09.712'. The area is a large open depression characteristic of the Miccosukee Karst Field covering that region. The area is an abandoned agricultural field with slopes around 5%. Hedgerows consist mainly of water oak *(Quercus nigra)* and live oak *(Quercus virginiana)* with some sweetgum *(Liquidamber styraciflua)* and shortleaf pine *(Pinus echinata)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS

Station 11:

Station 11 is located 24250 feet from the trail head, in an area of alternating abandoned agricultural fields and forests at 30 degrees 30.317' N and 84 degrees 08.943' W. Forests are dominated by southern red oak *(Quercus falcata)*, mockernut hickory *(Carya tomentosa)*, and shortleaf pine *(Pinus echinata)*. At least one post oak *(Quercus stellata)* was observed. This forest area has been designated as a mature successional forest (MSF 1). No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS. See Appendix C for additional information on the Oak-Pine-Hickory Forests.

Station 17:

Station 17 is 25300 feet east of the trail head, and west of the farthest eastern point of the portion of the greenway on the southside of Miccosukee Rd. where the Miccosukee Meadows subdivision is located and ~50 yards north of the nearest corner of the property boundary. The forested rolling topography is dominated by shortleaf pine *(Pinus echinata)* and mockernut hickory *(Carya tomentosa)*. Slopes range between 3% and 6% and are more steep in karstic subsidence depressions that are scattered throughout this region. Roughly100 yards from the corner referenced above near station 17 the mockernut hickory of the hickory/pine association gives way to either southern red oak *(Quercus falcata)*, or live oak *(Quercus virginiana)* and water oak *(Quercus nigra)*. This second forest area also has been designated a mature successional forest (MSF 2). No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/29/1999; by: RS, TS

5. Oak-Pine-Hickory Forest to Crump Road

The fifth and final segment of the study area covers from 26500 to 32300 feet from the Oak-Pine-Hickory Forest to the eastern trail head at Crump Road. The segment crosses two watersheds including the Miles Watershed and Martinez Watersheds of the Lake Lafayette Drainage Basin. The topography is rolling and karst features have disappeared from the landscape. Soils are Orangeburg fine sandy loam with two exceptions, a small polygon of Albany loamy sand in a lowland area near an abandoned farm site at station 16, and a strip of Plummer fine sand along the shallow valley containing WC 4. ESAs include 3 watercourses (WC 2-4), 2 mature successional forest polygons (MSF 2-3) and 1 significant grade (SG 6) associated with the small ravine containing WC 4.

This segment includes 5 sampling stations as follows:

Station 12:

Station 12 is located 31850 east of the trail head, near the eastern terminus of the greenway at Crump Rd., N 30 degrees 31.160', and W 84 degrees 07.907', and next to an intermittent water course. The watercourse is fed by a seasonal seepage which heads up the Martinez watercourse. This intermittent watercourse flows through a bottom land hardwood slough system in a broad, well-defined ravine. The watercourse flows north and west to join with the Alford Arm Creek north of the study area. This area is believed to be home to the Eastern Tiger Salamander (Means, 1996). The area is hilly with slopes approaching 20%. The good quality slope forest consists of a mix of trees. The most dominant is white oak *(Quercus alba)*, followed by

mockernut hickory *(Carya tomentosa)*, shortleaf pine *(Pinus echinata)*, southern red oak *(Quercus falcata)*, flowering dogwood *(Cornus florida)*, water oak *(Quercus nigra)*, and sweetgum *(Liquidamber styraciflua)*. This transitional slope forest has been designated a mature successional forest (MSF 3). No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS

Station 13:

Station 13 is located 30250 feet east of the trail head, on a hilltop with an elevation of 205', N 30 degrees 31.008' and W 84 degrees 08.148'. The area is dominated by shortleaf pine *(Pinus echinata)* and slash pine *(Pinus elliottii)* with brown sedge grass. At least one southern red oak *(Quercus falcata)* was observed. The area is a planted pine forest which has been recently thinned. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/22/1999; by: HS, RS

Station 14:

Station 14 is located 27800 feet east of the trail head, in the southern corner of the farthest east triangular portion of the greenway on the south side of Miccosukee Rd. The area is gently rolling with slopes ranging from 4% to 7%. Live oak *(Quercus virginiana)* and water oak *(Quercus nigra)* dominate the dense forest. Sweetgum *(Liquidamber styraciflua)* and shortleaf pine *(Pinus echinata)* are scattered throughout. An intermittent water course (WC 2) enters the property from the south ~175 yards west along the property boundary from the corner. The watercourse disappears downslope into a sandy deltic soil. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/29/1999; by: RS, TS

Station 15:

Station 15 is located 28700 feet east of the trail head, 75 yards northwest from the farthest eastern point of the portion of the greenway on the southside of Miccosukee Rd. where the Miccosukee Meadows subdivision is located. An intermittent water course (WC 3) enters the property from the east is this area. The watercourse loses its defined channel downslope due to percolation into a sandy surface soil. Tung-tree *(Aleurites fordii)* is present at this site along with laurel oak *(Quercus laurifolia)*, water oak *(Quercus nigra)*, sweetgum *(Liquidamber styraciflua)* and shortleaf pine *(Pinus echinata)*. Along this property boundary heading southwest/northeast the oaks of the oak-pine associations vacillate between live oak *(Quercus virginiana)* with water oak *(Quercus nigra)* and southern red oak *(Quercus falcata)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/29/1999; by: RS, TS

Station 16:

Station 16 is located 26600 feet east of the trail head, and .4 miles west of the farthest eastern point of the portion of the greenway on the southside of Miccosukee Rd. where the Miccosukee Meadows subdivision is located and ~130 yards south of Miccosukee Rd. It is the site of a former homestead. The forest right around the old house site is dominated by tung-tree *(Aleurites fordii)* and flowering dogwood *(Cornus florida)*. Volunteers include water oak *(Quercus nigra)* and laurel oak *(Quercus laurifolia)*. Slopes range from 3% to 6%. Immediately north of the homesite is an

unusual stand of sweetgum *(Liquidamber styraciflua)*. Beyond that and wrapping around the site on the northeast and northwest is a stand of slash pine *(Pinus elliottii)*. No threatened or endangered plant or animal species were observed at or in the vicinity of this station. Date: 12/29/1999; by: RS, TS.

Threatened and Endangered Species Assessment

A Threatened and Endangered (T&E) Species Assessment for this project was completed in four parts: field observations were made at each of the 18 sampling locations; a literature review was conducted to determine habitat suitability; an FNAI data base consultation and records check was conducted; and an independent field review was conducted by a subcontracted consulting biologist. The following results were obtained.

No threatened or endangered plant or animal species were observed at or in the vicinity of any of the 18 sampling stations, nor during any of the field reconnaissance conducted in conjunction with feature verification and interpretation.

The literature review and consultations with FNAI (Greene, 1999) concluded that extensive areas of suitable habitat for potential T&E presence exist throughout the project study area. However, no threatened or endangered plant or animal species were observed or reported within the project area during this review. The full text of the Greene T&E Assessment is contained in Appendix D.

Cultural Resources Assessment

A Cultural Resources Assessment file check was completed by the Florida Division of Historical Resources. It is their conclusion that while no specific sites are known within the study area that the possibility of encountering a prehistoric archaeological site is sufficiently high to justify a professional archaeological and historical survey prior to any ground disturbing activities. A copy of this report is contained in Appendix E.

Recommendations for Part Two Environmental Impact Assessment

Given that this project is a greenway presenting minimal potential adverse impacts to the study area, the following recommended actions are offered for inclusion in the Part Two, Environmental Impact Assessment of the project.

1. All identified NFI features should be protected by conservation easements as required by the EMA. This should present no inhibitions to the development of trails and facilities throughout the greenway. Parking areas, road crossings and other more intense greenway facilities may be sited to avoid or minimize any potential adverse impacts.

2. The suggested T&E Species follow up survey and the systematic professional archaeological and historical survey recommended should be conducted only where there is to be actual development impact on the ground. Other interpretive and evaluative work should be conducted when practical to facilitate educational and informational aspects of the trail.

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Swanson et al. (1988). Environmentally Sensitive Areas of Leon County, Florida. Tallahassee: Leon County Department of Public Works.

Swanson, Helge R. and D. Bruce Means (1996). "Miccosukee Road Greenway: An Environmentally Sensitive Areas Analysis". A report prepared for the Tallahassee Office of the Trust for Public Lands.

USGS (1982) Topographic Quadrangle Sheets, Ten-foot Contours, 1"=2000'. Bradfordville and Lafayette Sheets.

Table 1
Miccosukee Greenway Study Area Natural Features

Feature	Acreage	Feature	Acreage
KD 1	0.238	SG 1	0.308
KD 2	0.63	SG 2	0.812
KD 3	1.75	SG 3	0.322
KD 4	11.368	SG 4	0.126
KD 5	0.532	SG 5	0.196
KD 6	0.392	SG 6	1.764
KD 7	7.252	SG: Total	3.528
KD 8	0.672		
KD 9	0.91	F P	10.948
KD 10	0.099		
KD 11	1.106	WC 1	750 ft
KD 12	0.042	WC 2	551 ft
KD 13	0.056	WC 3	119 ft
KD 14	0.462	WC 4	824 ft
KD 15	1.05	WC: Total	1564 ft
KD 16	0.28	MSF 1	46.8
KD 17	0.364	MSF 2	64.3
KD 18	0.1	MSF 3	5.7
KD 19	0.05	MSF: Total	116.8
KD 20	0.05	WL 1	0.042
KD: Total	27.403	WL 2	0.658
		WL 3	1.526
		WL: Total	2.226

KD = Karst Depression
WL = Wetland
SG = Significant Grade
FP = Floodplain
WC = Watercourse
MSF = Mature Successional Forest
All areas are in Acres except the watercouse lengths which are measured in feet.

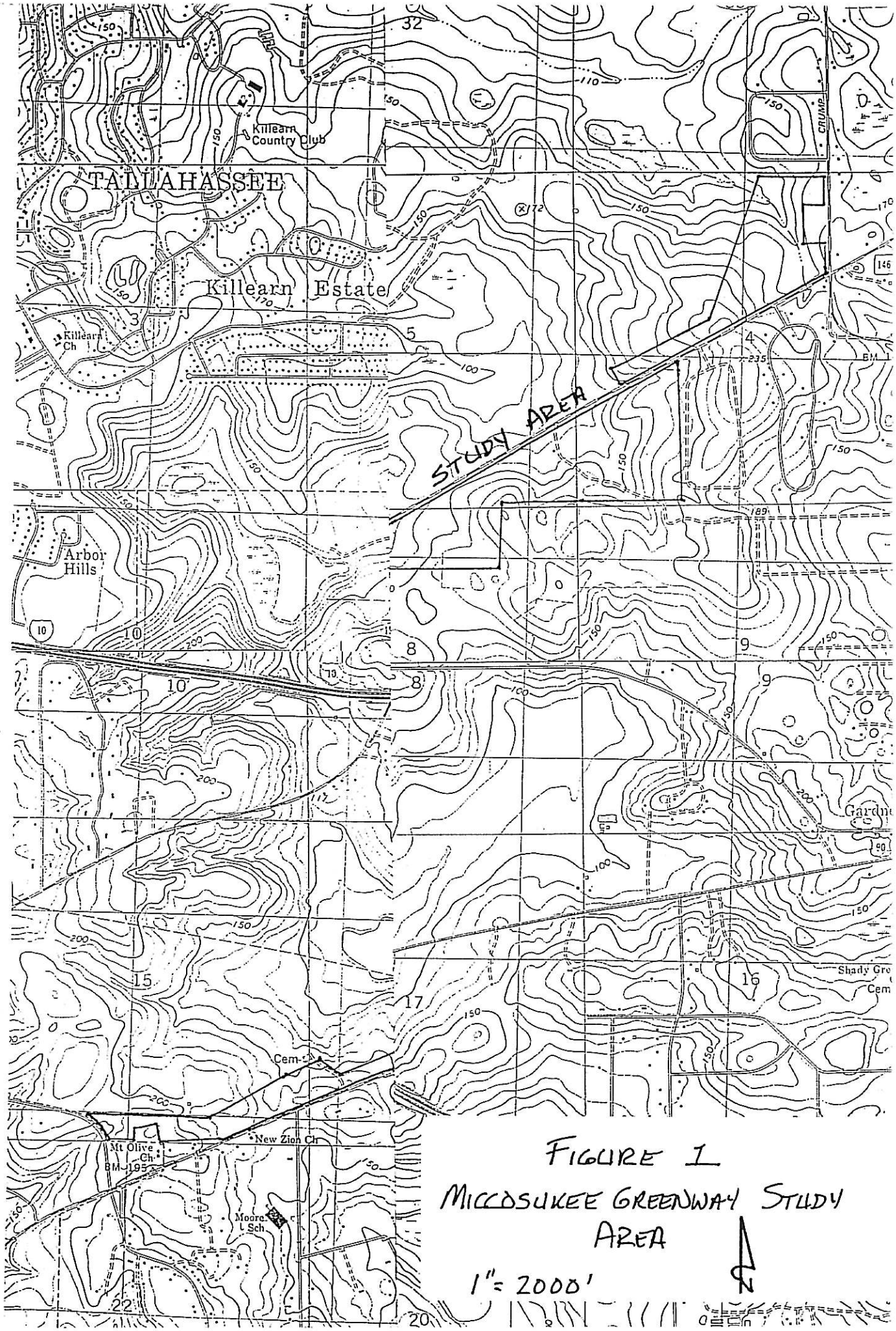


FIGURE 1

MICCOSUKEE GREENWAY STUDY AREA

1" = 2000'

Tom Greene
Environmental Consultant
9096 Warbler Street
Tallahassee, FL 32310
(850) 421-1210

December 18 , 1999

Environmental Reviewer
Florida Natural Areas Inventory
1018 Thomasville Road, Suite 200-C
Tallahassee, FL. 32303

RE: Standard Data Report

Dear Sir or Madam:

This letter is to request a Standard Data Report, a search of your database for occurrences of Federal and State listed species located on or near a site. This request is pursuant to permitting requirements regarding the possible presence of listed species on a proposed development site. The site is being proposed for development as a a passive park, with trails and some parking areas.

The site consists of a parcel located in Leon County, Florida, T1N, R1E, Sections12, 13, 14, 15; and T1N, R2E, Sections 4, 5, 7, 8. The site lies east of Tallahassee, consisting of a corridor averaging about 700 feet wide along Miccosukee Road between Fleischmann and Crump Roads. The site is located on the Bradfordville and Lafayette USGS quadrangles. See attached map. A one mile search radius is desired.

Invoice and written response to this request should be directed to me at the above address.

Please call me if further information is needed. Thanks for your assistance.

Sincerely,

Tom Greene

Tom Greene

Attachment: Location map

/tg

Office of the Secretary
Office of International Relations
Division of Elections
Division of Corporations
Division of Cultural Affairs
Division of Historical Resources
Division of Library and Information Services
Division of Licensing
Division of Administrative Services

State Board of Education
Trustees of the Internal Improvement Trust Fund
Administration Commission
Florida Land and Water Adjudicatory Commission
Siting Board
Division of Bond Finance
Department of Revenue
Department of Law Enforcement
Department of Highway Safety and Motor Vehicles
Department of Veterans' Affairs

FLORIDA DEPARTMENT OF STATE
Katherine Harris
Secretary of State

DIVISION OF HISTORICAL RESOURCES

APPENDIX E

December 20, 1999

Mr. Russell Swanson
Helge Swanson & Associates, Inc.
1230 N. Adams Street
Tallahassee, Florida 32303

RE: DHR Project File No. 998952
Cultural Resource Assessment Request
Miccosukee Greenway Western and Eastern Portions
Leon County, Florida

Dear Mr. Swanson:

In accordance with the procedures contained in the applicable local ordinance, we have reviewed the above referenced project for possible impact to historic properties listed, or eligible for listing, in the National Register of Historic Places, or otherwise of historical or architectural value.

Based upon comparison with environmentally similar areas of Leon County, it is our opinion that the possibility of encountering a prehistoric archaeological site at the project location is sufficiently high to justify a professional archaeological and historical survey prior to any ground disturbing activities. In addition, the project area has never been subjected to a systematic, professional survey to locate archaeological and historic resources.

Since potentially significant archaeological and historic sites may be present, it is our recommendation that, prior to initiating any project related land clearing or ground disturbing activities within the project area, it should be subjected to a systematic, professional archaeological and historical survey.

Because this letter and its contents are a matter of public record, the applicant may be contacted by consultants who have knowledge of our recommendations. This should in no way be interpreted as an endorsement by this agency. Upon request, our office or the City of Tallahassee Growth Management Office can supply a listing of qualified archaeologists living and working in the Tallahassee/Leon County area.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservation Planner, at 850-487-2333 or 800-847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Laura R. Kammerer

for Janet Snyder Matthews, Ph.D., Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Ese

xc: Susan Tanski, City of Tallahassee Growth Management Department
xc: Sine A. Murray, Leon County Department of Public Works

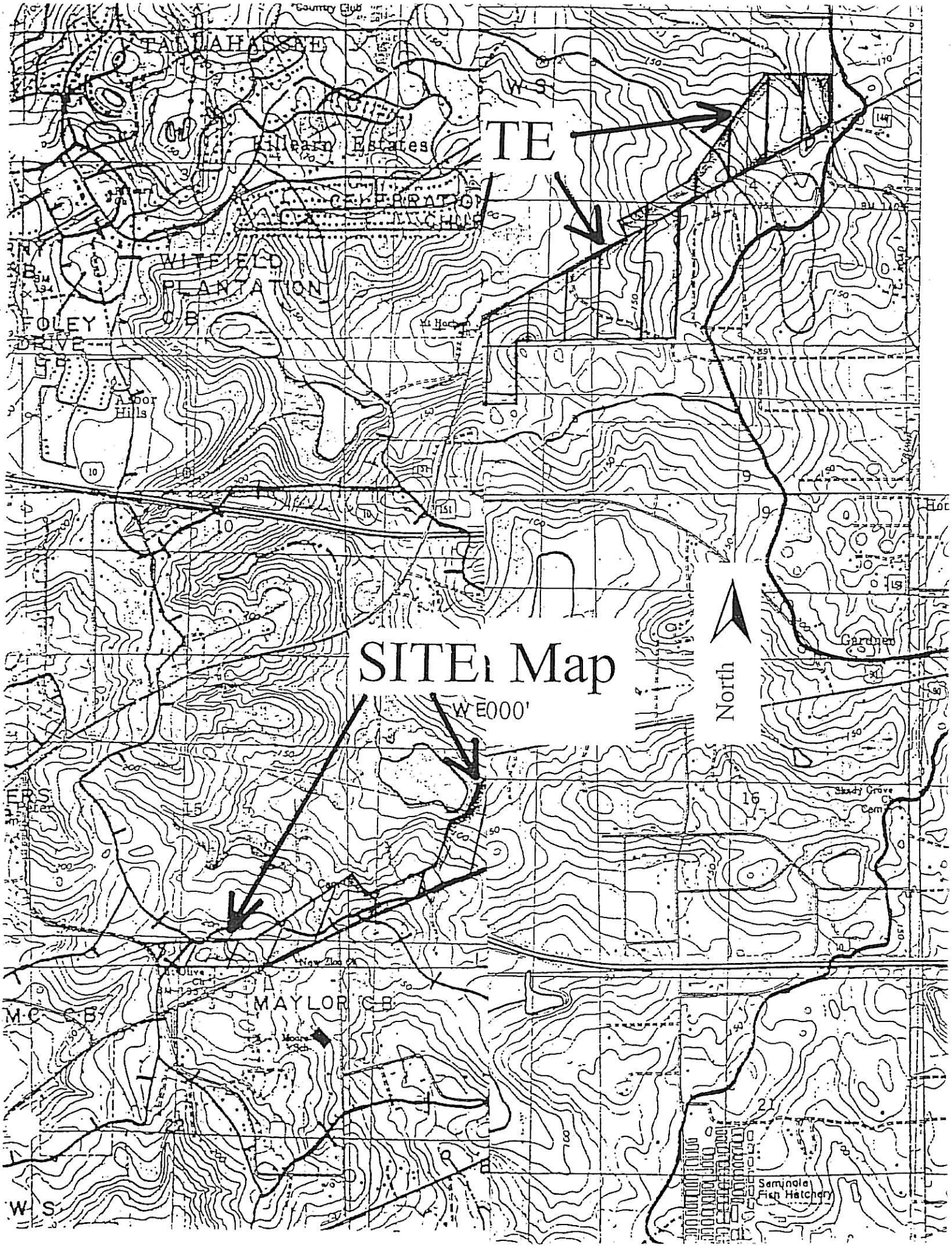
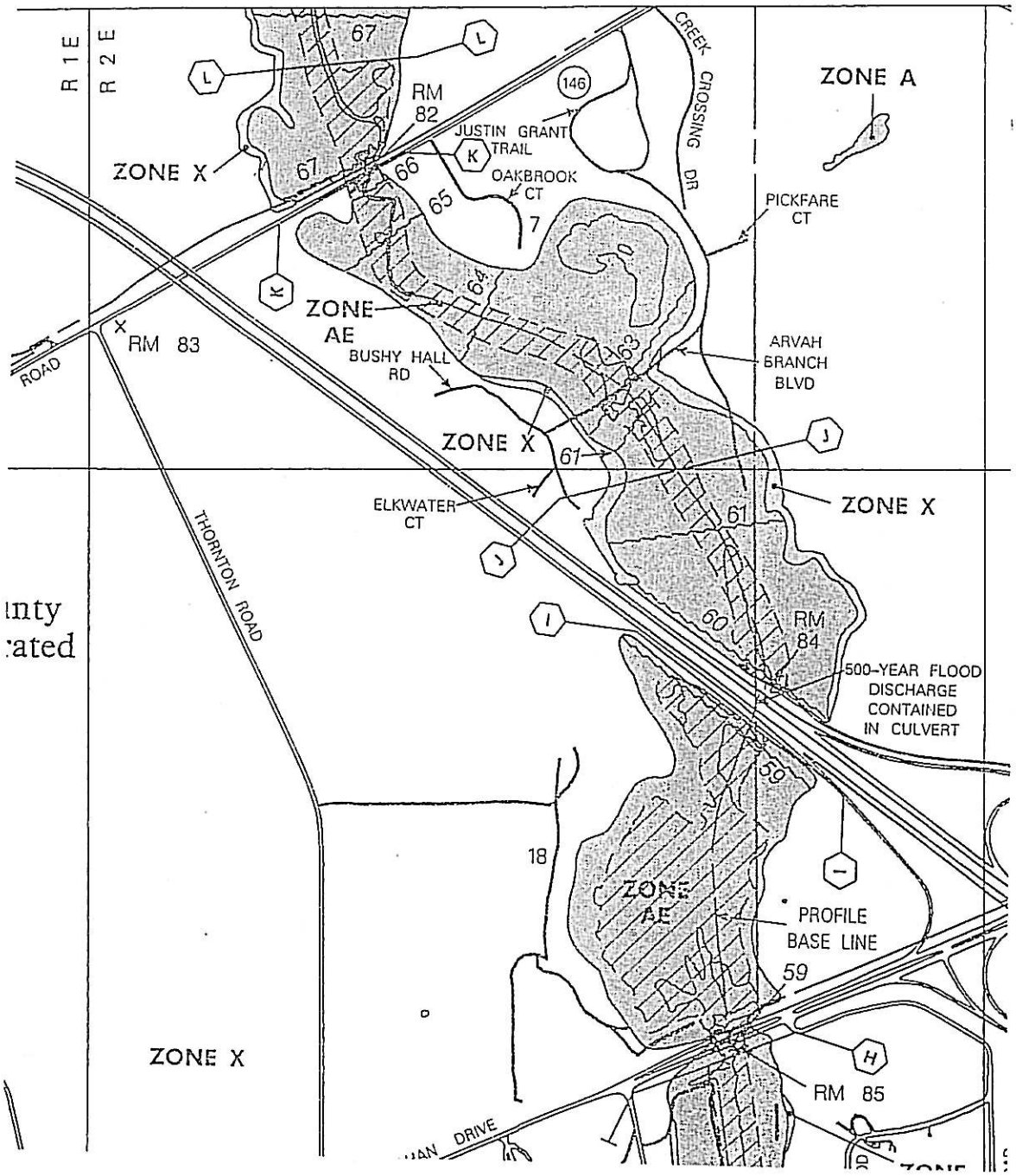

SITE Map
North
TALLAHASSEE
Killearn Estates
WITFIELD
PLANTATION
FOLEY
DRIVE
Arbor
Hills
Gardner
Shady Grove
Cem
New Zion Ch
MAYLOR C.B.
Seminole
Fish Hatchery

Figure 2
Flood Insurance Rate Map
Panel No. 310
(FEMA 97)



Appendix A

Leon County Natural Features Inventory
--Feature Definitions--

The following Natural Features (NFI) are specified in the Environmental Management Act (EMA) for consideration in a Leon County, Florida NFI. Definitions have been taken from the the EMA whenever they are given. Referenced ecological definitions and criteria have been added to augment code definitions or for use where no code definitions are given.

1. Native Forest: a vegetative community:
(1) dominated by native species, including trees, understory vegetation and wildlife;
(2) structured as a forest type described in the Florida Natural Areas Inventory publication, "Guide to Natural Communities of Florida." (EMA, 10-1)
(3) any one of the several natural community associations described in Myers and Ewel (1990).

Natural community associations occurring in north Florida as described in Myers and Ewel (1990) include: Chapter 5, "Pine Flatwoods and Dry Prairies" (Abrahamson and Hartnett), Chapter 6, "Scrub and High Pine" (Myers), and Chapter 7, "Temperate Hardwood Forests" (Platt and Schwartz). Florida wetland types, including natural vegetative associations are described in Myers and Ewel (1990) in Chapter 9, "Swamps" (K. C. Ewel), Chapter 10, "Freshwater Marshes (Kushlan), Chapter 11, "Lakes" (Brenner, Binford and Deevey), Chapter 12, "Rivers and Springs" (Nordlie).

2. Mature Successional Forest: a naturally reforested area within which a variety of native species are recognizably present in such age, numbers, size and diversity as to provide a mature forest canopy, associated with understory and wildlife habitat. (EMA).

Forest successional processes and resulting associations are described as a part of the natural community associations occurring in north Florida as described in Myers and Ewel (1990) include: Chapter 5, "Pine Flatwoods and Dry Prairies" (Abrahamson and Hartnett), Chapter 6, "Scrub and High Pine" (Myers), and Chapter 7, "Temperate Hardwood Forests" (Platt and Schwartz). Florida wetland types, including natural vegetative associations are described in Myers and Ewel (1990) in Chapter 9, "Swamps" (K. C. Ewel), Chapter 10, "Freshwater Marshes (Kushlan), Chapter 11, "Lakes" (Brenner, Binford and Deevey), Chapter 12, "Rivers and Springs" (Nordlie).

3. High Quality Successional Forest: an early stage in natural community development characterized by an ability to provide wildlife habitat and within which natural community type species are present in such numbers, size, and diversity that succession is toward a recognizable mature natural community. (EMA)

Forest successional processes and resulting associations are described as a part of the natural community associations occurring in north Florida as described in Myers and Ewel (1990) include: Chapter 5, "Pine Flatwoods and Dry Prairies" (Abrahamson and Hartnett), Chapter 6, "Scrub and High Pine" (Myers), and Chapter 7, "Temperate Hardwood Forests" (Platt and Schwartz). Florida wetland types, including natural vegetative associations are described in Myers and Ewel (1990) in Chapter 9, "Swamps" (K. C. Ewel), Chapter 10, "Freshwater Marshes (Kushlan), Chapter 11, "Lakes" (Brenner, Binford and Deevey), Chapter 12, "Rivers and Springs" (Nordlie).

Additional criteria related to "high quality" are contained in the EMA Section 10-187 pertaining to wetlands. Here the term "degraded" is used to refer to features where "ecological functions have been significantly and detrimentally altered". Further, the subjective determination of "significantly degraded" is to be made based on the features "current level of beneficial functioning and the likelihood that functioning may become reestablished through natural processes as opposed to man made mitigations".

4. **Waterbody:** any natural or artificial pond, lake, reservoir, or other area which normally contains surface water. (EMA)

See also "Wetland".

5. **Watercourse:** any natural or artificial stream, river, creek, channel, ditch, canal, conduit, culvert, drain, waterway, gully, ravine, street, roadway, swale, or wash, in which water flows in a definite direction, either continuously or intermittently, and which has a definite channel or bed, or definite banks. (EMA)

See also "Wetland".

6. **Wetland:** an area included within the landward extent of surface waters of the state, pursuant to applicable rules in the Florida Administrative Code, or any area which is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and which under normal circumstances supports, a prevalence of vegetative or aquatic life typically adapted for life in periodically saturated soil conditions, known as hydric soils, or saturated or periodically saturated non soil substrates. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, wet meadows, river overflows, mud flats, sand flats, beaches, seepage slopes, and temporary natural ponds. (EMA, 10-1).

Florida wetland types are described in Myers and Ewel (1990) in Chapter 9, "Swamps" (K. C. Ewel), Chapter 10, "Freshwater Marshes (Kushlan), Chapter 11, "Lakes" (Brenner, Binford and Deevey), Chapter 12, "Rivers and Springs" (Nordlie).

Florida wetland plants are described in Tobe et. al. (1998). This text is used as the standard for FDEP as well as local and federal wetland plant delineations.

Hydric soils and other wetland indicators are given in U.S. Army (1987) and are commonly used in wetland delineations for local, state and federal permitting. Additional soils classifications and descriptions are given in SCS (1981).

7. Floodway: the channel of a river, steam, or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood, without cumulatively increasing the water surface elevation of the floodway. (EMA)

8. Floodplain: or flood prone area, any area susceptible to being inundated by water from any source. Floodplains are normally designated in terms of their probability of flooding within a specified period such as one, ten, 25, 50 and 100 years. (EMA)

9. Significant Grade: any grade with a slope between 10% and 20%. (EMA)

10. Severe Grade: any grade with a slope greater than 20%. (EMA)

11. Karst Feature: a type of topography that is formed over limestone, dolomite, or gypsum by dissolving or solution and that is characterized by closed depressions or sinkholes, caves, and underground drainage. (EMA)

Karst topography is described in Myers and Ewel (1990) in Chapter 3, "Soils" (Brown, Stone and Carlisle). A working definition is also given in Allaby (1994): any region that is underlain by limestone where resulting topographic sinks and depressions result largely from the action of carbonation or of other processes produces similar types of land-forms. Karst features are generally classified as either subsidence or collapsed types. The term "active karst" is commonly used to refer to an exposed groundwater table in conjunction with near vertical sides and exposed limestone.

12. Listed Species: any plant or animal listed by the county, state or federal governments as an endangered or threatened species, or a species of special concern. (EMA)

13. Canopy Road Protection Zone: all lands within the unincorporated county within 100 feet of the centerlines of the following roads declared to be canopy road tree protection zones:

(1) Meridian Road from its intersection with Seventh Avenue to the State line.

(2) Magnolia Drive-Centerville Road-Moccasin Gap Road from their intersection with Seventh Avenue to State Road 59.

(3) Miccosukee Road from its intersection with Capital Circle to Moccasin Gap Road.

(4) Old St. Augustine Road from its intersection with East Lafayette Street to W. W. Kelly Road.

(5) Old Bainbridge Toad from its intersection with Raa Avenue to Capital Circle. (EMA)

14. Special Development Zone: All lands within the watershed of the following lakes and basins:

(1) Lake Jackson
(2) Bradford Brook Chain-of-Lakes
(3) Fred George Basin; and
(4) Lake Iamonia. (EMA)

15. Archeological Site: a location that that has yielded or may yield information on history or prehistory or is included in the state master site file. (EMA)

16. Closed Basin (Regulated closed basin): a naturally depressed portion of the earth's surface, at least ten acres in size, for which there is no natural outlet for runoff other than percolation, evaporation, or transpiration. (EMA, 10-1).

Additional definitions are contained in Section 10-188 where it is stated: Regulated closed basins may have been mapped by the BCC, or they are any closed basin for which it can be shown by hydrologic analysis that cumulative increases in runoff volume from potential development patterns will cause a significant adverse impact on the frequency, duration or extent of flooding.

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Appendix B

Ecology of Dove Lake and Dove Pond

Dove Lake is one of a number of karst related features and closed basins along a line extending from northwest to southeast to Lake Lafayette. It is the receiving waterbody within the 1200 acre Welaunee Closed Basin. Immediately southeast but not normally connected by surface water flow is the 590 acre Lafayette Oaks Closed Basin. Dove Lake is one of several interconnected solution depressions typical of the Tallahassee Red Hills (Means, 1996). This small lake is forming by downward and lateral dissolution of underlying limestones, in a manner very similar to how lakes Jackson, Iamonia, and Lafayette has developed. The scenario for the formation of such solution depression lakes is as follows: 1) After the clays and sands of the Miocene age Miccosukee and Hawthorne formations were deposited--probably as an ancient delta complex--gully erosion created a small stream valley that heads up west of Dove Lake and wends its way southeastward to present-day Lake Lafayette. 2) Eventually, at different places along its course, the stream bed cut down through the overlying Miocene clastics into the underlying older limestones; this probably happened at Dove Lake and not above and below the pond because the limestone was domed up under what is now Dove Lake, or ground water percolating through the clays and sands first worked its way into the limestone under Dove Lake and dissolved out cavities that have collapsed under Dove Lake and not upstream or downstream. 3) The downward and lateral dissolution under Dove Lake has proceeded far enough that the volume of water running off the small catchment above Dove Lake rarely now overwhelms the capacity of the basin to hold it; Dove Lake has sunk low enough and is broad enough to receive all the runoff into it during most years. This is the situation that exists in the larger Lake Jackson today. Interestingly, and in contrast, Lake Iamonia still is attached by a small slough to the master stream near it, the Ocklockonee River.

There is no evidence of rooted or emergent vegetation in the marginal shallows of Dove Lake, which could be the result of several factors. If this is a natural phenomenon, it might be explained by the fact that Dove Lake is relatively shallow with a very gradual slope along its margins. This would facilitate rapid movement of water over the pond margins during high water periods and just as rapid and extensive retreat of water during drought. Neither can upland vegetation get established there because of its vulnerability to drowning during high water nor can aquatic vegetation become established during low water. There are also possible anthropogenic causes for this phenomenon.

In conclusion, there are no special qualities in Dove Lake that would set it apart from the other solution depression lakes in northern Leon County. It appears to have fish, probably stocked for fishing purposes, or fish could have very easily have made their way upstream during bouts of heavy stormwater runoff. Fish are anathema to the temporary pond-inhabiting rare animals of the local area. It is expected that several centrarchids, pickerel, minnows, the bullfrog, the pig frog, leopard frog and other common species inhabit the lake. A banded water snake was observed, which feeds

almost exclusively on frogs and fish.

Upland watershed drainage to Dove Lake is largely sheet flow from adjacent uplands. Several large ravines have the topographic appearance of being contributing watercourses however, based on field assessments, the watercourses dissipate into flat, sandy recharge areas prior to reaching the lake. Seepage may also be a major contributor to the lake. It is unclear whether Dove Lake is perched or connected to the Floridan aquifer; the former condition would be more likely given area surface elevations although the abundance of karst characteristics in the area suggest normal surface water-ground water interactions via limestone.

From a management perspective, consideration should be given to establishing a cypress community at the littoral line of the lake. Changes in the upland watershed areas should be monitored closely given the probable high degree of sensitivity of this lake to changes in its current sheet-flow surface water conditions either from the standpoint of volume increases due to upland land use intensification or from increased nutrient loading from new erosion sources such as construction activity.

Appendix C

Oak-Pine-Hickory Forest Associations

According to Platt and Schwartz (in Myers and Ewel, 1990) the presettlement high hammock zone between up slope clayhills and midslope hammocks likely contained a mixture of species from both habitats. The degree of intermixing depends on slope and frequency of fire. Oaks and hickories are characteristic of this zone. Some of these hardwoods, as well as shortleaf pine, may have occurred almost entirely within the transition zone. High hammock zones were noted by travelers in the Tallahassee Red Hills region as early as the 1800s. High hammocks contained pines, oaks and hickories, was well as a dense growth of coppicing hardwoods along interfaces with pinelands.

Oak-pine-hickory forests were common to the Tallahassee Red Hills region. For example, Clewell (1986 reported in Platt and Schwartz) reported that more than 50 percent of the early 1980s survey lines were dominated by hardwoods, primarily oaks and hickories. He attributed the abundance of these species to an abundance of high hammocks in this region of the state before settlement and to residual effects of extensive Apalachee Indian agriculture before and during the period of Spanish exploration and settlement.

The referenced oak-pine-hickory forest was examined for classification as a native forest by Means and Swanson (1996). Based on observed field conditions including canopy and ground cover plant associations, the forest was determined to be of a successional type. However, it should be noted that oak-pine-hickory successional forests are now rare and the opportunity to acquire and manage such a resource is very important.

For the most part there were two size classes of woody vegetation, the remnants of an oldfield succession following agriculture that ceased on the site just before the larger trees got established, probably 40 to 60 years ago. Few native understory plants were observed. A dense cluster of small hickory and oaks, among others, along with vines and other invasives dominate the understory and suggest a more recent abandonment of pasturing on this site.

The association of mockernut hickory (*carya tomentosa*), post oak (*Quercus stellata*), southern red oak (*Q. falcata*), black oak (*Q. velutina*) and shortleaf pine (*pinus echinata*) may be remnants of what Platt and Schwartz (1990) referred to as "high hammock", a transitional forest of a distinct tree species composition that was located on the landscape between longleaf pine forest and temperate hardwood forest sites.

APPENDIX D

Tom Greene
Environmental Consultant
9096 Warbler Street
Tallahassee, FL 32310
(850) 421-1210

December 20, 1999

Mr. Helge Swanson
Helge Swanson & Associates, Inc.
1230 N. Adams St.
Tallahassee, FL. 32303

RE: Threatened and Endangered Species Assessment for the Miccosukee Greenway

Dear Helge:

I have completed a Threatened and Endangered Species Assessment for this site, located along Miccosukee Road between Fleischmann and Crump Roads (see attached location map). The total project area is approximately 500 acres. The proposed land use is a passive park, with trails and some parking areas. An existing parking and picnic area is located near Dove Pond. At this time, information regarding locations of proposed improvements, including trails and additional parking areas, was not yet available. The site is located in the Tallahassee Red Hills, within the Lake Lafayette drainage basin.

The site was assessed for the probability of occurrence of species listed by federal or state agencies as endangered, threatened or of special concern. Literature sources and Florida Natural Areas Inventory staff were consulted for information on species occurrence by geographic location and by habitat. Habitat types and conditions were identified on-site, and the probability of occurrence of listed species was assessed based on the habitats observed. The results of this assessment are not based on field surveys for the listed species, except at Dove Pond.

A. Description of Habitats Observed On-site

1) Shortleaf pine-Southern red oak-Laurel oak-Live oak forest (not recently burned). This habitat extends for most or all of the length of the project, in some places consisting only of the live oak canopy forest bordering the road. It occupies essentially all of the Greenway corridor from Fleischmann Road to the western edge of the Dove Pond pasture, from the eastern edge of the Dove Pond pasture to the Testerina Primitive Baptist Church, and from the eastern edge of I-10 to Miles Johnson Road; and occupies the majority of the forested portion of the corridor south of Miccosukee Road and east of Miles Johnson Road.

This is a partially closed forest that occurs on the majority of the uplands of the site, consisting of various mixtures of young adult to mature shortleaf pine, southern red oak, laurel oak and live oak in the canopy; and with these oaks plus sweet gum, water oak, and sometimes southern

magnolia in the sub-canopy. The understory is generally fairly dense and moderately well-shaded, with a thick layer of leaf litter. In some areas, the canopy consists of a pure stand of laurel oak or live oak. The planted canopy of mature live oaks along Miccosukee Road can be included in this habitat type.

2) Shortleaf pine forest (fire-maintained). This habitat occupies almost all of the eastern end of the corridor located north of Miccosukee Road, extending from west of Argyle Road to Crump Road.

An open forest of scattered, young adult shortleaf pine, with a fire-maintained groundcover of grasses and forbs, but with few oaks. A portion of this area near Crump Road may be under consideration as an additional parking site.

3) Oak-Pine-Hickory forest. This habitat occurs in the eastern portion of the corridor located south of Miccosukee Road, and is surrounded in part by other mixed forest habitats; thus accurate delineation of its extent through aerial photography may be problematic.

Described in Clewell (1986), this area is a mature forest of southern red oak, mockernut hickory and shortleaf pine, with dogwood, chinquapin and other species in the understory. This forest has been maintained by periodic burning in the past.

4) Improved pasture. This habitat occurs at Dove Pond, from Testerina Primitive Baptist Church to I-10, and possibly some areas in the corridor between I-10 and the Oak-Pine-Hickory forest.

This habitat generally consists of short-statured or clipped, planted grass of one or few species, some areas with scattered mature pines and oaks. A forested strip may border this habitat along fences and roads.

5) Old field. This habitat occurs in several areas in the portion of the corridor located south of Miccosukee Road, between Miles Johnson Road and the Oak-Pine-Hickory forest.

Old field habitat is composed of vegetation arising after an agricultural field or pasture is abandoned. This vegetation consists of grasses and forbs often attaining 3-5 feet in height. Such habitats on the site are usually bordered by a forested strip along fences and roads. Some areas may have been recently bush-hogged.

6) Pine plantation. One small area of this habitat was noted, east of the Oak-Pine-Hickory forest.

This habitat occurs on the site as a dense plantation of young pines, with little other vegetation, and a dense litter layer of pine needles.

7) Dove Pond/ Dove Lake. Dove Lake, located about 1 mile east of Fleischmann Road, is on adjacent private property (Welaunee Plantation). Dove Pond, located within the corridor immediately adjacent to Dove Lake, is now dry and has been completely bush-hogged. The uplands surrounding Dove Pond are highly improved pasture.

8) Stream east of I-10. This is a ditched watercourse located about 0.2 mile east of I-10, running through a narrow strip of bottomland hardwood forest of apparently low habitat quality. It is a tributary to Alford Arm Creek.

9) Drain near Crump Road. A forested low area on the north side of Miccosukee Road, located about 0.1 mile west of Crump Road, receives water in part from a stormwater pond located immediately south of Miccosukee Road, and then discharges to a narrow drain exiting the site to the north. The vegetation of this area is of generally low to medium habitat quality.

B. Probability of Occurrence of Listed Species

Flyr's brickell-bush (State Endangered) is considered very likely to occur in the shortleaf pine-southern red oak-laurel oak-live oak forest and the oak-pine-hickory forest, and may possibly occur in the fire-maintained shortleaf pine habitat. Poppy mallow (State Endangered) and Florida mountain-mint (State Threatened) may also occur in these habitats.

The southeastern American kestrel (State Threatened) and Sherman's fox squirrel (State Species of Special Concern) are likely to occur on-site in the fire-maintained shortleaf pine habitat, and could also occur in the improved pasture areas. If mature pines occur in the fire-maintained shortleaf pine habitat, the red-cockaded woodpecker (Federally Endangered, State Threatened) could possibly be present there.

The gopher tortoise (State Species of Special Concern)and its associates the eastern indigo snake (Federally and State Threatened), the Florida pine snake (State Species of Special Concern) and the gopher frog (State Species of Special Concern), if they occur on-site, would most likely be found in the fire-maintained shortleaf pine habitat. The gopher tortoise and its associates could possibly also occur in other upland habitats including improved pasture, oak-pine-hickory forest, and old field. However, the gopher frog would also require suitable temporary pond habitat in the general vicinity.

Dove Pond is a shallow waterbody that may connect to Dove Lake at high water, yet can drawdown and go dry during droughts, as now. Thus it is a likely foraging area for wading birds, including the woodstork (Federally and State Endangered), white ibis (State Species of Special Concern), little blue heron (State Species of Special Concern), and snowy egret (State Species of Special Concern). The tricolored heron (State Species of Special Concern) and limpkin (State Species of Special Concern) may possibly forage in Dove Pond as well. No nests were seen in

the trees and forest surrounding or adjacent to either waterbody, that was visible from the Miccosukee Greenway property.

Alligators (Federally Threatened due to Similarity of Appearance, State Threatened) are likely to occur in Dove Lake, and thus may be present in adjacent Dove Pond when it has water. Narrowleaf naiad (State Threatened) may possibly occur in Dove Pond.

Variable-leaved Indian-plantain (State Threatened) may occur along the stream east of I-10 and possibly in the low area at the head of the drain near Crump Road. Turk's cap lily (State Endangered) and Alabama rhododendron (State Endangered) may possibly occur in both of these habitats. American chaffseed (Federally and State Endangered) may occur along the drain near Crump Road. Indian cucumber-root (State Endangered) may possibly occur along the stream east of I-10.

The tiger salamander, though not listed by government agencies, is tracked by the Florida Natural Areas Inventory as a species of concern. The stormwater pond that drains into the low area and drain habitat on-site near Crump Road was formerly known to be a breeding pond for tiger salamanders. Tiger salamanders thus may occur in the low area on-site.

Table 1 - Summary of Listed Species That May Potentially Occur On-site

Species	Federal Status	State Status	Probability of Occurrence
Reptiles and Amphibians			
American alligator *(Alligator mississippiensis)*	Threatened (Similarity of Appearance)	Special Concern	Moderate
Eastern indigo snake (*Drymarchon corais couperi*)	Threatened	Threatened	Moderate
Gopher tortoise (*Gopherus polyphemus*)	none	Special Concern	Moderate
Florida pine snake *(Pituophis melanoleucus mugitus)*	none	Special Concern	Moderate
Tiger salamander (*Ambystoma tigrinum*)	none	none	Moderate
Gopher frog (*Rana capito*)	none	Special Concern	Possible
Birds and Mammals			
Limpkin (*Aramus guarauna*)	none	Special Concern	Possible (foraging)
Little blue heron (*Egretta caerulea*)	none	Special Concern	Likely (foraging)
Snowy egret (*Egretta thula*)	none	Special Concern	Likely (foraging)
Tricolored heron (*Egretta tricolor*)	none	Special Concern	Possible (foraging)
White ibis (*Eudocimus albus*)	none	Special Concern	Likely (foraging)
Southeastern American kestrel (*Falco sparverius paulus*)	none	Threatened	Likely
Wood stork (*Mycteria americana*)	Endangered	Endangered	Likely (foraging)

Red-cockaded woodpecker (*Picoides borealis*)	Endangered	Threatened	Possible
Sherman's fox squirrel (*Sciurus niger shermani*)	none	Special Concern	Likely
Plants			
Variable-leaved Indian-plantain (*Arnoglossum diversifolium*)	none	Threatened	Moderate
Flyr's brickell-bush (*Brickellia cordifolia*)	none	Endangered	High
Poppy mallow (*Callirhoe papaver*)	none	Endangered	Moderate
Turk's cap lily (*Lillium superbum*)	none	Endangered	Possible
Indian cucumber-root (*Medeola virginiana*)	none	Endangered	Possible
Narrowleaf naiad (*Najas filifolia*)	none	Threatened	Possible
Florida mountain-mint (*Pycnanthemum floridanum*)	none	Threatened	Moderate
Alabama rhododendron (*Rhododendron alabamense*)	none	Endangered	Possible
American chaffseed (*Schwalbea americana*)	Endangered	Endangered	Moderate

C. Recommendations

Once the locations of proposed trails, parking areas and other facilities are known, field surveys for the listed species expected to occur on-site should be conducted in those areas. Alternatively, surveys could be conducted for the entire project site. Field surveys for the majority of the species expected to occur on-site would be most likely to be successful between May and September.

A database search request for this site has been sent to the Florida Natural Areas Inventory (see attached). If you have any questions, please call me at (850) 421-1210.

D. Reference Cited

Clewell, A.F. 1986. Natural Setting and Vegetation of the Florida Panhandle. COESAM/PDEI-86/001, Contract No. DACW 01-77-C-0104. U.S. Army Corps of Engineers, Mobile, AL., pp. 695-7.

Sincerely,

Tom Greene

Tom Greene

Attachments: FNAI Database Search Request
Location Map

/tg

Appendix E

Florida Greenways and Trails System design guidelines for unpaved and paddling trails

Developed by the
Florida Recreational Trails Council
May 1998

Introduction

In 1987, the Florida Legislature established the Florida Recreational Trails System under Chapter 260, Florida Statutes. The intent of the Legislature was that the "recreational trails will serve to encourage horseback riding, hiking, bicycling, canoeing, and jogging and thereby improve the health and welfare of the people." The Department of Natural Resources, Division of Recreation and Parks, was given direction under Chapter 260.016, Florida Statutes, to establish the Florida Recreational Trails Council (Council) which "shall advise the division in the execution of its powers and duties under this chapter." This 26 member body is comprised of representatives from various recreational user groups; private landowners; as well as local, state, and federal government. The Council's primary role would be to provide a forum for discussion of trails issues between the trail users and trail providers. At its first "working" meeting, held in November of 1988, the members agreed after much discussion, that there was a definite need for a formally recognized set of trail development and maintenance standards suitable for Florida's natural environment. The Council immediately set out to create these standards.

The 10 years to follow would not always be easy for this Council. The merging of the Department of Natural Resources and the Department of Environmental Regulation in 1992, created the Department of Environmental Protection as we know it today. In 1994, just as things were settling down from the merger, the responsibility of the Council was transferred to the Office of Greenways and Trails from the Division of Recreation and Parks. Even though the Council had new faces to learn and new rules to follow, they continued with the development of the trail standards as one of their top priorities. After years of research and input from many groups the idea of creating trail standards evolved into this working document, *The Florida Greenways and Trails System - Design Guidelines for Unpaved and Paddling Trails*. This document is meant to serve strictly as a guideline for the design and development of unpaved trails and should be adapted to local environmental and site conditions.

The members of the Florida Recreational Trails Council's sub-committee who dedicated many long hours and weekends to the completion of this document should be commended for their extraordinary efforts. The Council also owes its gratitude to the staff of the Office of Greenways and Trails for all of their patience and support throughout the development of these guidelines. Thanks are also extended to the Department of Environmental Protection, the Division of Recreation and Parks, and the members of the Florida Greenways Coordinating Council. Our greatest thanks go to the citizens of the State of Florida for their tremendous response to our request for ideas and suggestions. This support has fueled the efforts of the Council as they have worked to develop these guidelines.

Greenways & Trails

Unpaved and paddling trail design guidelines
Florida Recreational Trails System

Table of Contents

1. Design Objectives
- 1.1 Primary Goal
- 1.2 Objectives
- 1.2.1 Degree of Difficulty
- 1.2.2 Trail Access/Crossings
- 1.2.3 Accessible Trails
- 1.2.4 Routing
- 1.2.5 Trailheads
- 1.2.6 Rest Stops
- 1.2.7 Signage
- 1.2.8 Bridges
- 1.2.9 Guardrails
- 1.2.10 Visibility
- 1.2.11 Topography
- 1.2.12 Drainage
- 1.2.13 Vertical/Horizontal Clearance
- 1.2.14 Obstructions
- 1.2.15 Organic Materials
- 1.2.16 Trash Receptacles
- 1.2.17 Inspections/Evaluations
- 1.2.18 Maintenance
- 1.2.19 Flood-Prone Areas
- 1.2.20 Wetlands/Environmentally Sensitive Areas
- 1.2.21 Buffers
- 1.2.22 Community Involvement
- 1.2.23 Aesthetics

2. Design Guidelines
- 2.1 Location and Routing
- 2.1.1 Topography and Drainage
- 2.1.2 Diversity of Natural Experiences
- 2.1.3 Environmental Impact
- 2.1.4 Urban/High Volume Trails
- 2.1.5 Rural/Primitive/Low Volume Trails
- 2.1.6 Accessible Trails
- 2.1.7 Trail Linkages
- 2.1.8 Public Land Use
- 2.1.9 Road/Railroad Crossings and Sight Lines
- 2.1.10 Social and Economic Impact
- 2.1.11 Archaeological and Historical Resources
- 2.1.12 Air Quality and Noise
- 2.1.13 Contaminated Sites
- 2.1.14 Prescribed Burns
- 2.1.15 Consultation with Authorities
- 2.2 Self Direction
- 2.2.1 Standardized Trail Marking System
- 2.2.2 Signs/Maps
- 2.2.3 Private Property
- 2.3 Aesthetics
- 2.3.1 Routing
- 2.3.2 Sensory Experience
- 2.4 Cost-Efficiency
- 2.4.1 Materials and Equipment
- 2.4.2 Community Involvement
- 2.4.3 Rehabilitation of Existing Trails
- 2.4.4 Recycled Materials
- 2.4.5 Life Cycle Costs
- 2.4.6 Routing and Location

3. Trail Design And Construction Guidelines
- 3.1 Hiking and Jogging Trails
- 3.1.1 Tread Width
- 3.1.2 Horizontal Clearance
- 3.1.3 Vertical Clearance
- 3.1.4 Grades
- 3.1.5 Drainage
- 3.1.6 Surfaces
- 3.1.7 Length of Hike
- 3.1.8 Trail Marking
- 3.2 Off-Road Bicycling Trails
- 3.2.1 Tread Width
- 3.2.2 Horizontal Clearance
- 3.2.3 Vertical Clearance
- 3.2.4 Grades
- 3.2.5 Drainage
- 3.2.6 Surfaces
- 3.2.7 Length of Ride
- 3.2.8 Trail Marking
- 3.2.9 Design Speed
- 3.2.10 Turning Radius
- 3.3 Equestrian Trails
- 3.3.1 Tread Width
- 3.3.2 Horizontal Clearance
- 3.3.3 Vertical Clearance
- 3.3.4 Grades
- 3.3.5 Drainage
- 3.3.6 Surfaces
- 3.3.7 Length of Ride
- 3.3.8 Trail Marking
- 3.4 Paddling Trails
- 3.4.1 Water Depth
- 3.4.2 Portage
- 3.4.3 Trip Length
- 3.4.4 Trail Marking
- 3.5 Unpaved Multi-Use Trails
- 3.5.1 Trail Corridors
- 3.5.2 Unpaved Multi-Use Trail
- 3.5.2.1 Tread Width
- 3.5.3 Horizontal Clearance
- 3.5.4 Vertical Clearance
- 3.5.5 Grades
- 3.5.6 Drainage
- 3.5.7 Surfaces
- 3.5.8 Trip Length
- 3.5.9 Trail Marking

4. Support Facilities
- 4.1 Trailheads
- 4.1.1 Primary
- 4.1.2 Secondary
- 4.1.3 Remote
- 4.2 Rest Stops
- 4.3 Parking and Staging Areas
- 4.3.1 General Parking
- 4.3.2 Equestrian Trailer Parking
- 4.3.3 Canoe Trailer Parking
- 4.3.4 Bicycle Racks
- 4.4 Camping
- 4.4.1 Primitive Camping
- 4.4.2 Location
- 4.4.3 Space Standard
- 4.4.4 Amenities
- 4.5 Developed/Group Camping
- 4.5.1 Location
- 4.5.2 Space Standard
- 4.5.3 Amenities

5. Trail Crossings
- 5.1 At-Grade Crossings
- 5.2 Above-Grade Road Crossings
- 5.3 Above-Grade Trail Crossings
- 5.4 Water Crossings
- 5.5 Fence, Gate and Barricade Crossings

6. Accessible Facilities

Appendices
- Appendix A - Trail Signs and Markings
- Appendix B - Fence Crossings, Gates and Barricades
- Appendix C - Terms used in the Document
- Appendix D - References (Pending Completion)

1. Design objectives

1.1 Primary goal

The primary goal of this manual is to provide minimum design guidelines for unpaved non-motorized trails for uses such as hiking, jogging, bicycling, horseback riding, paddling, as well as multiple use for trails in Florida. Successful trail development depends upon our ability to recognize existing and future recreational needs in Florida. It is the intent of these design guidelines to assist in the development and improvement of non-motorized trails to suit our state's recreational needs now and in the future.

Design criteria will vary and are intended to be flexible according to the expected volume, type of trail and abilities of the trail users. Besides it's diverse user groups, Florida's varied natural environment will require special support facilities under certain conditions to minimize impact. It is imperative that minimum design guidelines are established to promote consistent, safe, environmentally compatible and enjoyable trail development throughout the state. These minimum design guidelines have been developed with the goal of establishing a balanced interconnecting system of recreational trails throughout the state for use by the public.

1.2 Objectives

1.2.1 Degree of difficulty - Establish the degree of difficulty for each trail and/or portion of the trail as required. The degrees of difficulty are defined as easy, moderate and difficult and should be indicated at the trailhead and included in all trail information.

1.2.2 Trail access/crossings - Provide safe and adequate trail access, while minimizing trail crossings by motor vehicles. Provide grade separated crossings, such as bridges, overpasses, underpasses, or traffic control devices for high volume/speed motor vehicle crossings.

1.2.3 Accessible trails - Trails and facilities shall be developed in accordance with the guidelines set forth by the Americans With Disabilities Act (ADA) published by the Department of Community Affairs. Refer to Universal Access to Outdoor Recreation: A Design Guideline, published by PLAE, Inc. from MIG Communications 1802 5th Street, Berkely, California 94710, for additional resources. Modifications can be made to existing trails without reducing the quality of the experience.

1.2.4 Routing - Select routes where minimum barriers and road crossings occur while considering natural resources and natural topography.

1.2.5 Trailheads - Create trailheads that have safe and clear access points and are adjacent to the trail with well marked trail maps, restrooms and other amenities. Appropriate parking facilities should be provided where possible and/or feasible. Trailheads should be classified as primary, secondary or remote.

1.2.6 Rest stops - Rest stops should be appropriately placed based on the type of trail. Include amenities where possible.

1.2.7 Signage – Provide educational and or interpretive directional, informational, regulatory, warning, site sensitive festival signage.

1.2.8 Bridges - Provide bridges, walkways and other crossing facilities where necessary with appropriate safety measures or provide for safe passage.

1.2.9 Guardrails - Use guardrails on dangerously steep terrain, near water hazards and where trails are adjacent to motor vehicle roadways.

1.2.10 Visibility - Provide for clear visibility corresponding to travel speed of trail users, especially at trail intersections, corners and curves.

1.2.11 Topography - Follow the existing topography. Lay out trails to minimize cut and fill of natural topography, while maintaining an appropriate grade for each trail use.

1.2.12 Drainage - Lay out paths that conform to the existing topography and minimize impact to natural drainage. Design trails according to the Department of Environmental Protection's (DEP) regulations. To prevent erosion on trails, water should be diverted using water breaks or bars (at an angle other than 90 degrees to the trail), graded dips, and out sloping. Drainage ditches or culverts may also be needed for cross drainage. Use indigenous vegetation to prevent erosion wherever appropriate and feasible.

1.2.13 Vertical/horizontal clearance - Clear overhanging limbs and vegetation, to maintain safe trail height and width guidelines, accord-

ing to the intended use of the trail.

1.2.14 Obstructions - Eliminate or modify large obstructions that prevent or hinder passage or provide alternative passage if possible, feasible or appropriate. Where this is not possible, clearly notify of the obstruction sufficiently in advance of the obstruction.

1.2.15 Organic Materials - Use organic and indigenous materials when possible and practical for the construction of trails.

1.2.16 Trash Receptacles - Provide trash receptacles at primary and secondary trailheads, picnic areas and campsites. All trail corridors should be subject to a "pack it in, pack it out" policy.

1.2.17 Inspections/Evaluations - Trail managers should conduct preventative maintenance inspections of trails at a minimum of once per year and schedule repairs as necessary.

1.2.18 Maintenance - Trails should have regularly scheduled tread maintenance, pruning, removal of exotic plants, hazards and unsightly debris and trash. Encourage volunteers to assist in trail maintenance.

1.2.19 Flood-Prone Areas - Route trails around, provide alternative trails or temporarily close trails during periods of flooding. Boardwalks, bridges, culverts, existing roads and abandoned rail beds should be utilized for traversing the flood prone area during periods of flooding.

1.2.20 Wetlands/Environmentally Sensitive Areas - Route land based trails around wetlands wherever possible. Utilize boardwalks, bridges, and culverts to cross wetlands wherever feasible, in accordance with applicable regulations.

1.2.21 Buffers - Preserve or replant native or indigenous vegetation to be used as screens where necessary to buffer trails from surrounding areas and to enhance the trail user's experience.

1.2.22 Community Involvement - Solicit community leadership support for trail development. Promote local involvement with trail planning, construction and maintenance. Promote alliances between various trail user groups in an effort to maximize resources and efforts.

1.2.23 Aesthetics – Trail design, signage, and amenities should be in keeping with the trail setting and should not detract from the trails' character. For example, wilderness trails should maintain a wilderness look and feel.

2. Design guidelines

2.1 Location and routing

2.1.1 Topography and Drainage - Trails should be designed to limit cut and fill and take advantage of varied topography that does not restrict travel and maintains natural drainage where possible.

2.1.2 Diversity of Natural Experiences - Locate trails in areas with diverse habitats, ecosystems, landscapes, areas of natural scenic beauty and proximity to water bodies whenever possible. This diversity should provide for a wide range of opportunities and a variety of experiences.

2.1.3 Environmental Impact - Trails should be developed with an awareness of regulations and environmentally sensitive resources and areas. Planning and construction techniques should be of minimal impact and should strive to protect all lands, wildlife, vegetation and water related features. Trails should not adversely impact sensitive environmental areas, ecosystems, major wildlife migration patterns, or endangered plant and animal communities. Locate trails to avoid fragmenting large intact habitats and provide spur trails to points of interest. Where a trail crossing of a sensitive ecosystem is necessary, either utilize abandoned roads, railroads and other abandoned travelways, or develop other acceptable alternatives. Trail alignment should follow the natural contours of the landscape and should avoid being constructed in "Ecotones". The trail should provide for a variety of trail distances, loops, ecosystems, scenery and degrees of difficulty.

2.1.4 Urban/High Volume Trails - Urban/high volume trails should be conveniently connected to residential areas, schools, activity centers, parks, recreational areas, cultural and historical points of interest. Where feasible, plan trails to be utilized as transportation alternatives to motorized use and to promote local commuter, leisure and tourism. Urban/high volume trails shall accommodate all user types where appropriate and shall comply with

the guidelines set forth by the Americans with Disabilities Act (ADA).

2.1.5 Rural/Primitive/Low Volume Trails - Rural/primitive/low volume trails should take into consideration accessibility to areas with diverse natural and cultural experiences. These trails tend to experience a low volume of users at any given time, contain few amenities and are usually located away from populated areas.

2.1.6 Accessible Trails - Trails and facilities shall be developed in accordance with the guidelines set forth by the ADA published by the Department of Community Affairs. Refer to Universal Access to Outdoor Recreation: A Design Guideline, published by PLAE, Inc. for IG Communications 1802 5th St., Berkeley, California 94710 for additional resources. Modifications can be made to existing trails without reducing the quality of the experience.

2.1.7 Trail Linkages - Trail location and routing should encourage connections to other trails throughout the state. Strive for linkages from local to regional to statewide trail systems to provide for trail continuity and long distance users.

2.1.8 Public Land Use - Utilize public land and rights-of-ways whenever possible to minimize private property acquisition. Check land ownership and ensure proper easements, use permits, licenses and agreements/contracts have been obtained. Consideration should be given to state, regional and local comprehensive plans and land development codes for future trail development.

2.1.9 Road/Railroad Crossings and Sight Lines - Design and route trails to minimize contact and conflict with motorized vehicles and provide the appropriate sight lines for safety at the trail crossing. Refer to the Florida Department of Transportation (FDOT) Bicycle Facilities Planning and Design Manual for the appropriate manner to cross motorized corridors.

2.1.10 Social and Economic Impact - Consideration should be given to both negative and beneficial impact of trails on other public facilities, activities and transportation.

2.1.11 Archaeological and Historical Resources - Consider the impact to known and unknown archaeological and historical sites. Efforts should be made to make interpretation of these sites an integral part of the trail system. Where feasible, archaeological and historic sites (including ruins, working landscapes and historical landscapes) should be included in trail brochures and maps as points of interest.

2.1.12 Air Quality & Noise - Whenever possible, avoid locating trails in close proximity to heavy traffic and/or active industrial areas.

2.1.13 Contaminated Sites - Do not locate trails on known contaminated sites.

2.1.14 Prescribed Burns - Consider that prescribed burning in naturally vegetated areas is an acceptable management practice and may temporarily impact trail access.

2.1.15 Consultation with Authorities - Consult with Federal, State, Local, and other land management authorities to determine regulations for appropriate trail use.

2.2 Self direction

2.2.1 Standardized Trail Marking System - Provide a standardized, universally recognized, and easily understandable trail and marking system. This trail marking system should be used at hazardous points and directional changes along the trail.

2.2.2 Signs/Maps - Provide signs, maps and brochures at all trailheads, information kiosks appropriately placed along the trail, to indicate permitted type of trail use, and to inform trail users how far they have traveled, trail difficulty rating and their approximate location on the trail. Signs and maps may also make note of such things as landmarks, commonly seen wildlife, unusual features and sites of historical or ecological significance. All signs should be easily identifiable, vandal resistant, weather resistant and durable.

2.2.3 Private Property – Trails often go through or border private property. Trail users should respect posted signs and exercise caution to avoid trespassing. It is the responsibility of the trail user to know they are not trespassing. Information should be provided at kiosks or on trail maps or en route to inform the trail user.

2.3 Aesthetics

2.3.1 Routing - Wherever possible or feasible route trails along the most visually pleasing

corridor, while maintaining considerations for safety and ecological impact.

2.3.2 Sensory Experience - Stimulate the user's senses by providing a route that includes not only scenic views, but also sounds (streams, waterfalls, etc.), smells (pine, ferns, damp earth, etc.), and things to touch (vegetation, rock formations, water, etc.). Take advantage of scenic vistas for rest stops. Provide amenities where possible.

2.4 Cost-Efficiency

2.4.1 Materials and Equipment - Use locally obtainable or salvage materials and equipment when possible.

2.4.2 Community Involvement - Encourage corporate sponsors, local user groups, volunteers and donations to help plan, build and maintain trails.

2.4.3 Rehabilitation of Existing Trails - Rehabilitate or upgrade existing trails when possible as an ecological and economical alternative to constructing new trails. Encourage the use of abandoned railroads, easements and other rights-of-ways.

2.4.4 Recycled Materials - Utilize recycled materials wherever appropriate.

2.4.5 Life Cycle Costs - Consider life cycle costs in the selection and use of materials for trail construction.

2.4.6 Routing and Location - Consider routing and location during the trail planning phase. Review alternate routes for cost effectiveness, environmental impact of that development and public safety.

3. Trail design and construction guidelines

3.1 Hiking and jogging trails

Hiking and jogging trails may be classified into three general categories: Low, Medium and High usage. Hiking trails should be kept to a minimum width in more sensitive, natural and rural settings if the volume of use is projected to be low. Medium and high volume trails should be designed wider and stabilized to prolong the life of the trail. Location and volume of use may require a design standard for high volume use, such as paved and/or natural surface trails through parks, neighborhoods or activity centers. The following trail design specifications are only guidelines.

3.1.1 Tread Width

Low volume use ..... 1 to 2 Feet
Medium volume use ..... 2 to 5 Feet
High volume use ..... over 5 Feet

3.1.2 Horizontal Clearance - 1 foot minimum on each side of tread. Additional clearance should be provided in hazardous areas (e.g. road crossings, sharp drop offs, tripping hazards).

3.1.3 Vertical Clearance - 8 feet minimum clearance.

3.1.4 Grades

Desirable grade ..... 0 to 10%
Maximum grade for extended slope 10%
Maximum grade for shorter slope 15%
Steps/water bars will be needed ..... >15%
Ramps to bridge/boardwalks 8%

3.1.5 Drainage - Unpaved trails should be cross-sloped or crowned 2% to 5% per foot where needed to ensure the integrity of the tread. See Objective 1.2.12.

3.1.6 Surfaces - Unimproved, unpaved: Natural materials such as indigenous soil, leaf litter, pine straw, mowed grass, wood chips. Improved, unpaved: Gravel, compacted limestone, soil stabilizers crushed shell and graded road base. Consideration should be given to the type of surface used depending on location, cost, expected volume of use and type of users.

3.1.7 Length of Hike

Short Hike ..... 3 to 5 miles
Half-day to One Day Hike ..... 6 to 12 miles
Overnight Hike ..... over 12 miles

3.1.8 Trail Marking - See Appendix A

3.2 Off-road bicycling trails

Non-motorized bicycling trails are classified into two types: Paved and unpaved. These guidelines address only those bicycle trails that are unpaved. The Florida Department of Transportation (FDOT) has developed guidelines for the construction of bicycle lanes, paved shoulders, wide curb lanes and paved multi-use trails. The guidelines are provided in the Florida Bicycle Facilities Planning and Design Manual. This may be obtained from the FDOT, Pedestrian/Bicycle Program, 605 Suwannee Street, MS 82, Tallahassee, Florida 32399-0450. The American Association of State Highway and Transportation Officials (AASHTO) and the Manual on Uniform Traffic Control Devices (MUTCD) has also established guidelines.

3.2.1 Tread Width - 18 inches minimum

3.2.2 Horizontal Clearance - 1 foot minimum on each side of tread. Additional clearance should be provided in hazardous areas (e.g. road crossings, sharp drop offs).

3.2.3 Vertical Clearance - 8 feet minimum (Except to allow for the occasional natural obstruction which enhances the experience, but does not prevent passage)

3.2.4 Grades - 0% to 50% (0% to 5% at approaches to intersections)

3.2.5 Drainage - Unpaved trails should be cross-sloped or crowned 2% to 5% per foot where needed to ensure the integrity of the tread. See Objective 1.2.12.

3.2.6 Surfaces - Unimproved, unpaved: Natural materials such as indigenous soil, leaf litter, pine straw, mowed grass, wood chips. Improved, unpaved: Gravel, compacted limestone, soil stabilizers crushed shell and graded road base. Consideration should be given to the type of surface used depending on location, cost, expected volume of use and type of users. (Soft sandy soils should not be considered for extended bicycle trails).

3.2.7 Length of Ride

Short ride	1 to 10 miles
Medium ride	10 to 40 miles
Long ride	over 40 miles

3.2.8 Trail Marking - See Appendix A

3.2.9 Design Speed - The speed that a bicyclist travels depends on several factors. Type of bicycle, condition of bicycle, purpose of ride, the surface condition, location of trail, the wind speed and direction, and the condition of the rider. Bicycle trails should be designed for speeds that are appropriate for the particular terrain and topography.

3.2.10 Turning Radius - Urban/high volume bicycle trails should have a 20 foot minimum turning radius. Each trail should consider that the design of trail curvature is dependent on the average speed of the cyclist. Increased speed due to a downhill slope requires a longer radius of curvature. Banking and widening the tread on curves provides increased safety. Wilderness bicycle trails should have a turning radius from 2 to 6 feet. The turning radius may be constrained by natural obstructions such as trees, water, rocks or environmentally sensitive areas.

3.3 Equestrian trails

Equestrian trails usually occur on natural and unpaved surfaces and are designed for a horse and rider traveling in single file to achieve a "backwoods experience" and facilitate a closeness with nature. Any site considering equestrian trails should have access to sufficient land to develop or connect to at least five miles of trail. Horse-drawn wagons or carriages are gaining in popularity and usually travel on jeep or two-lane dirt roads where access is available to bridges for crossing creeks and streams. Consideration should be given to identifying appropriate road systems on public lands that could accommodate "driving trails".

3.3.1 Tread Width - 18 inches minimum

3.3.2 Horizontal Clearance - 2 feet on each side of the tread width. Additional clearance should be provided in hazardous areas (e.g. road crossings, sharp drop offs, tripping hazards).

3.3.3 Vertical Clearance - 10 feet minimum clearance overhead.

3.3.4 Grades

Desirable grade	0% to 10%
Maximum grade for extended slope	18%
Maximum grade for shorter slope	25%

3.3.5 Drainage - Unpaved trails should be cross-sloped or crowned 2% to 5% per foot where needed to ensure the integrity of the tread. See Objective 1.2.12.

3.3.6 Surfaces - Unimproved, unpaved: Natural materials such as indigenous soil, leaf litter,

pine straw, mowed grass, wood chips. Improved, unpaved: Compacted limestone, soil stabilizers and graded road base. Consideration should be given to the type of surface used depending on location, cost, expected volume of use and type of users. (Soft sandy soils and gravel should not be considered for extended horse trails).

3.3.7 Length of Ride

Short to half-day ..... 5 to 16 miles
Full day ..... 17 to 32 miles
Overnight trip ..... Over 32 miles
(Access to water should be provided every 5 to 10 miles along trail)

3.3.8 Trail Marking - See Appendix A.

3.4 Paddling Trails

Paddling trails are publicly owned waterways that possess scenic and recreational qualities and are accessible by the public. Florida has a great diversity of waterways systems suitable for paddling trails. These include rivers, creeks, lakes, estuaries and coastlines, including all waters of the state. Paddling trails shall comply with U.S. Coast Guard and Florida Marine Patrol (FMP) regulations. Contact the FMP Office of Waterways Management for an in-water informational signage installation permit.

3.4.1 Water Depth - Except for periods of extreme drought, paddling trails should be a minimum depth of 6 inches.

3.4.2 Portage - Use hiking trail guidelines for land based portage trails.

3.4.3 Trip Length

Short to half day ..... 2 - 08 miles
Full day ..... 8 - 15 miles
Overnight ..... Over 15 miles

3.4.4 Trail Marking - See Appendix A.

3.5 Unpaved Multi-Use Trails

For the purposes of this document multi-use trails are categorized as trail corridors for multiple trail user groups.

3.5.1 Trail Corridors - Single use trails in close proximity to each other with the same geographical location should consider using more than one tread type where appropriate. Refer to specific trail design and construction guidelines for each user group.

3.5.2 Unpaved Multi-use Trail - Unpaved multi-use trail for high volume usage is not recommended. Unpaved multi-use tread for low and medium volume should be as follows:

3.5.2.1 Tread Width - Optimum 5 feet minimum.

3.5.3 Horizontal Clearance - 1 foot minimum on each side of tread.

3.5.4 Vertical Clearance - 10 feet minimum.

3.5.5 Grades

Desirable grade ..... 0% to 5%
Maximum grade for extended slopes 10%
Maximum grade for shorter slope 15%

3.5.6 Drainage - Unpaved trails should be cross-sloped or crowned 2% to 5% per foot where needed to ensure the integrity of the tread. See Objective 1.2.12.

3.5.7 Surfaces - Unimproved, unpaved: Natural materials such as indigenous soil, leaf litter, pine straw, mowed grass, wood chips. Improved, unpaved: Compacted limestone, soil stabilizers, and graded road base. Consideration should be given to the type of surface used depending on location, cost, expected volume of use and type of users. (Soft sandy soils and gravel should not be considered for extended multi-use trails).

3.5.8 Trip Length - Will vary according to user type.

3.5.9 Trail Marking - See Appendix A of this appendix.

4. Support facilities

Support facilities consisting of trailheads, parking and staging areas are necessary to the function, management, accessibility and safety of trails. Not all trails are required to have a primary or secondary trailhead. Location and layout of support facilities should be designed uniformly with sensitivity to the environment, should accommodate users and should be constructed in compliance with ADA guidelines.

4.1 Trailheads

Trailheads are points of beginning or starting on a trail system. A trailhead will be designated as a location for information about the trail. Provisions should include parking and staging areas. Trailheads are classified as follows:

4.1.1 Primary - A primary trailhead consists of designated parking and staging area, public telephone, public restrooms, refuse containers, information and interpretive signs, maps or brochures, potable water, picnic facilities, covered shelters, electric service, other appropri-

ate amenities, and direct access by management personnel.

4.1.2 Secondary - A secondary trailhead includes a designated parking and staging area, possibly restrooms, refuse containers, information signs, maps or brochures, potable water, covered shelter, and access by management personnel.

4.1.3 Remote - A remote trailhead includes parking and staging area, information signs, maps or brochures, and access by management personnel.

4.2 Rest stops

A designated place to stop along a trail. A rest stop may consist of, as a minimum, a bench placed in the shade or with a roof structure. Consider issues such as surveillance, security & distance when planning rest stop.

4.3 Parking and staging areas

It is important to consider the average and maximum user capacity of a trail when planning parking needs. Parking lots should be sized consistent with the use demands, trail activity, and user type. Minimum parking for 25 vehicles should be provided at primary trailheads and may be extended to 100 spaces. Parking lots must provide adequate space for vehicles with trailers and include the proper turning radii. Staging areas at trailheads should be located with convenient and safe access to the trail.

4.3.1 General Parking - Follow FDOT guidelines.

4.3.2 Equestrian Trailer Parking - Should be non-asphalt and designed as a row of pull-through spaces each 45 feet deep and 15 feet wide for unloading horses and to allow horses to be tied to trailer sides. To accommodate overflow parking, additional space is recommended. When designing for equestrian parking consider accessibility to shade and potable water.

4.3.3 Canoe Trailer Parking - Canoe trailer parking design should be similar in size to the equestrian trailer parking. Canoe parking spaces should be pull-through. A staging area should be designed with close proximity to the water edge to control access.

4.3.4 Bicycle Racks - Racks should be provided at all primary trailheads. They should meet all FDOT design guidelines. Staging areas are the most suitable location for bicycle racks.

4.4 Camping

Where desired, permitted and appropriate, provide for camping as follows:

4.4.1 Primitive Camping - zones shall contain minimal amenities and be in remote areas. Primitive campgrounds should be accessible only by foot, horseback, bicycle, or canoe. The campsite should be screened from the main trail. Clearly define the camping zone with signs. Design should consider the lay of the land, with level, normally dry forested areas preferred. Campsites located within various public agency lands shall comply with those agency regulations. Provide vertical, open space for tents and horse areas. All primitive camping should be under the "pack it in-pack it out" policy.

- Hiking, Bicycling Camping - Provide space to be used as designated camping areas. Area needs to be well defined.
- Equestrian Camping - Provide an area in close proximity to camping area for tying or tether lines for horses. Area needs to be well defined.
- Paddling Camping - Where no dry land is available along paddling trails, a covered platform may be provided above the high water mark. Provide a self contained or equivalent restroom facility.

4.4.2 Location - Camping zones should be designated a short distance off the main trail and well marked.

4.4.3 Space Standard - Where appropriate land is available, provide a minimum of 1 acre (8 to 10 campsites) as a designated camping zone. If possible, provide multiple sites appropriately spaced. Larger areas should be designated for trails with greater use. Equestrian camping zones will require a minimum of 2 acres (8 to 10 campsites) for camping and horse accommodations.

4.4.4 Amenities - Suggest fire pits or fire rings where permitted. Consideration should be given when choosing areas for camping, where natural water systems are located for potential sources of drinking and cooking water.

4.5 Developed/Group camping

Developed camping should contain amenities. The campsite should be screened from the main

trail. Clearly define the camping zone with signs. Design should consider the lay of the land, with level, normally dry forested areas preferred. Campsites located within various public agency lands shall comply with those agency regulations. Provide vertical, open space for tents and horse areas.

4.5.1 Location - Camping zones should be designated off the main trail at a short distance. Access by management and emergency vehicles shall be designed.

4.5.2 Space Guidelines - Developed camping areas should be designed with space available for use by all user groups. Campsites should be built to accommodate travel trailers, motor homes, horse trailers, canoe trailers. Equestrians, bicyclists and canoeists will require additional space for racks, stalls, corral, wash down areas, hitching posts, trailer parking.

4.5.3 Amenities - Types of amenities may include electrical hookups, water hookups, designated and numbered sites, trailer dump station, refuse station, restroom with showers, picnic tables, fire rings, security, pavilions, cabins, concessions, docks firewood, stables, corrals and access by management personnel.

5. Trail crossings

5.1 At-Grade Crossings

Whenever it is necessary to cross roadways and railroad tracks with a trail, special care must be taken to ensure the safety of trail users. Selection of a safe crossing may take precedence over a scenic route or require the lengthening of the trail to allow for both.

Appropriate signs should be installed to warn trail users as well as motorized traffic of the crossing and any dangers or hazards that might be encountered. Clear visibility at road crossings is required. Adequate stopping sight distance must be provided for motorists and trail users.

Equestrian trail crossings at paved roads and railroad tracks, should have enough cleared space on both sides of the road or track to allow riders to gather in a group and cross together. On equestrian trails, a ford through the water may be used for crossing a waterway that is less than 30 inches deep, where approach is gentle and stream bottom is firm. Avoid fording areas where erosion and resource damage may occur. Water level indicators are required at all fords.

5.2 Above-Grade Road Crossings

Refer to Florida Department of Transportation guidelines.

5.3 Above-Grade Trail Crossings

Bridges and boardwalks should be used where necessary. Trails approaching any crossing should not be reduced in width. It should also be straight and cross at a right angle to the road or rails. When it is not possible to cross at 90 degrees, the trail should be widened to allow the users to cross as close to 90 degrees as possible. Bridges should be constructed above the seasonal high water mark.

5.4 Water Crossings

When crossing over paddling trails, allow for a minimum of four (4) feet of vertical clearance under the bridge at the seasonal high water mark. Bridges with an elevation of over 36" above grade or swift moving water shall have railings at a minimum height of 42 inches.

5.5 Fence, Gate and Barricade Crossings

Trails often run through property boundaries. Where the trail meets a fence that must remain intact, a fence crossing or stile is needed. Gates which must be opened and closed should have signs to remind trail users of their responsibility to close gates after use or should be equipped with an automatic closer, however, this situation should be avoided where ever possible. Barricades should be installed to prevent unauthorized users from entering a trail. They should allow for unrestricted access by the appropriate trail user, as well as controlled access for emergency, maintenance and patrol vehicles. (See Appendix C).

6. Accessible facilities

Modifications can be made to existing trails without reducing the quality of the experience. Refer to the Americans With Disabilities Act (ADA) and/or Universal Access to Outdoor Recreation: A Design Guidelines, on how to achieve increased outdoor access. Parking lots, buildings and walkways at trailheads must be constructed in compliance with ADA guidelines.

Appendix A - Trail signs and markings

Trail Marking - Signage provides trail users with information they need to use trails and trail facilities. Trail signs need to be carefully designed and appropriately installed according to type and level of use expected. However, trail users/builders should avoid oversigning, which can clutter the environment and result in information overload. Signs must be clear, concise and legible. Their location and placement is critical.

I. **Trail Signs** are divided into six categories: Directional, Informational, Regulatory, Warning, Educational and Festival.

- A. **Directional Signs** are used to inform trail users of their bearing and route of travel. Signs are recommended to contain some form of graphic symbol and/or a brief description.
  1. Clearly distinguish all primary trail routes from side, access, loop, connector or cross trails.
  2. Use double blazes or some form of graphic symbol for changes in trail direction.
- B. **Informational Signs** are used to orient trail users as to their location on or within a trail system, provide an overview of facilities and/or amenities and a description of the route to reach them. Informational signs can also indicate trail length, number of miles traveled (milepost), as well as other information.
  1. Material, color, and size of sign used should be consistent within a given trail.
  2. Use international symbols for all graphics.
  3. Designated camping areas should be blazed with 6 inch wide bands painted around trees, poles or posts or marked with a graphic symbol, surrounding the entire boundary of the camping zone.
- C. **Regulatory Signs** are used to notify trail user of laws, regulations and rules governing the trail, such as permitted uses, hours of operation or accessibility.
  1. Signage must comply with the agency having jurisdiction over land trail crosses.
  2. All regulatory signs should be of black lettering on a white reflective background, unless otherwise directed by the agency having jurisdiction.
  3. Check with local authorities for specific regulations.
- D. **Warning Signs** are used to caution trail users about hazards that may be encountered on trails, such as sharp curves in the trail, slippery bridges, roadway crossings, steep downhill or uphill conditions, blind intersections, changes in trail surface conditions and waterway hazards.
  1. Warning signs should be of uniform size and placed at a minimum of 50 feet before the hazard and located at the hazard.
  2. Warning sign should be of black lettering on a reflective yellow background.
  3. Sign should be consistent along the same trail.
- E. **Educational/Interpretive Signs** describe unique natural or cultural features along the trail. Material, color and size should be consistent along the same trail.
- F. **Festival Signs** are used to promote and advertise special activities and event and are designed at the discretion of the trail manager.

II. **Trail Marking and Signing**

- A. **Trail Blazes and Signs**
  1. Blazes should be painted vertically at a minimum of 2 inches wide and 6 inches long.
  2. Double Blazes or a sign should be used to indicate a change of direction when the trail is departing from an obvious path. Double blazes should be painted one above the other at 2 inches apart.
  3. Blazes or signs should be frequent enough along the trail and indicate the appropriate user type on the correct trail.
     - a. The distance between blazes will vary with terrain or water body.
     - h. The trail must be blazed or signed so it can be followed in either direction.
- B. **Camping Blazes or Signs**
  1. Designate camping areas with 6 inch wide bands painted around trees, poles or posts surrounding the camping area.
  2. Designated camping areas may be signed on trees, poles or posts surrounding the camping area.
- C. **Graphic Symbols** - Utilize international symbols wherever possible.
- D. **Attachment methods**
  1. Paint - Paint directly to tree surface.
  2. Nailed - Use aluminum nails only for use on trees.
  3. Post-mounted
     - a. Land Based - Lumber buried directly into ground a minimum of 2 feet deep, preferably with a cross member at bottom for stability.
     - b. Water Based - Refer to section III. Trail User Signage and the attached "Specifications for Marking Canoe/Kayak Trails" as approved by the Florida Marine Patrol.

III. **Trail User Signage**

A. **Hiking**

1. Marking should be 4 to 6 feet high on poles or posts along the trail.
2. Marking should be 5 to 6 feet high on trees along the trail.

B. **Bicycling**

1. Marking should be 4 to 6 feet high on poles or posts along the trail.
2. Marking should be 5 to 6 feet high on trees along the trail.

C. **Equestrian**

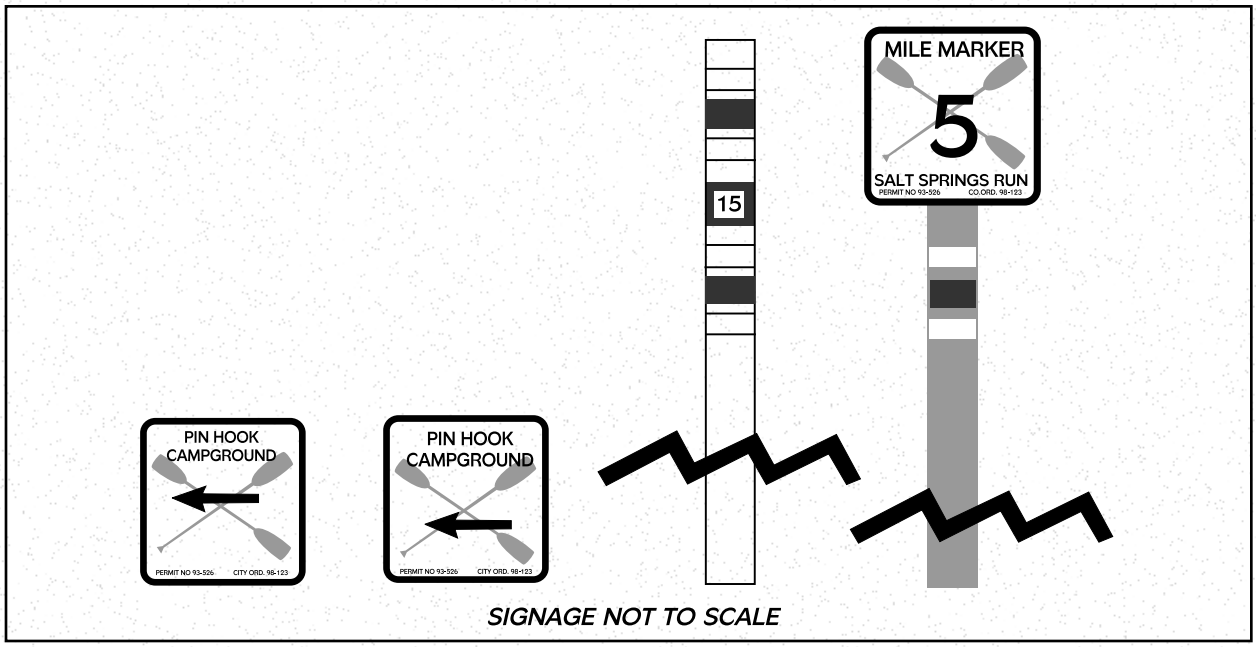
1. Marking should be 4 to 6 feet high on poles or posts along the trail.
2. Marking should be 7 to 8 feet high on trees along the trail.

D. **Paddling**

1. Land-based signage – Signs placed on waterway banks shall be visible at varying water levels by the paddlers and should follow the attachment methods in II.D. 1 through 3a.
2. In-Water informational signage – Review by the U.S. Coast Guard and the U.S. Army Corps of Engineers has been completed. The following conditions have been approved for use as described below.
   a. Signs placed in Florida waterways require a permit and shall comply with U.S. Coast Guard and Florida Marine Patrol regulations. Contact the FMP Office of Waterways Management for installation permit.
   b. Markers/signs shall only be placed on one side of the paddling trail. Markers/signs shall be placed on shore or as close as possible to the shoreline, so as not to be mistaken for navigational aids.
   c. Markers/signs shall be placed out of the "main" body of water so as not to become a hazard to navigation and/or safety for powered boats.
   d. Markers/signs shall be a minimum of 12 inches by 12 inches and a maximum of 18 inches by 18 inches.
   e. Markers/signs material shall be white reflective background with an international orange border, black block characters and brown crossed kayak and canoe paddles. (To be utilized on signs only.)
   f. Markers/signs to be mounted on min. schedule 40 PVC pipe, 4 inches in diameter.
   g. Pile markers/signs are recommended in areas where facilities are not available, or it is not possible to install the larger signage. Utilize min. schedule 40 PVC pipe, min. 6 inches in diameter. Markings on the pile markers/signs shall be white reflective back ground with an international orange border, black block characters and brown crossed kayak and canoe paddles.
   h. See next page for illustration.

E. **Multi-Use** - Use biking/hiking marking heights.

Specifications for Marking Canoe/Kayak Trails



Appendix B

I. **Fence Crossings, Gates and Barricades** should be kept to a minimum to traverse trails. When safety, security, legal requirements, etc., require fence, gate or barricade crossings, to access the trail, the following guidelines are suggested:

A. **Fence and Gate** - If a permanent pedestrian opening cannot be negotiated through a fenced area, then a gate should be installed with a sign to trail users to be sure to close gate behind them or with instructions about who to contact if it must be kept locked. Another standard that may be used is a self-closing hinge on a gate that will automatically close due to a spring mechanism in the hinge. Fences maintaining livestock in a field or pasture can be fitted with a pedestrian baffle or a stepladder crossing (stile).

B. **Barricades** - Barricades are usually used to prohibit motorized vehicles from trails or to separate one trail use from another. Signs should accompany the barricade explaining what is expected so that intentions are clear and enforcement is easy. Barricades should allow for unrestricted access by pedestrians, equestrians and cyclists as well as controlled access for emergency, maintenance and patrol vehicles. Wooden or reinforced concrete posts should be 24 inches to 30 inches in height and placed 4 feet to 5 feet apart and be marked with a readily visible reflective or painted surface.

Appendix C

Terms Used in the Trail Guidelines Document

Amenities - Any element used to enhance the user's experience and comfort.
Debris - Any undesirable material that encroaches on a trail that hinders the intended use.
Ecotone - Transition zone between 2 plant communities.
Guardrail - A protective barrier placed along hazardous sections of a trail.
Interpretive Sign or Display - An educational sign or display that describes and explains a natural or cultural point of interest on or along the trail.
Kiosk - A structure housing informational or interpretive displays.
Multi-use Trail - A non-motorized trail shared by more than one user group.
Off Road Bicycle/Bike - A term used to define the non-motorized bicycle ridden on unpaved trails. Synonymous terms include: Fat Tire Bike, All Terrain Bicycle (ATB) and Mountain Bike.
Staging Area - A short term parking area located within close proximity to the trail for off landing gear.
Trail Degree of Difficulty Rating - A rating of trail difficulty based on an average user with average physical abilities.

- Easy is defined as relaxing, posing minimal difficulties and able to be traveled with little physical effort.
- Moderate is defined as not requiring excessive or extreme physical effort.
- Difficult is defined as physically strenuous requiring excessive or extreme physical effort.

Trailhead - A point of access or starting place of a trail system. A trailhead will function as a location for information about the trail. Trailheads are classified into three categories: Primary, Secondary and Remote, and should include as a minimum:

- Primary Trailhead consists of improved parking areas, public telephone, sanitary facilities, information and interpretive signs, maps and brochures, potable water, picnic facilities, electric service, direct access by management personnel and other amenities.
- Secondary Trailhead consists of unimproved parking areas, sanitary facilities, information signs, maps or brochures, potable water and access by management personnel.
- Remote Trailhead consists of an unimproved parking area, bench information signs, maps or brochures and access by management personnel.

Wetland - a lowland area, such as a marsh or swamp, that is saturated with water, creating a unique naturally occurring habitat for plants and wildlife.

Appendix D

Trail Construction Bibliography

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APPENDIX F

FOREST STEWARDSHIP PLAN

FOREST STEWARDSHIP PLAN

OBJECTIVES

Aesthetics

Natural forests and pastoral agricultural areas, including wildflower meadows, will be promoted for a high visual quality. Special attention will be paid to preserving already existing viewscapes for both motorist and greenway users.

Timber

Silvicultural activities will involve maintaining a natural diversity of plant communities. Longleaf pine which historically occurred in greater numbers will be reestablished on some of the uplands. Invasive exotics will be controlled throughout. Safety will also be a concern along Miccosukee road and in other adjacent areas frequented by people. Prescribed fire and selection cutting will be the main management tools in upland stands. Herbicide treatments and hand planting will also be utilized where other methods are inadequate.

Wildlife

Wildlife management will involve maintaining many of the naturally occurring plant and animal communities by utilizing prescribed fire on upland sites. Featured species being managed for include both game and non-game native wildlife. Upland stands will be maintained with early growing season (February-June) prescribed fires on a two to three year frequency.

Permanent openings will be established at the interface between upland and wetland communities as well as in specified areas within upland stands. Portions of these openings will be planted to various wildflowers, small grains, and legumes to provide a supplemental food sources for resident wildlife species while enhancing aesthetics and wildlife viewing opportunities. Maintenance of the unplanted portions of the openings will be accomplished by mowing and seasonal soil disturbance.

Mowing should be conducted September through February to avoid disruption of ground nesting species, such as turkey and quail. Fireline maintenance should be conducted during the winter months when soil disturbance encourages the production of beneficial native food plants such as partridge pea, milk pea, and beggarweed. Under-stocked upland sites will be reestablished to longleaf pine by natural regeneration with reinforcement plantings. This species of pine will be most conducive to ensuring adequate forage production through the use of prescribed fire. During reforestation efforts as many standing snags as possible shall be left standing for the benefit of cavity nesting species.

Pets should be on a leash to avoid killing and harassing wildlife. Stray cats and dogs should be reported to the proper authorities for removal.

If trees and shrubs are planted for shading, screening or beautification purposes, non-invasive native species should be planted to the maximum extent.

A survey of native vegetation and animal species, including migratory birds, will be conducted by the Leon County Department of Development Support & Environmental Management or by other qualified individuals, with assistance from the City of Tallahassee and the State of Florida, nongovernmental conservation and other organizations, and individual volunteers.

Invasive Exotics

Invasive exotic plants are found throughout Florida, including Leon County. There are many invasive exotics species found locally, including on lands managed as parks and greenways. Management techniques for invasive exotic plants specific to Florida can be found through the Florida Exotic Pest Plant Council (http://www.fleppc.org). Identification and monitoring of invasive exotic plants should be ongoing activities. These tasks can be done by trained volunteers if staff time is not adequate to do these.

Prescribed Burning

Prescribed fire is an important tool in Florida for managing the aesthetic values of natural landscapes in addition to managing fuels, wildlife habitat, and native plant species.

In cases where prescribed fire is recommended, the prescribed fire boss (manager) will determine beforehand if it can be done safely. This will become increasingly crucial as adjacent areas become more populated and conflict with smoke and escaped fire becomes more possible (likely). Smoke-sensitive areas include I-10, Miccosukee Road, Crump Road, and neighborhoods in close proximity to the greenway. A forestry consultant can be hired to assist County staff with prescribed burning to avoid destroying many years of growth. Staff must also secure authorization from the Florida Forest Service (FFF) prior to prescription burning.

If prescribed fire is recommended and can be conducted safely, a burn plan must be completed prior to prescribed burning. Firelines must also be established and maintained around the perimeter of the greenway to reduce the risk of wildfire and assist in control burning, using natural breaks, roads, and trails where possible. These firelines should connect to or terminate at wet areas and roadways and trails. Avoid cutting firelines in wet areas to minimize damaging wetlands and streams bed. Assistance with the design, implementation, and maintenance of firelines can be obtained from the FFF.

If prescribed fire cannot be safely conducted, then mechanical substitutions (bush hogging) or grazing by sheep should be used in place of fire to control fuel buildup.

Once firelines are established, begin to carefully prescribe burn on a one to three year rotation. The objective of these burns will be to control hardwoods. Prescribed fire also increases forage for wildlife and reduces wildfire hazards. Do the first burns in January-March. Following burns can be done in January-March or April and May if weather conditions are right.

Fire alone may not be enough to keep hardwoods in check. If this is the case, these areas can be bushhogged to supplement burning as a method of hardwood control.

Fireline maintenance should be conducted during the winter months when soil disturbance encourages the production of beneficial native food plants such as partridge pea, milk pea, and beggarweed. In areas with steep slopes, firelines and temporary roads can be seeded with a cover crop to help control erosion and can be used as feeding areas to attract wildlife.

Recreation

There are abundant opportunities for hiking, birdwatching, wildlife viewing, bicycling, and horseback riding. Establishment of trails, utilizing existing logging roads and construction of catwalks across wetland sites will facilitate access to the property as a whole, without inhibiting natural water fluctuation. Along trails, interpretive signs will allow users to identify flora and other points of interest. management of openings by planting to wildflowers and wildlife forages will also increase viewing opportunities.

Agriculture

Various types of agriculture have had impacts on the land. Some of these are considered desirable. Other management techniques such as mowing and disking can achieve the same results.

Soil and Water

Soil types occurring on the property include Lucy, Norfolk, Orangeburg, Plummer, Ocilla, Albany, Wagram, Lynchburg, Blanton and Pelham. Lucy fine sand is a well-drained soil on upland ridges and hillsides. Slopes vary from 0-5%. Natural fertility is low. Norfolk loamy fine sand has a 2-5% and 5-8% slope and is well drained. It is a gently sloping soil to strongly sloping on uplands. Natural fertility is moderate to moderately low on steeper slopes. Orangeburg fine sandy loam is a well-drained, gently to strongly sloping soil on uplands. The slopes of Orangeburg fine sandy loam vary between 2-5%, 5-8% and 8-12%. Natural fertility is moderate. The Plummer fine sand is a poorly drained nearly level soil that is in low areas and poorly defined drainage ways. The water table is within 15 inches of the soil surface for 3-6 months in most years. Natural fertility is low. Ocilla fine sand is a somewhat poorly drained, nearly level soil on moderately low uplands. Ocilla soil has a water table within a depth of 15 to 30 inches for 2 to 6 months. Slopes range from 0-2% and are slightly convex. Natural fertility is low. Albany loamy fine sand is a somewhat poorly drained, nearly level soil (0-2% slopes) on lower elevations of uplands. The water table reaches 12 to 30 inches below the soil surface for 1 to 2 months of the year but the upper soil layers usually have very low available water capacity. Albany soil's natural fertility is low. Wagram loamy fine sand is a well-drained nearly level to gently sloping soil on broad upland ridges. Slopes are from 0-5%. Natural fertility is moderately low. Pelham fine sand is a poorly drained nearly level soil on broad flatwoods, in depressional areas and in some drainage ways on uplands. Slopes range from 0-2%. The water table is within 15 inches of the soil surface for 3-6 months in most years. Natural fertility is low.

Lynchburg fine sandy loam is a somewhat poorly drained, nearly level soil that is found in shallow depressional areas and on broad interstream divides. Slopes range from 0-2%. Lynchburg soil has a water table that is 6-20 inches below the surface for 1 to 3 months during spring and winter months in most years. Natural fertility is low. The Blanton fine sand soil is a nearly level to gently sloping soil on moderately well drained uplands. Slopes are 0-5%. It has low natural fertility. See the table on the next page describing soil types. Maps 6a and 6b indicates soil types on the Greenway.

Table 1: Soil Types.

Soil Type	Vegetative Community	Slope	Drainage	Site Index[a]
Albany	pine/hardwood	0-2%	somewhat poorly drained	80
Blanton	pine/hardwood	0-5%	moderately well-drained	80
Lucy	pine/hardwood	0-5%	well-drained	80
Lynchburg	pine/hardwood	0-2%	somewhat poorly drained	90
Norfolk	pine/hardwood	2-5% and 5-8%	well-drained	90
Ocilla	pine/hardwood	0-2%	somewhat poorly drained	80
Orangeburg	pine/hardwood	2-5%, 5-8%, and 8-12%	well-drained	90
Pelham	wetland forest	0-2%	poorly drained	90
Plummer	wetland forest	level	poorly drained	90
Wagram	pine/hardwood	0-5%	well-drained	80

[a] Site Index is defined as the average height of the dominant and co-dominant trees within an even-aged stand of the selected species at age 50 years.

SPECIFIC STAND RECOMMENDATIONS

Stand 1

This stand is 68.2 acres and is a pine dominated forests with a narrow strip of area dominated by hardwoods along Miccosukee road. The dominate soil type for this stand is Orangeburg 2-5, 5-8% and 8-12% slopes. There is also a small area of Norfolk loamy fine sand with a clayey substratum 5-8% slopes in the west corner of the property. A fenced off graveyard is located in this stand.

Generally the dominate trees are shortleaf and loblolly pine. Other trees include live, water and laurel oaks, sweetgum, dogwood, southern red oak, mockernut hickory, southern magnolia wax myrtle, yaupon holly, southern crab apple, red cedar, Chickasaw plum, elderberry, black cherry and on the far west end some post oaks. Understory plants include greenbrier, American beautyberry, St. Johns wort, dogfennel, goldenrod, love grass, yellow jasmine, partridgeberry, ebony spleenwort, bahiagrass, broomsedge and blackberry. The invasive exotics mimosa, silver buckthorn, Chinese privet, Japanese honeysuckle, coral ardesia and Japanese climbing fern were also found. This stand most closely resembles an upland pine forest as described in the Florida Natural Areas Inventory's "Guide to The Natural Communities of Florida" (appendix) or (http://www.fnai.org/naturalcommguide.cfm).

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

To control fire danger and brush, the pine dominated areas of this stand should be mowed and/or bush-hogged on a 2-3 year rotation. Mowing should be conducted from September to February to avoid disruption of ground nesting species such as turkey, quail and rabbits. Take care to avoid damage to the hardwood corridor along the road.

Roads and trails could be used as firelines, and often occur at points of contrast between hardwood or pine-dominated woods.

Stand 2

This stand is four areas that are parts of larger fields. Their acreages are 1.5, 1.5, 2.6 and 2.7. The soil type in this stand is Orangeburg with 2-5% and 5-8% slopes.

Species found in the fields vary between areas dominated by bahiagrass and areas that are more diverse in species. Plants found include goldenrod, paspalum, blackberry, sorrel pokeweed, vetch, ragweed, thistle, galium, greenbrier American beautyberry, dogfennel and aster. A few trees are found in these fields including a live oak in the 2.6 acre field and some young laurel oak, elderberry, Chickasaw plum, black cherry and cherry laurel. Also, the invasive exotic plants Chinese privet, tropical soda apple and Ligustrum were found.

To maintain these as open fields continue to mow them and have a vegetative buffer planted on the north border of the greenway property.

The 1.5 acre field should have a vegetative buffer planted on the north boarder of the greenway property and then managed as a small open field. Use the same methods of grass management as described in the previous stand or make it a big wildflower garden/ wildlife food plot.

The 2.7 acre field should be managed as a wildflower meadow. See the stand map and map of this stand in the wildflower appendix to determine location of wildflower meadow types. Use the same methods for establishment and maintenance of wildflower meadows as described in the appendix and Stand 3. In the future it may be desirable to establish wildflower meadows in the other open fields

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

For access roads on all fields, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the view shed. Care should always be taken to keep roads from creating erosion problems. Use current Best Management Practices (BMPs) for erosion control techniques.

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 3

This 44.8 acre pasture has historically been used for grazing and hay production. It is adjacent to a temporary lake and has a sometimes connecting 2.5 acre temporary pond within its boundaries. There is a small 0.7-acre isolated stand of trees within the field. There are also a few scattered planted trees and edges of forest along the north perimeter of this stand. It also borders the forested canopy road zone on the south side. Soil types in this stand include Albany, Lucy, Lynchburg, Orangeburg 2-5% and 5-8% slope. The Lynchburg soil floods during extended wet periods.

The dominate grass is bahia. Some coastal Bermuda, yellow wood sorel, Venus looking glass, black medic, wild geranium, mouse eared chickweed and thistle was also found. The forested island and edges are dominated by water oak, live oak and laurel oak. Other trees found include persimmons, sugar berry, sweetgum, red cedar, elderberry, dogwood and the invasive exotic trees Chinese tallow and Chinaberry. Understory plants include poison ivy, greenbrier, wild grapevine, blackberry, wood sorrel, ragweed, goldenrod, saltbush, American beautyberry, St. Johns wort, the invasive exotic plants Nandina, Chinese privet, tropical soda apple and

Ligustrum.

Since grazing will no longer be used, this field should be managed as a large lawn or as a hay field with the exception of the edges which should be maintained for wildflower meadows.

High traffic/use areas should be maintained as follows. Mow at least once a week during the growing season. Mow at a height of 3 to 4 inches. Never mow more than 1/3 of the height of the grass off at one time. Using proper mowing height and frequency will help keep the grass healthy and as a dominate plant in these fields. Fertilizer will only be advised in high traffic areas. Fertilize according to results provided by using a soil test kit that can be obtained at the University of Florida/Leon County Cooperative Extension Office.

For sections identified needing shorter grass by user groups such as runners, grass can be temporarily cut at the shorter length of 2 inches in rotating strips. Strips should be approximately 3 feet wide and the return interval at the shorter length should not occur in less than four mowing rotations (four weeks minimum). This cutting regime should be monitored and if the grass is not maintaining a vigorous turf, than more rotational strips can be added to reduce the return interval. In addition, if needed, nutrient supplements at rates determined by a soil test, can be added to help the vigor of the turf.

All turf management must follow Green Industries-Best Management Practices.

For low traffic/use areas a less frequent mowing cycle will be used, Grass quality and density should be checked from time to time. If it is desired to continue to produce hay in this field, follow the guidelines as described in the University of Florida publications in the appendix.

It is also recommended that wildflower meadows be established and managed along the edges and fringes of this pasture (see attached map). Note that areas designated by the letter “A” will be natural regeneration for fall blooming meadows and areas designated by the letter “B” will be direct seeding for spring blooming meadows, Contact the Extension office for help on laying out the exact location of these meadows. For directions on how to establish and manage wildflower meadows see appendix. Mowing in meadow areas should be conducted from September to February to avoid disruption of ground nesting species such as turkey, quail and rabbits.

For the areas on the north side of this pasture that connect to more pasture area off the property plant loblolly pine, wax myrtle, yaupon holly, Chickasaw plum, southern crab apple and other native plants that will provide wildlife habitat and a vegetative screen to protect the view from future land use changes such as residential development.

To establish the pine seedlings in these fields, grasses and other herbaceous weeds will need to be controlled by either mechanical or chemical control methods. The mechanical method involves using a scalper prior to planting. Scalping should go along contours to prevent erosion. Scalping should have a width of 2½ feet and be 3 to 4 inches deep.

The chemical method involves planting the pines first and then spraying over the tops of the

pines. Spray Arsenal herbicide at a rate of 7 oz./A plus 4 oz. surfactant or Oust herbicide at a rate of 4 oz./A in 15 gallons of water. Apply the herbicide in four foot wide bands in the spring over the tops of the seedlings.

In January or February plant two to three rows of loblolly pine bare root seedlings on a 10X15 foot spacing. Proper handling and planting is important for success. See the attached brochure on how to properly plant trees. Order the seedlings many months ahead of the planting dates as nurseries often run out of trees in advance of tree planting season. Mulch placed under the trees will help control reinvasion of grass.

The broadleaf plants can be planted after about five years under the loblolly pine. This will give a dense two-stage wall of vegetation.

If desired additional trees can be planted in the island hardwood stand. Trees to plant could be water, laurel and live oaks on drier areas and Shumard oak, Black gum, Sugarberry and Yellow poplar in moister areas.

The invasive exotic plant tropical Soda apple has been found growing on the north side of this stand. It is highly invasive and should be controlled. The only proven control is a program of timely mowing and broadcast treatment and/or spot spraying with herbicide.

The rest of the border forest areas will be managed like the canopy road zone trees. They will provide a buffer and back drop to the large open field as well as corridors and habitat for edge preferring wildlife.

Specific Habitat Recommendations

The pond in this area, which goes dry from time to time, has great ecological significance. Many wildlife species depend on temporary ponds. If the water in this pond were to become permanent, predators such as largemouth bass could successfully survive. Currently only migratory animals such as great blue herons, wood storks and alligators or animals that require the pond condition for only part of their life cycle such as frogs and dragonflies can survive.

Many of these amphibians cannot take the predation of largemouth bass. They are also good feeding areas for many wading birds. Thus temporary ponds are unique and a haven for frogs and certain birds. Therefore, this area should be kept as a temporary pond.

The addition of wood duck boxes could attract wood ducks to this pond. Wood duck boxes should be placed at least 6 feet above the high water level. This will insure that the eggs are not drowned during spring flooding. Boxes should face an area free of limbs and visible from open water if possible. Consideration should also be given to installing predator guards around the post or tree to which the nest box is attached. Predator guards, which exclude raccoons and rat snakes, are essential to providing a secure nesting place. All limbs or vines should be trimmed for several feet around the box.

A final point to remember when placing nest boxes is to locate them at least 100 yards apart with entrances facing away from each other. This separation, for reasons unknown, aids in

reducing the practice of "dump nesting". Dump nesting occurs when 2 or more hen wood ducks lay eggs in the same nest box. The result of this practice is usually a reduction in net production. With up to 40 eggs in the same nest box, only the top 10 to 15 eggs are maintained at warm enough incubation temperatures. Also, many dump nests are never incubated. Construction instructions for wood duck nest boxes are located in appendix on Nest Boxes.

Bluebird boxes are on the northern fence. These should be maintained . Bluebird boxes should be placed 4 to 6 feet above the ground on trees or posts equipped with predator guards. Predator guards, although they do not guarantee safety, can provide a degree of protection from raccoons, house cats, and rat snakes. If placed along the edge of an opening, the entrance of each box should face an open area. It is important to place boxes at least 100 yards apart. This will reduce territorial conflicts between neighboring nesting pairs and make the boxes most effective in raising young bluebirds to fledging. Construction plans for bluebird-type nest boxes are contained in appendix on Nest Boxes.

This is also good habitat for purple martins. Continue to maintain the purple martin housing.

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 4

This 39.9-acre stand is generally in some stage of succession from an old field. The soil type in this stand is Orangeburg with 2-5% and 5-8% slopes. Some areas are dominated by well-spaced mature oaks, other areas are dominated by sapling size pines and others are filled with young sprouts of oaks and weeds. Dominate trees in this stand include live, water, laurel and southern red oaks and shortleaf and loblolly pines. The pines become more common on the east side of this stand. Other trees that were found include red cedar, southern magnolia, devils walking stick, sassafras, eastern dogwood, black cherry, mockernut hickory, winged sumac, Chickasaw plum, sweetgum, post oak, elderberry, wax myrtle and crepe myrtle. Understory and open field plants include American beautyberry, greenbrier, blackberry, bahiagrass, dogfennel, ragweed, wild grape vine, goldenrod, tickseed, lovegrass, broomsedge, jasmine, ebony spleenwort and St. Johns wort. The invasive exotics mimosa, silver buckthorn, Chinese privet, Chinese tallow, tropical soda apple and Ligustrum were also found.

To control fire danger and brush, the pine dominated areas of this stand should be mowed and/or mitigation-mowed on a 2-3 year rotation. Mowing should be conducted from September to February to avoid disruption of ground nesting species such as turkey, quail and rabbits. Take care to avoid damage to the hardwood corridor along the road.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 5

This 5.4-acre stand is mostly open field with trees both singularly and in clumps scattered throughout. There is a narrow band of trees and brush along Miccosukee road. The soil type in this stand is Orangeburg with 2-5% and 5-8% slopes. Bahiagrass is dominate in the open areas. Other understory plants found were goldenrod, vetch, ragweed, blackberry, thistle, American beautyberry, greenbrier, dog fennel, tropical soda apple and long Miccosukee road Japanese honeysuckle. Trees include pecan, live oak, southern red oak, water oak, sugarberry and Chinese tallow. Along Miccosukee road cherry laurel and the invasive exotic tree Chinaberry are found.

To maintain this as an open field continue to mow it and have a vegetative buffer planted on the border of the greenway property as described in Stand 2. In the future it may be desirable to establish wildflower meadows in this stand.

Bluebird boxes are located on the northern fence. These should be maintained as described in Stand 3.

Eliminate Chinaberry trees. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 6

This 3.2-acre stand is an oak savanna. The soil type in this stand is Orangeburg 5-8% slope. Well-spaced live oaks dominate the over story. Other trees present are water, laurel, post and southern red oaks, black cherry, sweetgum and the invasive exotic Chinese tallow. The understory includes strawberry, woods violet, goldenrod, ragweed, American beautyberry, greenbrier, poison ivy, tickseed and the invasive exotics Chinese privet and tropical soda apple.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

To keep the open nature of this stand mow this stand on a regular basis, but allow for occasional reproduction of trees especially live oaks to replace others when they die.

Stand 7

This 2.8-acre area is the forested corridor between stand 8 and Miccosukee road. Trees found in this stand include live, water and laurel oaks, loblolly, longleaf and shortleaf pines, black cherry, cherry laurel, elderberry, hawthorn, sugarberry, sassafras, persimmon, sumac, saltbush, crape myrtle and the invasive exotic trees Chinaberry and mimosa. Understory plants include goldenrod, greenbrier, blackberry, ragweed, broomsedge, wild grapevine, dogfennel and the invasive exotic Ligustrum.

The only management other than that done for all areas in the canopy road zone should be to control the above identified invasive exotic plants. See appendix for control techniques

Bluebird boxes are on the northern fence. These should be maintained as described in Stand 3.

Stand 8

This 49.0-acre pasture has historically been used for grazing and hay production. Soil types in this stand include Orangeburg 2-5% and 5-8% slope. The grass is dominated bahiagrass. There is a sporadic perimeter in some places of trees and shrubs.

The open space has many recreational uses as described in Stand 3. This field also provides an excellent view for passing motorists on both I-10 and Miccosukee road.

It will be necessary to decide if and for how long this field should be managed for hay or lawn. In either case manage this open field as described in Stand 3.

Establish wildflower meadows as shown on the stand map and as described in the appendix and Stand 3. The wildflower meadows can also be useful as habitat for the Eastern meadowlark.

Bluebird boxes are located on the northern fence. These should be maintained as described in Stand 3.

This is also good habitat for purple martins. Continue to maintain the purple martin housing.

The east side of the pasture should have a vegetative screen established as described in the previous Stand 3.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 9

This upland hardwood stand is divided into two separate areas by stand 10 and 11. The acreage of these two areas is 5.4 and 22.4. Soil types are Blanton, Ocilla and Orangeburg 2-5% slope. Trees include live, southern red, post, water and laurel oak, mockernut hickory, loblolly, shortleaf, longleaf and spruce pines, black cherry, sweetgum, cherry laurel, tree sparkleberry, yaupon holly, Chickasaw plum, wax myrtle, winged sumac and eastern dogwood. Understory species include, greenbrier, wild grape vine, Carolina Jessamine, partridgeberry and ebony spleenwort. Also found was the invasive exotic plants Chinaberry, Chinese privet, Japanese climbing fern, silver buckthorn and Japanese honeysuckle.

Oaks are the dominate trees in this stand. Small areas are dominated by pine. This stand most closely resembles an upland hardwood forest as described in "Guide to The Natural Communities of Florida."

This forest should *not* be burned. Preserve all snags where they are not a hazard.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 10

This stand is a floodplain forest that is 2.0 acres and occurs on the Pelham soil type. An intermittent stream flows through the property. The dominate trees are red maple and laurel oak. Live oak, sweetgum, loblolly pine, water oak, persimmons, black gum, American holly, Ti-ti and the invasive exotic Chinese tallow are also found in this stand. Other plants found were wild grape vine, greenbrier, trumpet creeper and woods fern.

This stand most closely resembles a bottomland forest as described in "Guide to The Natural Communities of Florida" (appendix).

This stand has high esthetic value with its colorful red maple trees. Floodplain hardwoods

associated with the intermittent stream will be maintained as natural communities to ensure their aesthetic and water quality and quantity control values. These communities will be maintained by natural water fluctuation.

Control Chinese tallow and other exotics. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 11

North of stand 10 is a 2.5 acre open field. The intermittent stream has been channelized into a drainage ditch. Soil types include Ocilla and Pelham. Plants found in this field include coastal Bermuda, dogfennel, aster, coastal broomsedge, passion vine, various other grasses and some shortleaf pine regeneration.

Continue to let this stand succeed into forest and become part of stand 9.

In the future it may be desirable to establish wildflower meadows in this stand as described in Stand 3 and the appendix.

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 12

This stand is three separate planted loblolly pine areas with sapling size trees. Their sizes are 0.1, 0.5 and 0.5 acres. Soil types are Blanton and Orangeburg 2-5% slope. Loblolly pine is obviously the dominant plant. The understory is often absent because of thick pine needles and heavy shade. Scattered through the stand are blackberry, ebony spleenwort and laurel oak., Goldenrod saltbush, ragweed, bahiagrass, dogfennel and tickseed can be found In small openings or on the edges.

These pine stands were planted in areas that were pasture. These trees were planted at densities that reflect the intention of thinning them for pulpwood when 15 years old. The small size of these stands and the poor access to them now makes that difficult and thus not very economical. Options for now include thinning them out by cutting or girdling to kill some of them or leaving them as is to thin themselves out. The second option would of course stunt their growth and make them more susceptible to insect, disease and wildfire damage.

Stand 13

These are six fields on the south side of the greenway that are 1.7, 13.4, 11.6, 1.1 and 3.5 acres in size. The soil type is Orangeburg with 2-5 and 5-8% slopes.

Plants include sand spurs, bahiagrass, goldenrod, love grass, broomsedge, shortleaf pine, sumac, laurel oak, dotted horse mint, golden aster, blue mist, blazing star, saltbush, oxalis, pokeweed, blackberry, vetch, dogfennel and Bermuda grass. Also found, were the invasive exotic plants kudzu, crotalaria, Johnson grass and Japanese climbing fern.

In some areas shortleaf pines are invading the fields. To counter this pine invasion, mow, burn and/or graze these fields on an annual basis to maintain as a tall grass meadow. This will

benefit many species of wildlife.

Kudzu has invaded large areas of these fields. Kudzu control techniques can be found in the the Canopy Road section found latter in this plan.

This area has kudzu that grows into the Miccosukee canopy road zone and stand A. There are also many Chinaberry trees and only a few other mature native trees. An option would be to prescribe burn under hot conditions to kill back the Chinaberry and kudzu and then follow up with herbicide and/or grazing. This area could then be maintained as a vista from the road by prescribed fire and/or mowing. Note that this type of burning may kill some of the established native trees but could be considered as an acceptable loss. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

The edge of these fields should have a vegetative buffer planted on the south boarder of the greenway property. These borders will also provide more edge and travel corridors for wildlife.

The rest of the fields should be maintained as meadows for wildlife. Mowed paths could be maintained through the fields. In the future it may be desirable to establish wildflower meadows in this stand.

Bluebird boxes are on the northern fence. These should be maintained as described in Stand 3.

Stand 14

Bisecting and bordering the open fields are strands of forest. The acreage of these strands are 10.8, 0.5 and 0.3. Soil types include mostly Orangeburg 2-5 and 5-8% slopes and a small amount of Wagram. Trees present include loblolly and shortleaf pines, water oak, live oak, laurel oak, southern red oak, mockernut hickory, black cherry, sweetgum, cherry laurel, elderberry, sugarberry, dogwood, winged sumac and Chickasaw plum. Understory plants included broom sedge, greenbrier, partridgeberry, blackberry, ebony spleenwort, coral bean, blue mist, goldenrod, Jessamine, American beautyberry. Also found, were the invasive exotic plant mimosa, kudzu and Japanese honeysuckle.

Prescribe burn if convenient.

For access roads on this field, it is recommended that they be kept to the perimeter of the field. This will help with the aesthetic quality of the viewshed. Care should always be taken to keep the roads form creating erosion problems. See Best Management Practices (BMP's) in the appendix for erosion control techniques.

Stand 15

This stand is a 11.0-acre upland hardwood stand. Soil types include Wagram and Orangeburg 2-5 and 5-8% slopes. Common trees include loblolly and shortleaf pines, live, southern red, water and laurel oak, mockernut hickory, black cherry, cherry laurel and eastern dogwood.

Understory species include, greenbrier, Carolina Jessamine, bracken fern ebony spleenwort and grapevine. Also found, was the invasive exotic plant silver buckthorn. Soil types include Wagram and Orangeburg 2-5 and 5-8% slopes.

This stand most closely resembles a upland hardwood forest as described in the *Guide to The Natural Communities of Florida*. This forest should not be burned. Preserve all snags where they are not a hazard.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 16

This stand is a 1.1-acre pine stand. The soil type is Wagram. Loblolly and shortleaf pine are the dominate overstory trees. They have been thinned in the past to a seed tree density. The understory is thick and generally "head high." Southern red oak, laurel oak and mockernut hickory are common in the understory. Blackberry, greenbrier and St, Johns wort also are in the understory.

This stand most closely resembles a upland pine forest as described in the "Guide to The Natural Communities of Florida" (appendix).

Probably because of the isolated nature of this stand it has not been burned frequently enough to continue maintaining this as a pine stand. A decision should be made if this stand is to be converted into a hardwood stand or pine. If this stand is allowed to convert, burn it along with stand 11. If not, this stand should be burned on a 2-3 year rotation. The first burn should occur in winter. Subsequent burns should occur in the spring or early summer. Firelines should be established and maintained around this stand.

Stand 17

This stand is a 45.6-acre upland hickory-oak-pine forest stand. Soil types include Wagram and Orangeburg 2-5 and 5-8% slopes. Dominant trees are mockernut hickory, post oak, southern red oak, black oak, and shortleaf pine. Other trees found in the stand include loblolly pine, Chickasaw plum, black gum, eastern dogwood, water oak, laurel oak, basswood, rusty black-haw, sweetgum, sassafras, white oak, sugarberry, red buckeye, Florida chinquapin, fringe tree, hawthorn, southern crabapple, red mulberry, wax myrtle, black cherry and winged sumac. Understory plants include pawpaw, sensitive vine, wild grape vine, Virginia creeper, greenbrier, morning glory, blue eyed grass, purple phlox, lyre-leaved sage, woods violet, milkweed, poison ivy, Panicum spp., stinging nettle, blackberry, runner oak, goldenrod, American beautyberry, bracken fern, blue mist, snake root, butterfly pea, golden aster, bahiagrass, coral bean, ebony spleenwort, squaw root and skull cap.

This stand most closely resembles a upland hardwood forest as described in "Guide to The Natural Communities of Florida" (appendix). Detailed examination of the text shows that this upland hardwood forest has a different species composition than the one described. This community appears to be unusual in its composition. The "Notes on the History of the North Florida Red Oak Woods" (Platt and Schwartz, 1990) describes an upland forest found in North Florida that is considered to be a "high hammock zone between upslope sand/clay hills and midslope hammock . . . in which low intensity fires occur every one to two decade." This document also references accounts by observers in the early 1900s who listed typical high hammock species in the Tallahassee Red Hills as shortleaf pine, southern red oak, post oak, black oak, eastern dogwood and mockernut hickory. Further reference is made in this document to the fact that this type of forest has suffered a fate similar to the longleaf wiregrass plant community, which has been reduced to an estimated 3 percent of its former distribution. The fact that high hammock forest community grows on fertile upland soil explains the

motivation for native Americans and European settlers alike to convert such forests to cultivated fields. The Miccosukee Greenway thus has an enviable opportunity to conserve and showcase this now-rare community.

This stand has likely been burned and logged in the last few decades. It is questionable if this site had been farmed in a long time, if ever. From an ecological perspective it is believed that fire has played a role in establishing and maintaining this upland species association that is referenced in early descriptions of the North Florida landscape. Observations made by botanist of this high hammock community during the fire suppression decades of the early 1900s chronicle bottomland hardwood invasion of the pine-oak-hickory woods, particularly by loblolly pine, water oak and diamond leaf (laurel) oak.

Prescribe burn this stand on something varying around a 3-year burn interval. Time of year for prescribed burning should vary as when managing other pine/hardwood stands. This stand should be closely studied as to changes in species composition, abundance and size. This prescribed fire recommendation is based on information provided by Kevin Robertson, Ph.D., Fire Ecology Research Scientist at Tall Timbers Research Station. References supporting his position is included in the appendix.

Stand 18

This stand consists of 2.4-acre and 1.8-acre units of upland loblolly pine-sweetgum woodlands. The soil type is Orangeburg with a 2-5% slope. Besides the dominate loblolly pine and co-dominate sweetgum the trees water oak, Devils walking stick, sugarberry, cheery laurel and elderberry were found in this stand. The invasive exotic trees Chinaberry and Tung oil were also found. Understory plants included American beautyberry, greenbrier, ebony spleen wort, trumpet creeper, poison ivy and the invasive exotics Japanese climbing fern and Japanese honeysuckle.

Densities are high in this sapling size stand. To reduce densities, reduce the fire hazard and increase forage for wildlife, control burning should be done on a 2-3 year rotation. Do the first burns in January-March. Following burns can be done in January-March or April and May if weather conditions are right.

Within this stand there is an old house site. At this site the plant community has been greatly altered by human activity. Species of trees found on this site are dogwood, red cedar, sugarberry, black cherry, sweetgum, laurel oak, black walnut and the invasive exotics Chinaberry and tung-tree. Other plants included grapevine, greenbrier, ebony spleenwort and the invasive exotic plant Japanese honeysuckle.

This old house site area would make a good location for a wildflower opening. It is already very disturbed by human activity. This would involve opening the site up by removing and killing both trees and ground cover plants. To do this have a forester mark the trees to remove. Then cut and herbicide stumps of trees to kill them. The following fall harrow the site and establish wildflowers as described in the appendix.

Manage any invasive exotics plants. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 19

This stand is 82.3 acres. Soil types include Albany, Lucy, Norfolk, and Orangeburg 2-5 and 5-8% slopes. Species of trees found include water oak, loblolly and shortleaf pine, sweetgum, American holly, live oak dogwood, tree sparkleberry, wax myrtle, southern red oak, sumac, American beech and red maple. Understory plants include greenbrier, trumpet creeper vine, American beautyberry, blackberry, coral bean, partridgeberry, resurrection fern, crotalaria, pokeweed, evening primrose, pawpaw, poison ivy, dogfennel, butterfly pea, white aster, blackberry, deer moss, golden aster, Indian pipe and horse mint. The invasive exotics Tung oil, mimosa, silver buckthorn and Japanese climbing fern were also found.

Within this stand there is an old house site. At this site the plant community has been greatly altered by human activity. Species of trees found on this site are dogwood, red cedar, sugarberry, black cherry, sweetgum, laurel oak, black walnut and the invasive exotics Chinaberry and Tung-tree. Other plants included grapevine, greenbrier, ebony spleenwort and the invasive exotic plant Japanese honeysuckle.

The old house site area would make a good location for a wildflower opening. It is already disturbed by human activity. This would involve opening up the site by removing and killing both trees and ground cover plants. A forester should mark the trees to be removed. The stumps of trees should be treated with herbicide to kill them. The following fall, the site should be harrowed to establish wildflowers.

Kudzu has invaded the south east corner of Stand 19. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

This stand should be prescribe burned on a 2-3 year rotation. The first burn should be in the cool winter months. Later burns should be done in the spring and winter. Leave a buffer strip 30-50 feet wide along the east side (the side that borders the subdivision) of this stand.

Stand 20

This 53.4 acre stand is an upland pine-oak-hickory forest. It occurs on the Orangeburg and Norfolk soil types. Shortleaf and loblolly pine are the dominate overstory trees. There are a few slash and longleaf pines. Hardwoods present include water oak, live oak, laurel oak, southern red oak, post oak, mockernut hickory, black cherry, sweetgum, mimosa, Southern magnolia, sassafras, Chinaberry, American holly, tree sparkleberry, winged sumac, waxy myrtle, persimmon, red maple and Chickasaw plum.

Understory plants included broomsedge, greenbrier, St. Johns wort, chalky bluestem, partridgeberry, pokeweed, ragweed, crotalaria, blackberry, spleenwort, goldenrod, coral bean,

blue mist, American beautyberry, butterfly-weed, milkweed, phlox, trumpet creeper, Japanese climbing fern, bahiagrass, dotted horse mint and Chinese wisteria.

This stand most closely resembles a upland pine forest as described in "Guide to The Natural Communities of Florida" (appendix).

This stand has been managed in the past for quail and timber production. In recent times the area was logged to what is known as a seed tree cut. This has resulted in a very low density of mature trees. The low density of mature trees has resulted in much sunlight reaching the vegetation at the ground level. Natural regeneration of pines has already started and appears adequate in most areas. Hardwoods have also sprouted up and are very dense in some areas, and there is a well-developed herbaceous layer. This area was most likely a mixed pine-hardwood stand prior to human cultivation. Both longleaf pine and wiregrass were probably previously abundant in this stand prior to cultivation and fire suppression.

To maintain and return this stand to a more "natural state" four things must occur:

1. Fire should continue to occur on a 2-3 year rotation. This will create frequent low intensity fires that will favor an open pine-oak hickory forest that will be dominated by pines. Traditionally the plantations burned in the late winter. Fires should be expanded to year round with the majority occurring in April, May and June.
2. Young pine tree densities should be increased to approximately 300 trees per acre. This density should be variable. This could be accomplished by using the natural regeneration process already in process and by planting pines.
3. Longleaf pine and wiregrass should be reestablished. Planting longleaf in open areas in concert with some type of herbaceous competition control could be used to increase the densities.
4. Control invasive exotics.

Natural regeneration of pines is occurring on this stand. The process of natural regeneration can be summarized below. Currently this stand is at steps 6 and 7.

1. <u>Selecting seed trees</u>. Before the site is logged, seed trees must be selected and marked with paint. Selection means choosing the best-looking trees for seed trees -- trees which are the straightest and tallest and have large crowns (lots of green needles) and no disease.

   The number to leave on the site will vary according to species (see Table 2). More seed trees are required for longleaf pine because it is not a prolific seed producer and its large seeds are often eaten by animals (Williston and Balmer 1974). Trees should be well-spaced over the site to allow even distribution of seed.

2. <u>Planning for a good seed crop</u>. The frequency of good seed crops varies from year to year and species to species (Table 1). To insure successful natural regeneration, the site should be logged just prior to a good seed crop. You can observe the seed crop by looking through binoculars in the spring or early summer and counting cones to

determine the crop for the fall or looking at conelets to predict next year's crop. Conelets resemble small pink or light green cones and are located near the ends of the branches; cones are green and are located further in on the branches. Both conelets and cones are in the top 2/3 of the tree crown.

3. Logging. The landowner should supervise the logging operation especially to insure that the seed trees are not damaged by the logging. Damaged trees may die or not produce a good seed crop.
4. Prepare the site. The site must be prepared to first incorporate the forest litter (organic matter) and then expose mineral soil -- seeds need soil to germinate and grow. Some site preparation options are to burn, mechanically scarify, and/or spray with herbicides (see Fact Sheet FOR-37, Site Preparation: Alternatives for Plantation Establishment, Jack et al 1984 and Special Series FOR-10, Vegetation Management in Florida's Private Non-industrial Forests, Campbell and Long 1995). The soil needs to be exposed prior to October, when most seeds fall from the trees. Sometimes the logging operation is enough of a disturbance to expose the soil. However, the completeness and intensity of the site preparation may improve seedling establishment especially during periods of poor seed crop or drought (Lohrey and Jones 1983).
5. Log remaining trees. When an adequate seedling stand is established (e.g., at least 500 trees per acre) and the seedlings are 1-2 years old, the seed trees should be harvested (Boyer 1979). If this harvesting is delayed, seed trees may affect the growth of the seedlings and logging may damage the seedlings. For longleaf pine the seed trees may be left. If necessary, hand-plant areas that don’t achieve sufficient regeneration.
6. Control unwanted vegetation. Shrubs, small trees, and herbaceous vegetation will compete with small seedlings for nutrients, water, and sunlight causing mortality or slower growth. For the first few years, the planting site should be observed to see if this unwanted vegetation is affecting seedling growth and survival and measures should be taken to control the weeds. Chemical control, hand-cutting, and mowing are three possible methods of control.
7. Prescribe burn. It will not be possible to burn until the pine regeneration gets tall enough to survive a fire, unless a heavy regeneration of longleaf pine occurs and want only longleaf to survive. Longleaf pine seedlings can survive fire when in the grass stage and then again after they average six feet in height. When other pine species reach approximately 25 feet tall, have a forester check to see if prescribed burning can begin. Burn as described above.

Table 2: Minimum number of seed trees to leave for natural regeneration and the frequency of seed crops for each pine species.[b]

Pine Species	Number of Seed Trees to Leave per acre				Frequency of Seed Crop (yrs.)
	Diameter of seed tree (inches)				
	10	12	14	16+	
Slash	12	9	6	4	every 3 years
Loblolly	12	9	6	4	every 1-3 years
Longleaf	55	38	28	21	every 3-5 years

The objective is to control hardwoods with fire but to keep fire out long enough so that the regenerated pines survive and increase densities. Based on this, a cool winter prescribed fire is recommended first. Follow this fire in 2-3 years with other cautious fires.

To replant areas where pine seedling densities are low bare root or tubling longleaf pine seedlings can be used. To get them to survive, adjacent herbaceous and hardwood vegetation will need to be controlled. This can best be accomplished by burning the site, planting the seedlings and then spot spraying with a herbicide over the tops of newly planted seedlings in the spring. Spray 7 oz./acre of Arsenal herbicide in the spring over the tops of the seedlings. Failure to do this will result in high mortality rates and for those trees that survive, an extended period in the grass stage (up to 20 years as opposed to 2-3 years). Plant the longleaf pine on the upland areas in early December at a rate of 450 trees per acre. This will be approximately a 9X10 foot spacing. Research has shown that longleaf pine does most of its root growth in November and December. The best survival rates and growth has occurred when trees were planted in early December after the winter rains begin.

Have a forester reevaluate the property in five years to determine the need for future forestry needs. Before burning, seek authorization from the FFF and contact the Leon County Department of Development Support & Environmental Management before beginning any work on site except prescribe burning and fireline plowing. All operations must comply with Section 208 of the Federal Water Pollution Control Act Best Management Practices. Current Water Management District policy for BMP's directs any and all enforcement proceedings against the landowner.

Control invasive exotics. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Stand 21

[b] Williston and Balmer, 1974.

This is a drainage way that is 7.8 acres and occurs in the Plummer soil type. Trees found in this stand include black gum, sweetgum, loblolly bay, mockernut hickory, loblolly pine, titi, red maple, laurel oak, American holly, live oak, black cherry, tree sparkleberry, wax myrtle, white oak, eastern dogwood and water oak. Understory plants included grasses, greenbrier, trumpet creeper, wild grapevine, poison ivy, blackberry, partridgeberry, St. Johns wort and the invasive exotics Japanese climbing fern and silver buckthorn. The mockernut hickories, white oaks and dogwoods generally occurred on drier areas on the very edge of this stand. Grasses were very common in the understory. Titi was often found in scattered dense thickets.

This stand most closely resembles a bottomland forest as described in "Guide to The Natural Communities of Florida" (appendix).

Control invasive exotics. Management techniques for invasive exotic plants specific to Florida can be found in the appendix or through the Florida Exotic Pest Plant Council (http://www.fleppc.org).

Canopy Road Zone

The Canopy Road Protection Zone is a regulated zone 100 feet from the centerline to either side of the road that was designated to protect the historical significance of the road and the canopy trees and understory native vegetation. Current management includes tree trimming and dead tree removal for safety and some tree planting to maintain the tree canopy. This forested corridor is generally hardwood dominated. Prescribed fire, was until recently, a common vegetation management technique used in the canopy road zone. Now fire is kept out of the area west of I-10. This area includes all the soil types listed in the soils section of the plan except the Norfolk soil with a 5-8% slope and the Orangeburg with a slope of 8-12%. Trees include water, live, laurel, southern red and post oaks, mockernut hickory, pecan, black cherry, cherry laurel, sweetgum, shortleaf, longleaf and loblolly pines, southern magnolia, black gum, sugarberry, sassafras, eastern dogwood, red cedar, hawthorn, American holly, red maple, tree sparkleberry, winged sumac, red elderberry, wax myrtle, persimmon, southern crab apple, Chickasaw plum and the invasive exotic trees Chinaberry, mimosa, tung oil tree and Chinese tallow. Understory plants include American beautyberry, wild grapevine, greenbrier, Virginia creeper, pepper vine, Carolina Jessamine, ragweed, ebony spleenwort, aster, blue mist, coral bean, partridgeberry, blackberry, and the invasive exotic plants lugustrum, kudzu, Chinese privet, bahiagrass and silver buckthorn.

This protected area provides historic and aesthetic values to the community. West of I-10, where it has not already, it will be allowed to naturally succeed without prescribed burning into an oak dominated hardwood forest. East of I-10 fire, will be used on upland sites to promote historic viewscapes. Note, fire can damage trees and special care should be taken to remove trees that become a hazardous along the road from fire damage. Only native plants will be

encouraged. Pruning and tree removal will continue where necessary for safety on the road and for powerlines. Invasive exotic plants will be controlled and eliminated.

For control of Chinese tallow see the appendix or the Florida Exotic Pest Plant Council web page at (http://www.fleppc.org).

Kudzu has continued to invade the property along the south side of Miccosukee road. Kudzu is a very tenacious weed that is extremely difficult to control and if left unchecked will only get worse. Control methods include mowing, grazing, burning and herbicide. Burning will not control kudzu but when used with other methods, it can help. Mowing will work if the kudzu is mowed repeatedly over a couple of years like a lawn. Grazing can be used to reduce and exhaust the kudzu which can then be killed with repeated spot applications of herbicide.

Glyphosate, chlopyralid (Transline), metsulfuron (Escort) and aminopyralid (Milestone VM) can be used to control kudzu. Follow label directions and precautions.

Glyphosate (5% solution) can be an effective option for small stands growing up poles or fences in residential areas. However, glyphosate is weak on kudzu and repeat applications will be necessary. Likewise, clopyralid (Transline) is effective on young stands were kudzu is not well established. Clopyralid (21 fl. oz/A or 0.5% solution) is more effective than glyphosate and is safe to apply near trees, but can only be used in selected north Florida counties (see Transline label for specifications). Metsulfuron (Escort 4 oz/A) and aminopyralid (Milestone VM 7 fl. oz/A) are highly effective on kudzu and commonly approach 100% control. Metsulfuron may cause damage to selected hardwoods if applied over the rootzone.

TIMETABLE OF MANAGEMENT RECOMMENDATIONS

Stand	Timetable	Action
1	Periodically	Mow and/or mitigation-mow (bush-hog) on a two to three year rotation
	Always	Control invasive exotics
2	Annually	Maintain bluebird nest boxes
	As needed	Mow grass
	Always	Control invasive exotics
3	Annually	Maintain bluebird and purple martin nest boxes
	Annually	Evaluate need to plant loblolly pine seedlings for vegetative screen
	Annually	Evaluate need to plant broadleaf seedlings for vegetative screen

Stand	Timetable	Action
	Annually	Evaluate wildflower management results
	As needed	Mow grass
	Always	Control invasive exotic plants
4	Periodically	Mow and/or mitigation-mow on a two to three year rotation
	Always	Control invasive exotics
5	Annually	Maintain bluebird nest boxes
	As needed	Mow grass
	Always	Control invasive exotics
6	Annually	Mow the stand
	Always	Control invasive exotics
7	Always	Control invasive exotics
8	Annually	Maintain bluebird and purple martin nest boxes
	Annually	Evaluate need to plant loblolly pine seedlings for vegetative screen
	Annually	Evaluate need to plant broadleaf seedlings for vegetative screen
	As needed	Mow grass or harvest hay
	Annually	Evaluate wildflower management results and effectiveness of Eastern Meadowlark habitat
	Always	Control invasive exotics
9	Always	Control invasive exotics
10	Always	Control invasive exotics
11	Always	Continue to let forest succession convert this stand into becoming part of stand 9
12	2012-2014	Thin stand
13	Annually	Complete successional disking and planting of wildlife food plots
	Always	Control invasive exotics
14	Always	Control invasive exotics
15	Every 2-3 years	Prescribe burn
	Always	Control invasive exotics

Stand	Timetable	Action
16	Every 2-3 years	Prescribe burn
17	Every 2-3 years	Prescribe burn
18	Every 2-3 years	Prescribe burn
	Always	Control invasive exotics
19	Every 2-3 years	Prescribe burn
	Always	Control invasive exotics
20	Every 2-3 years	Prescribe burn
	Eventually	Plant longleaf pines
	Always	Control invasive exotics
21	Every 2-3 years	Prescribe burn
	Always	Control invasive exotics
All Stands	Annually	Establish and/or maintain firelines during the winter

STAND MAP SUMMARY

STAND 1	Upland Pine-Oak-Hickory Forest	68.2 acres	13.6%
STAND 2	Open Fields (north)	8.2 acres	1.6%
STAND 3	Open Field	44.8 acres	8.9%
STAND 4	Upland Oak-Pine Forest	39.9 acres	7.9%
STAND 5	Church Field	5.4 acres	1.1%
STAND 6	Live Oak Savanna	3.2 acres	0.6%
STAND 7	Canopy South of Field	8 2.8 acres	0.6%
STAND 8	Open Field	49.0 acre	9.7%
STAND 9	Two Separate Upland Hardwood	27.8 acres	5.5%
STAND 1	0Floodplain Forest	2.0 acres	0.4%
STAND 11	Open Field	2.5 acres	0.5%
STAND 12	Planted Loblolly	1.0 acres	0.2%
STAND 13	Open Fields (south)	31.3 acres	6.2%
STAND 14	Forest Edges	11.6 acres	2.3%
STAND 15	Upland Hardwood Stand	11.0 acres	2.2%
STAND 16	Pine Stand	1.1 acres	0.2%
STAND 17	Upland Hickory-Oak-Pine Forest	45.6 acres	9.1%
STAND 18	Upland Loblolly-Sweetgum Forest	4.2 acres	0.8%
STAND 19	Upland Oak-Pine Forest	82.3 acres	16.4%
STAND 20	Upland Pine-Oak-Hickory Forest	53.4 acres	10.6%
STAND 21	Floodplain Forest	7.8 acres	1.6%
			Total 503.4 acres

WILDFLOWER MEADOWS

Historically, Florida's landscape was awash with color from spring through fall. Fire-maintained pinelands, fallow agricultural fields, and marshy areas around lakes and rivers produced an abundance of bunch grasses and flowering forbs. Even though much of this legacy has been lost due to the rapid urbanization of the state, it is possible to reclaim some of Florida's colorful past in and around the places where people live, work, and play. Some of the benefits of growing wildflowers and native grasses include: enhanced recreational and educational experiences for children, more songbirds, butterflies and other wildlife, and the restoration of a special sense of natural history close to home.

To successfully establish and manage wildflowers and native grasses in meadow-like groupings, it's helpful to consider how they grow in their natural habitats. Although wildflowers bloom just about all year long in the Red Hills Region, there are two major blooming periods, each characterized by a particular pattern of growth.

Spring/Early Summer

In the spring and early summer the showy, sun-loving annuals and perennials such as blanket flower, lance-leaf coreopsis and black-eyed Susan, are common in the Red Hills, especially along state roads where they have been planted by FDOT. Showy evening primrose, Drummond phlox lyre-leaf sage, spiderwort and butterfly weed are also commonly observed. The height of this plant community varies from one to three feet.

Late Summer/Fall

During the late summer and fall, the dominant wildflowers of the upland pine and oldfield communities are tall perennials (three to four feet) such as blazing star, goldenrod, aster, Eupatoriums, and agalinis. These are tough plants which intermingle with native bunch grasses such as Indian grass, lop-sided Indian grass, broomsedge, split-beard bluestem, little bluestem, switch grass, and plume grass. The grasses support the tall, lanky wildflowers and provide interesting textures and beautiful russet, tan and golden hues.

<u>Establishment Methods</u>

Of the three common meadow establishment methods -- planting seedlings, direct seeding, and natural regeneration -- the latter two are recommended for meadow areas in the Greenway. The planting of seedlings is cost prohibitive in all but the smallest areas.

Natural Regeneration for Fall Blooming Meadows

Natural regeneration relies on existing native grasses and wildflowers in the area as seed sources. This method would be most appropriate for establishing old field and fall blooming communities. Broomsedge, little bluestem, Indian grass, goldenrod, blazing star, and asters are

common in greenway fields and should increase in numbers under a favorable management regime. Existing pasture areas are simply released from mowing and grazing. Mowing and/or burning can then be timed to favor the reproduction of desired vegetation. Because intensive site preparation is not required for this method, the initial establishment costs are lower than the other methods. If, after a few years, natural regeneration doesn't produce the diversity of desired species, direct seeding and planting of seedlings can be implemented in selected areas to create reliable seed sources.

Procedures

First year

1. Mow existing pasture grasses in September. Scalp the area using the lowest possible cutting height.
2. Remove cuttings to reduce the fertility of the site.
3. Lightly harrow (to expose mineral soil) when surrounding native grasses and wildflowers begin to go to seed. This usually occurs during the month of October and into early November.
4. Mow the area again in June. Mow no lower than 8 to 10 inches so as not to disturb the crowns of new forb and grass seedlings. A flail mower is very effective for controlling the height of the cut.
5. Remove the cuttings.

Second Year

1. Mow the area in June. Mow no lower than 8 to 10 inches.
2. Remove the cuttings.

Third Year

Repeat Second Year Steps.

Long-Term Management for Fall Blooming Meadows

During the fourth year, assess the species diversity of meadow areas and revise the management plan, if necessary, to include direct seeding and seedling planting of desirable species that have not become established from surrounding seed sources (contact the Leon County Extension Service for more information about these methods).

Continue to implement the Second Year Steps as listed above, if effective, or revise the mowing schedule to address the particular conditions and circumstances of each site. For instance, some meadow units may benefit from two cuttings per year rather than one, while other units might benefit by cutting once every second or third year. This is also a good time to consider the use of other management techniques such as controlled burning and selective herbiciding. Factors to consider include: effects on species diversity, environmental impacts, and costs.

Direct Seeding for Spring Blooming Meadows

Because naturally occurring stands of spring blooming wildflowers are uncommon in the greenway it is recommended that these communities be established by direct seeding. Currently, there are no suppliers of Florida grown wildflower seed so suppliers will have to be found in other states (see list of suppliers in the "Wildflowers in Florida" booklet in the appendix). Recommended species for Greenway planting include: blanket flower (*Gaillardia pulchella*), black-eyed Susan (*Rudbeckia hirta*), lance-leafed coreopsis (*Coreopsis lanceolata*), tickseed (*Coreopsis tinctoria*), drummond phlox *(Phlox drummondii*), and showy evening primrose (*Oenothera speciosa*). Given the soil type and square footage of the planting areas, the seed supplier will formulate the above species mix and provide seeding rates.

<u>Procedures</u>

Site preparation

1. Herbicide the area in early August with glyphosate and let sit for one month.
2. Scalp the area with a mower to one inch and remove the cuttings.
3. Let the area sit for one month, allowing weed seeds to germinate.
4. Apply herbicide again.
5. Allow the area to sit until ready to plant.

Planting

The recommended planting period for North Florida is late November through December).

1. Lightly scarify the area by scalping with a mower to 1 inch or by dragging a section of chain-link fence.
2. Broadcast seed (at the rate recommended by the seed supplier) evenly over the area.
3. Obtain good seed soil contact by lightly raking or by dragging with a section of chain link fence. Rolling the area with a sod roller is highly recommended for maximum seed soil contact. With adequate rainfall, seeds will begin to germinate within 30 to 60 days. Most wildflowers will bloom the first spring after planting. The annuals will be the first to bloom with the perennial coming on shortly after. The peak blooming season is in April and May with secondary blooming continuing throughout the summer months.

Follow up maintenance

1. Spring blooming meadows can be mowed after peak bloom when seeds have matured. This will dispense seeds throughout the area. Mow no lower than 8 to 10 inches so as not to disturb the crowns of established plants.
2. Mow the area again in late winter (late February or early March).
3. Remove the cuttings.

Long term management of spring blooming meadows

Due to the unreliable seed production and seed viability of non-Florida ecotypes, spring blooming meadows planted with wildflower seed from out of state suppliers tend to be ephemeral in nature and may have to be replanted every third or fourth year. Follow the instructions for steps 1 through 4 as necessary. Replant with native Florida ecotypes if possible.

Eastern Meadowlark: Habitat Development and Access Management Plan

The eastern meadowlark is a medium sized native songbird of American grasslands. It displays a brilliant yellow breast with a large black V in the center. In flight it is dark brown with flashing white feathers at the sides of the tail. It sings an attractive song from elevated perches in the spring and summer.

This plan has two goals. The first is to foster habitat in the Greenway system that will allow the eastern meadowlark to overwinter, and eventually breed, in the Greenways. The second is to create access to meadowlark areas for a wide range of individuals, especially those for whom long distance walking or bicycling is not possible. Families with young children, older individuals, or anyone with reduced mobility will benefit from this approach.

The first goal can be achieved by creating meadowlark habitat through mowing schedule manipulation. Meadowlarks require areas of predominantly grassy cover with a very low incidence of other plants, including broadleaf forbs, shrubs, and trees. The ideal grass height is 10 to 20 inches. The minimum preferred size of the area is 10 to 20 acres. However, larger acreage is needed to sustain viable populations.

The preferred grass height for overwintering can be achieved by performing the final mowing of the year in August or early September. Additionally, by leaving some areas un-mowed until the middle of July the following season, breeding by meadowlarks can be encouraged. Meadowlarks are known to breed in adjoining counties in Florida, but not in Leon County. Another native bird that will benefit from this regime is the loggerhead shrike.

The second goal of this plan can be achieved by creating these managed areas close to parking areas in the Greenways. Creating suitable habitat throughout the Greenways will benefit the meadowlark, whose numbers have been diminishing over the last few decades. Creating habitat close to trailheads will allow enjoyment of this avian resource by the largest spectrum of users.

Sources:

Habitat Suitability Index Models: Eastern Meadowlark
U.S. Fish and Wildlife Service

Landowner's Guide: Grassland Birds
Michigan Department of Natural Resources

Florida Fish and Wildlife Conservation Commission

Commissioners
Rodney Barreto
Chair
Miami

Richard A. Corbett
Vice-Chair
Tampa

Kathy Barco
Jacksonville

Ronald M. Bergeron
Fort Lauderdale

Dwight Stephenson
Delray Beach

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Winter Park

Brian S. Yablonski
Tallahassee

Executive Staff
Nick Wiley
Executive Director

Greg Holder
Assistant Executive Director

Karen Ventimiglia
Deputy Chief of Staff

Gil McRae
FWRI Director
(727) 896-8626
(727) 823-0166 FAX

Fish and Wildlife Research Institute
Information Science and Management
(850) 488-0588
(850) 410-5269

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Fish and Wildlife Research Institute
620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 410-0656

Hearing/speech impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com/research

June 8, 2011

Ms. Robin Turner
Office of Greenways and Trails
3900 Commonwealth Blvd.
Tallahassee, Florida 32399-3000

Dear Ms. Turner:

This letter is in response to your request for listed species occurrence records and critical habitats for your project (Miccosukee Canopy Road Greenway) located in Leon County, Florida. Records from The Florida Fish and Wildlife Conservation Commission's database indicate that listed species occurrence data are located within the project area. Enclosed are 8.5 x 11 maps showing listed species locations, SHCA's for Cooper's hawk and the swallow-tailed kite, prioritized SHCA's, species richness, priority wetlands for listed species, and land cover for the project area.

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

The Florida Natural Areas Inventory (FNAI) maintains a separate database of listed plant and wildlife species, please contact FNAI directly for specific information on the location of element occurrences within the project area. 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 (850) 488-0588 or gisrequests@myfwc.com.

Sincerely,

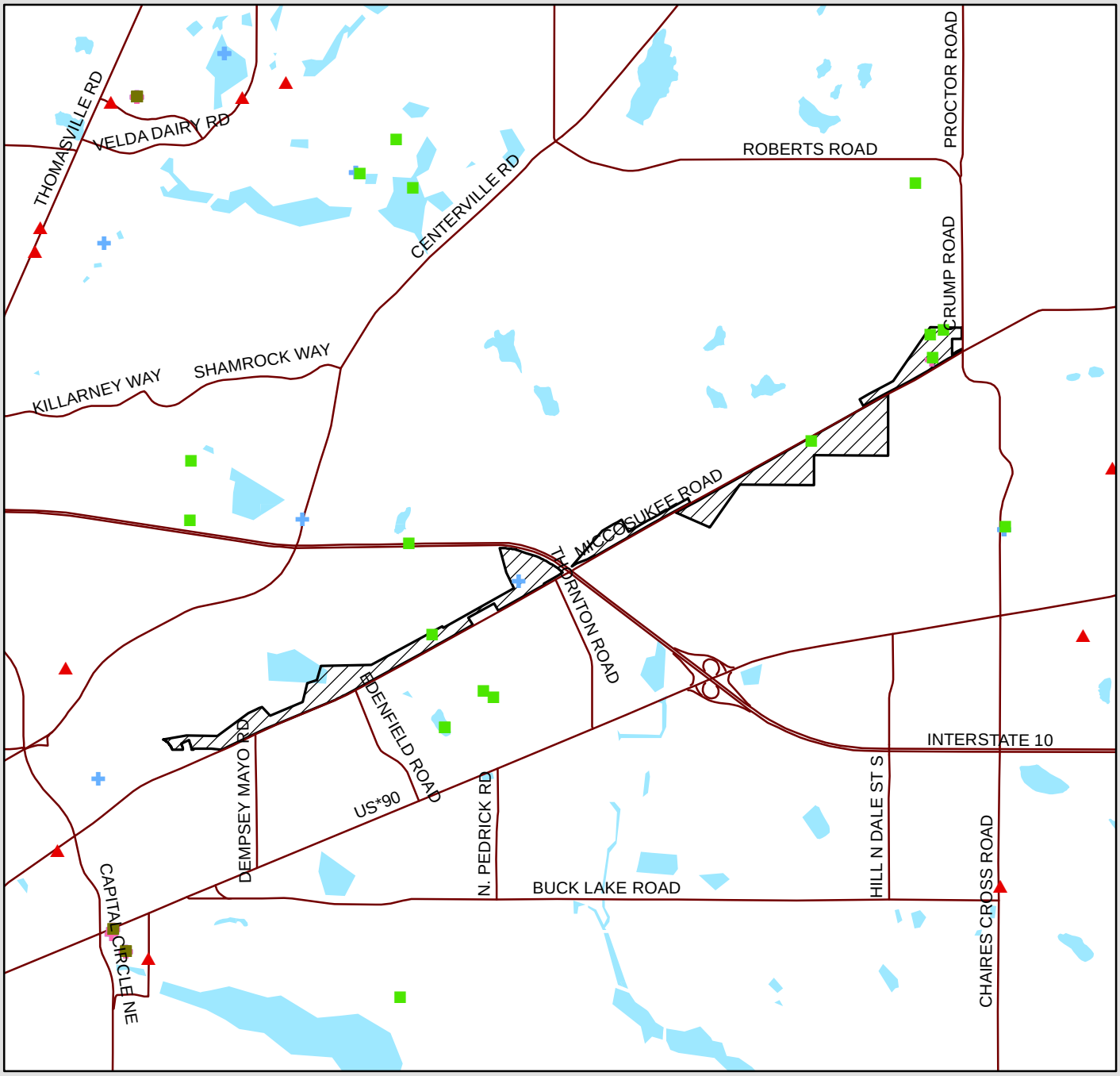
Jan Stearns

Jan Stearns
Staff Assistant

js
2011_5709
Enclosures

Species Occurrence

Miccosukee Canopy Road Greenway



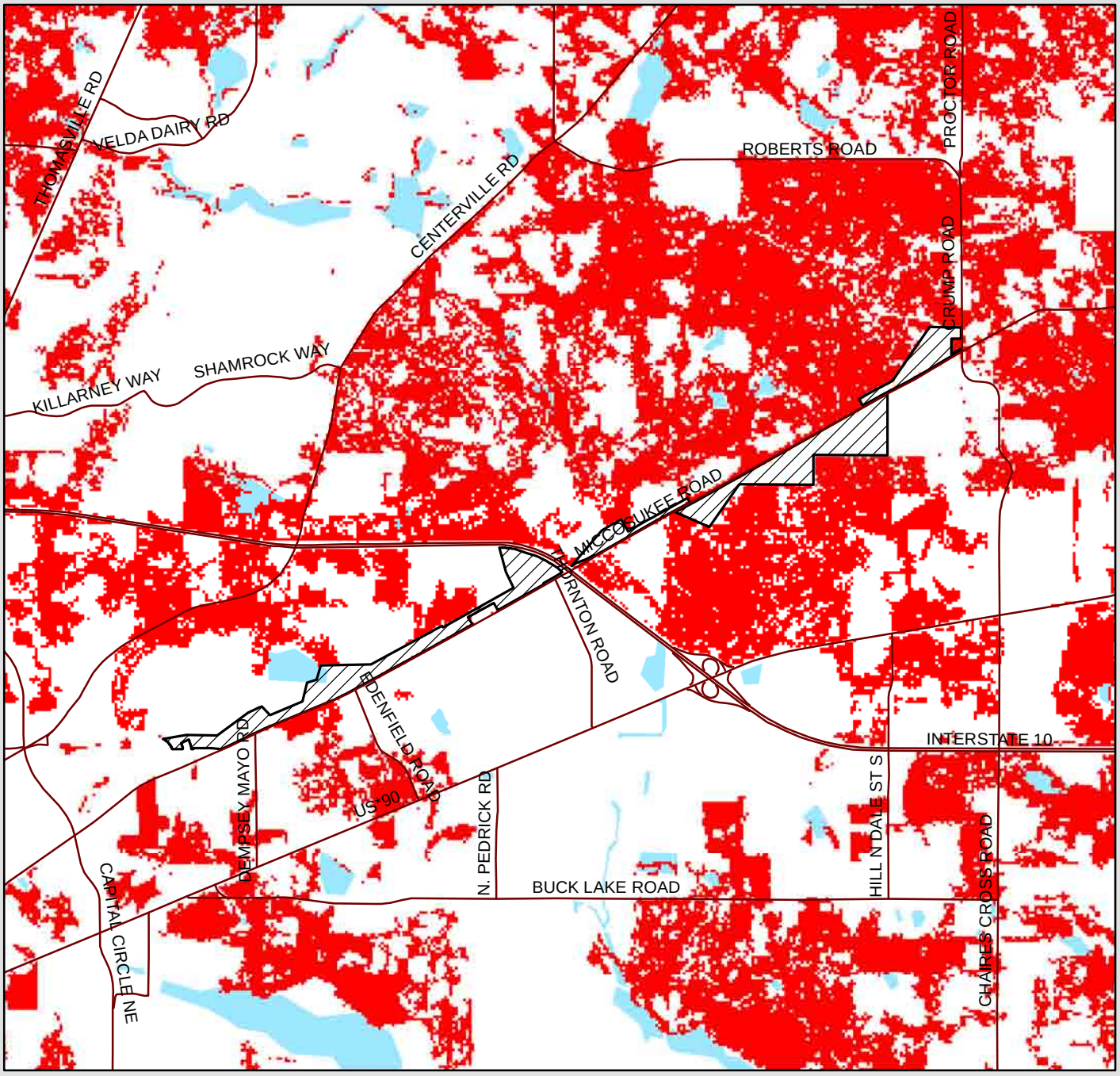
- Wading Bird Rookeries 1999
- Shore Birds Nests 2002
- Eagles Nests
- Bear Calls 1980-2009
- Florida Natural Inventory Areas
- Listed Species Wildlife Observations
- Wildlife Observations
- County Boundary
- Miccosukee Canopy Road Greenway

Miles
0 0.5 1 1.5 2

2011_5709

Strategic Habitat Conservation Areas

Miccosukee Canopy Road Greenway



Strategic Habitat Conservation Areas
County Boundary
Miccosukee Canopy Road Greenway

Miles
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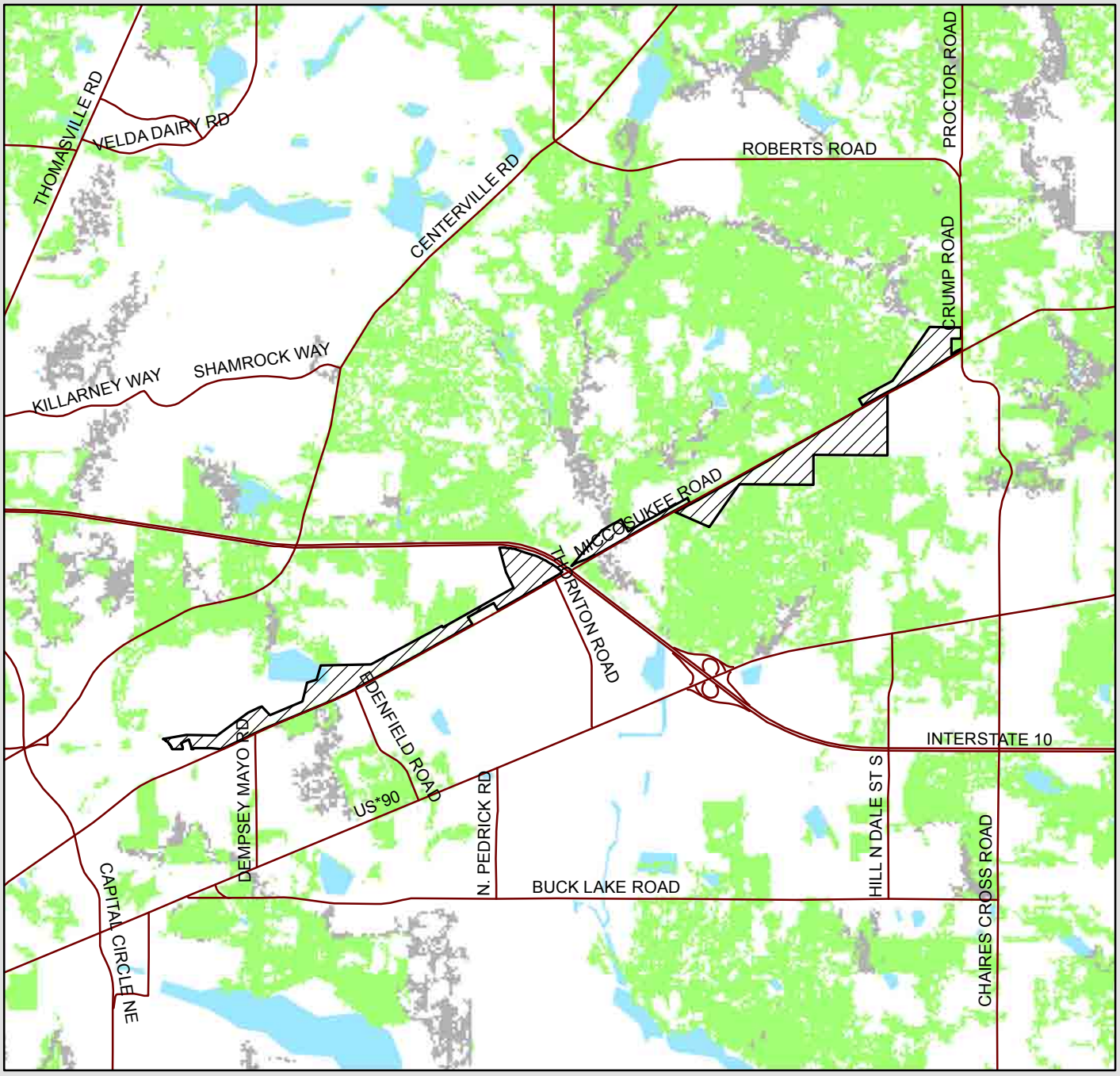
N

2011_5709

Prioritized SHCA's

Miccosukee Canopy Road Greenway



Prioritized SHCA's
- Priority 1
- Priority 2
- Priority 3
- Priority 4
- Priority 5

County Boundary

Miccosukee Canopy Road Greenway

N

0 0.5 1 1.5 2 Miles

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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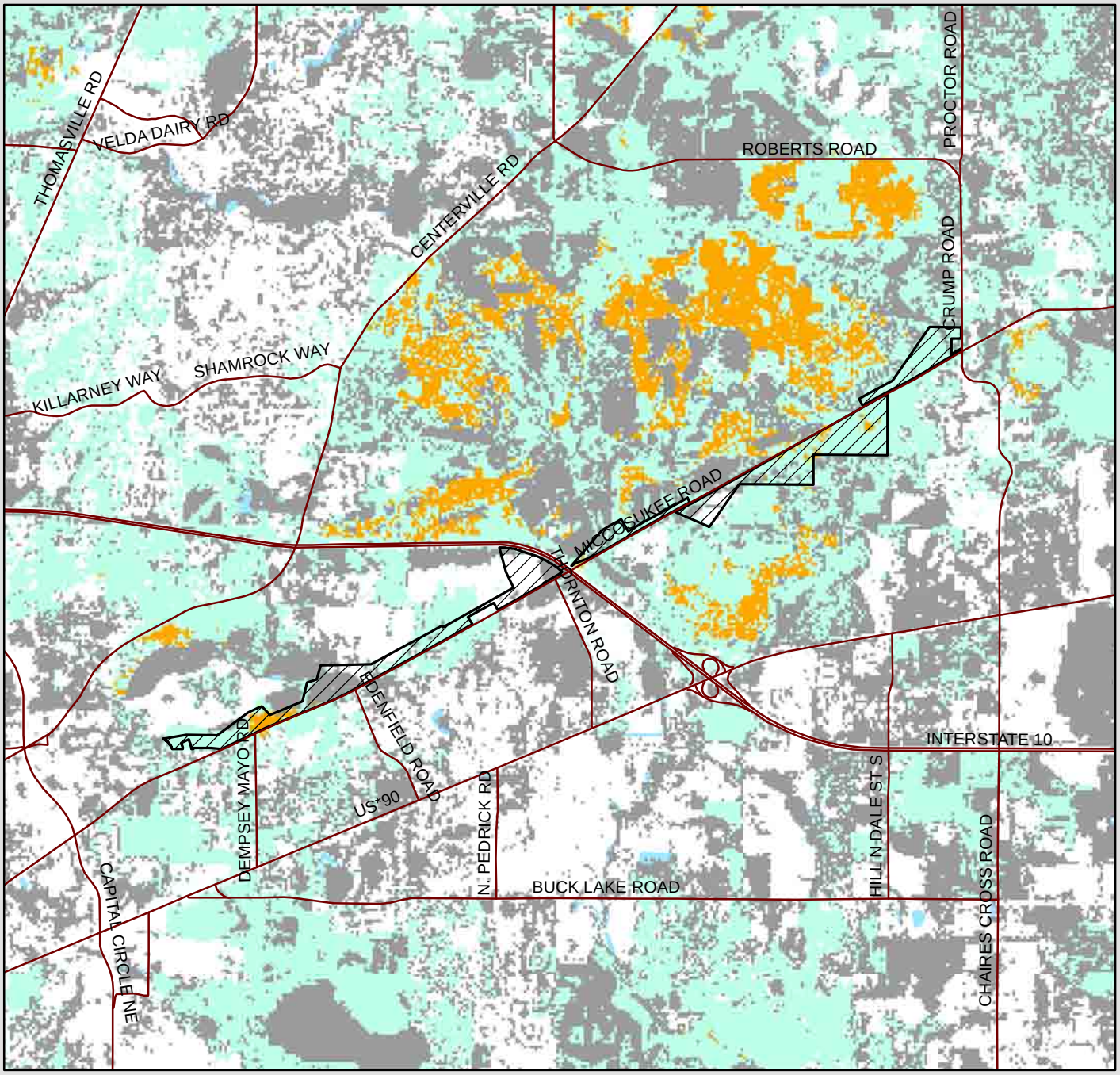
Species Richness

Miccosukee Canopy Road Greenway



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

County Boundary

Miccosukee Canopy Road Greenway

Miles
0 0.5 1 1.5 2

N

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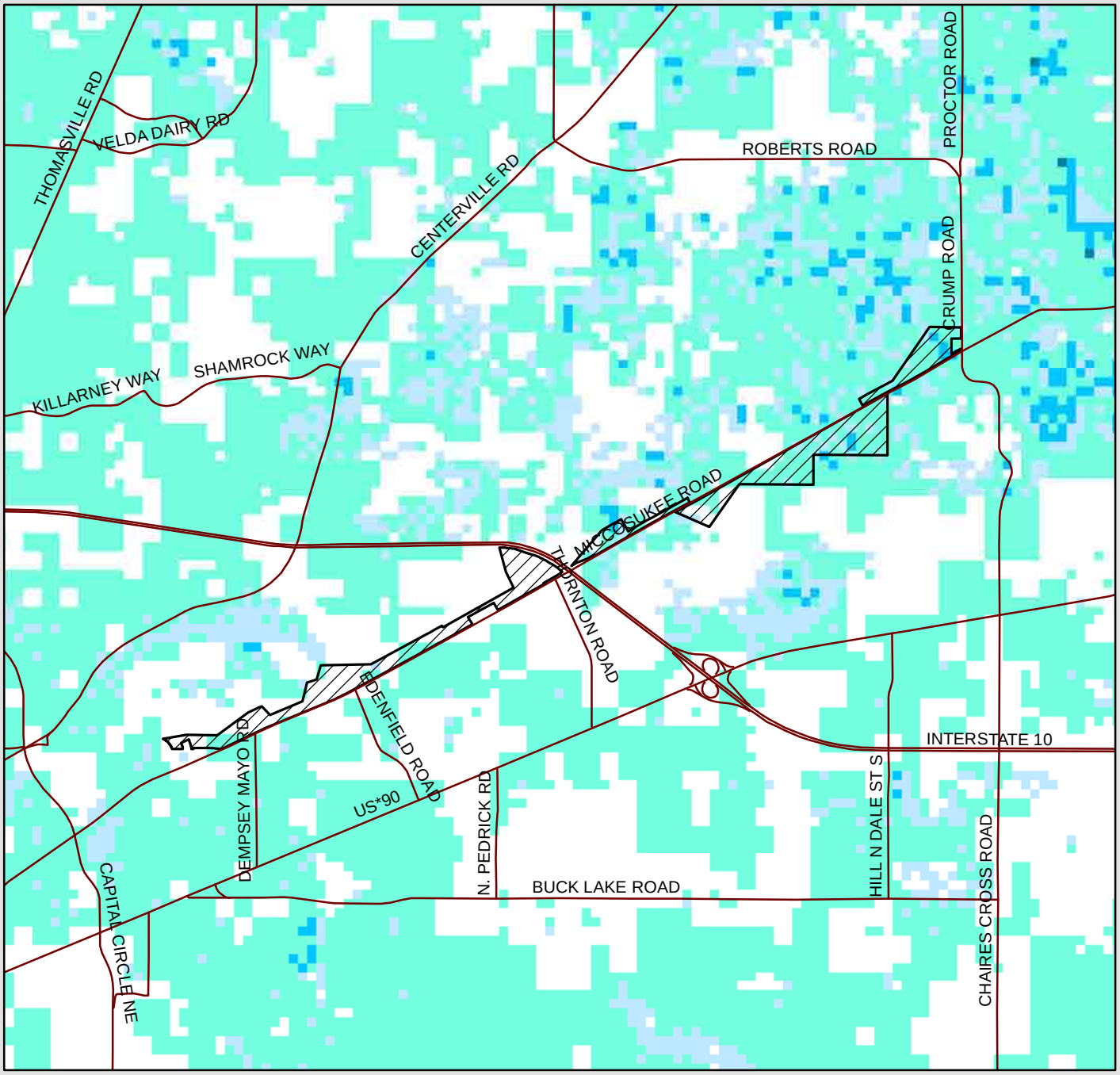
Priority Wetlands

Miccosukee Canopy Road Greenway



Priority Wetlands

- 1-3 species, upland habitat
- 1-3 species, wetland habitat
- 4-6 species, upland habitat
- 4-6 species, wetland habitat
- 7-9 species, wetland habitat

- County Boundary
- Miccosukee Canopy Road Greenway

Miles
0 0.5 1 1.5 2

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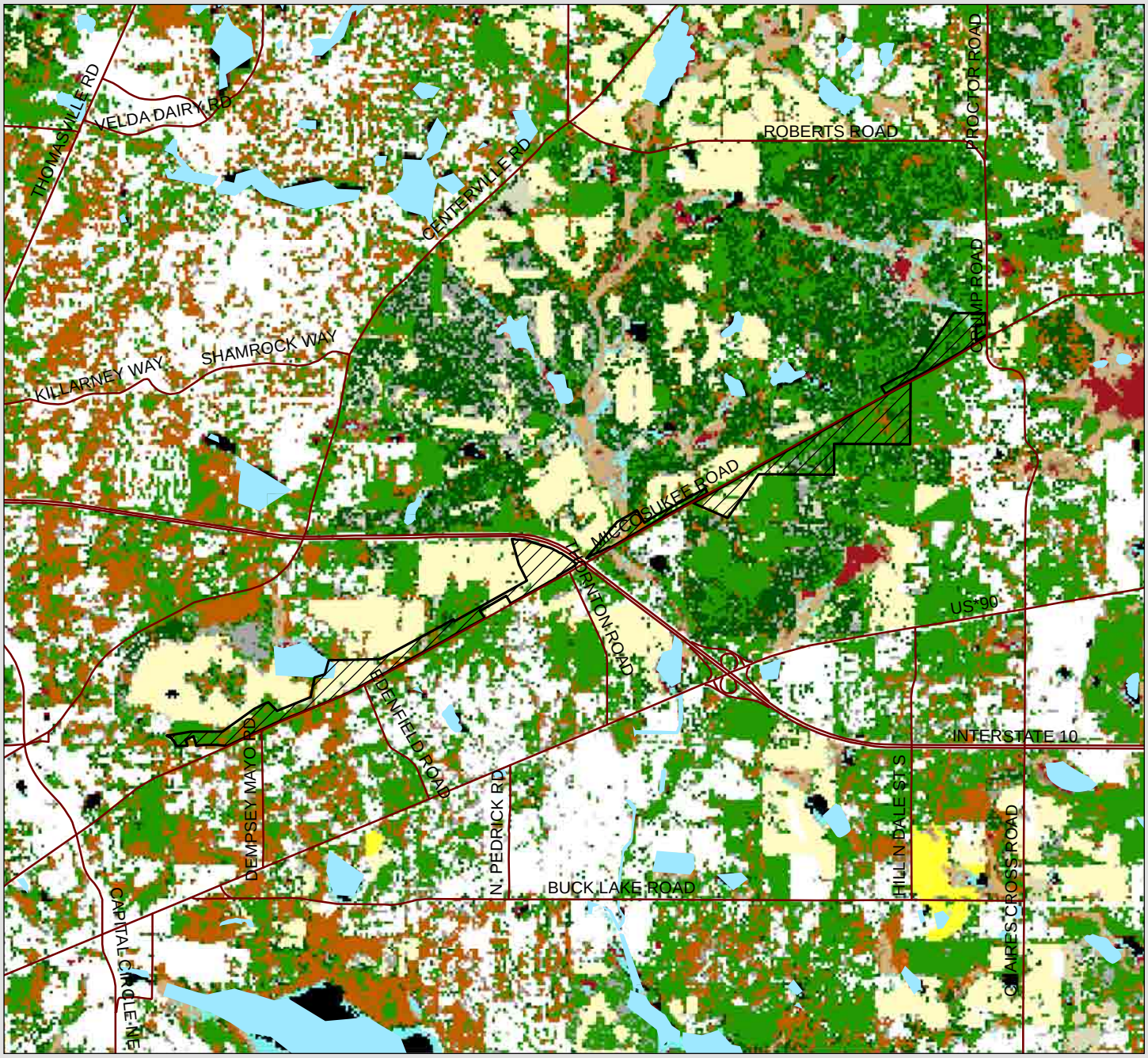
2011_5709

Florida Land Cover - 2003

Miccosukee Canopy Road Greenway



Project Site
Major Roads
County Boundary

Coastal Strand
Sand/Beach
Xeric Oak Scrub
Sand Pine Scrub
Sandhill
Dry Prairie
Mixed Pine-Hardwood Forest
Hardwood Hammocks and Forest
Pinelands
Cabbage Palm-Live Oak Hammock
Tropical Hardwood Hammock
Freshwater Marsh and Wet Prairie
Sawgrass Marsh

Cattail Marsh
Shrub Swamp
Bay Swamp
Cypress Swamp
Cypress/Pine/Cabbage Palm
Mixed Wetland Forest
Hardwood Swamp
Hydric Hammock
Bottomland Hardwood Forest
Salt Marsh
Mangrove Swamp
Scrub Mangrove

Tidal Flat
Open Water
Shrub and Brushland
Grassland
Bare Soil/Clearcut
Improved Pasture
Unimproved Pasture
Other Agriculture
Citrus
Exotic Plants
High and Low Impact Urban
Extractive

Miles
0 0.5 1

N

2011_5709

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 850-245-6333 for project review information.

June 6, 2011

Florida Master Site File

Robin L. Turner
Office of Greenways and Trails
3900 Commonwealth Blvd.
Tallahassee, FL 32399-3000
Phone: 850.245.2052
Email: robin.turner@dep.state.fl.us

In response to your inquiry of May 31, 2011, the Florida Master Site File lists one previously recorded archaeological site, one resource group, one historic cemetery, and no standing structures found within or intersecting the **Miccosukee Canopy Road Greenway** located in Leon County:

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

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

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

Sincerely,

Chris Fowler

Chris Fowler
Archaeological Data Analyst
Florida Master Site File
cgfowler@dos.state.fl.us

SURVEY REPORT

SURVNO	TITLE	AUTHOR	PUBDATE
545	ARCHAEOLOGICAL AND HISTORICAL SITE ASSESSMENT SURVEY OF TALLAHASSEE-LEON 201 CONVEYANCE PIPELINE ROUTE	JONES, B. CALVIN *	1978
6637	A CULTURAL RESOURCE ASSESSMENT OF THE STATE ROAD 8 (INTERSTATE 10) PD&E STUDY FROM SR 10 (US 90) INTER CHANGE IN GADSDEN COUNTY, TO SR 10 (US 90) MAHAN DRIVE INTERCHANGE IN LEON COUNTY	CAUSEY, PHILLIP D.	2001
8061	CULTURAL RESOURCE SURVEY: PROPOSED CELL TOWER #100804-2 TRINITY CHURCH, TALLAHASSEE, LEON COUNTY, FLOR IDA	CARLSON, BETSY	2001
13530	CULTURAL RESOURCE ASSESSMENT SURVEY EASTERN TRANSMISSION LINE LEON COUNTY, FLORIDA	ARCHAEOLOGICAL CONSULTANTS, INC.	2006
13982	CULTURAL RESOURCE ASSESSMENT SURVEY WELAUNEE TRACT, LEON COUNTY, FLORIDA	ACI	2007
15431	CULTURAL RESOURCE ASSESSMENT SURVEY WELAUNEE EAST TRACT, LEON COUNTY, FLORIDA	ARCHAEOLOGICAL CONSULTANTS, INC.	2007
17210	CULTURAL RESOURCE ASSESSMENT SURVEY OF SIX AREAS TO BE DEVELPOED AT MICCOSUKEE CANOPY ROAD GREENWAY PA RK, LEON COUNTY, FLORIDA	MORRELL, L. ROSS	2010

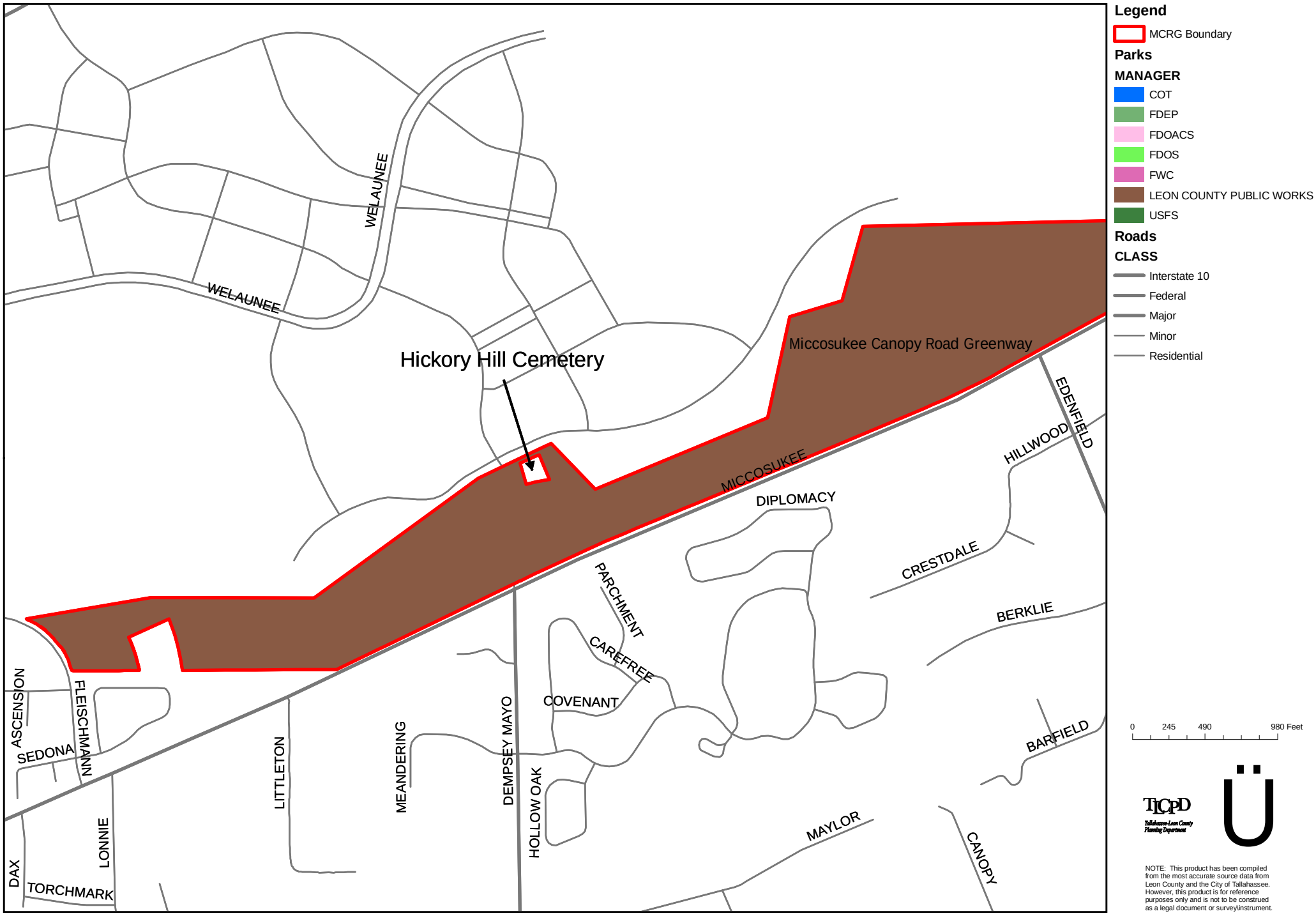
7 records printed.
Print date: 6/1/2011 9:37:49 AM

CULTURAL RESOURCES REPORT

SITEID	FORMNO	T-R-S	CR	SITENAME	NRLIST	SURVEY	LOCATION	OTHER
LE02910	200910	01N/01E/14	CM	OLD HICKORY HILL CEMETERY AT WELAUNEE			City: TALLAHASSEE	Condition: WLMT
LE05007	198806	01N/01E/1	RG	WELAUNEE PLANTATION		1877	City: TALLAHASSEE	RG Type: BCSF, # Cntrib Resources: 13
LE05294	200702	01N/01E/14	AR	WELAUNEE-MICCOSUKEE GREENWAY		13982	Map: LAFA	Culture: UNSP Sitetype: UNSP

3 site(s) evaluated; 3 form(s) evaluated. (1 AR, 1 CM, 1 RG)
Print date: 6/1/2011 9:36:08 AM

Location of Hickory Hill Cemetery



Appendix I

Glossary[1]

ACCESS - The opportunity to approach, enter, or make use of public lands.

ACCESS POINT- Designated areas and passageways other than a trailhead that allow the public to reach a trail.

ACCESS, PUBLIC - The right of passage, established by law, over another's property. Can be created by an easement dedicated or reserved for public access. Legal public access exists on public land, public waters, public rights-of-way, and public easements.

ARCHAEOLOGICAL RESOURCES - The physical evidence or remains of known historic or prehistoric human life, activity or culture. Significant ruins, artifacts, inscriptions, structural and/or human remains may be considered archaeological resources.

BICYCLE AND PEDESTRIAN WAYS - Any road, path or way which is open to bicycle travel and traffic afoot and from which motor vehicles are excluded.

BUFFER AREA - An area or space separating an outdoor recreation area from influences which would tend to depreciate essential recreational values of the outdoor recreation area. Especially needed in cases such as wilderness areas where the values involved are fragile or volatile or where the outside influences are of a particularly harsh and incompatible nature, as in urban or industrial areas, or along a busy highway.

CARRYING CAPACITY - The amount of outdoor recreation which a given outdoor recreation area, resource or facility can actually accommodate or provide at any given time under existing conditions.

COMPATIBLE OUTDOOR RECREATION ACTIVITIES - Outdoor recreational activities conducted on the same resource base without interfering with each other and which are not harmful to the environment.

COMPREHENSIVE PLAN - Plan that meets the requirements of s. 163.3177 and 163.3178, F.S., and thus contains the guidelines, principles and standards for the orderly, coordinated and balanced future economic, social, physical, environmental and fiscal development of the area.

CONSERVATION USES - Activities or conditions within land areas designated for the purpose of conserving or protecting natural resources or environmental quality, including areas designated for flood control and floodplain management, and the protection of quality or quantity of ground or surface water, commercial or recreational fish and shellfish habitat, or vegetative communities or wildlife habitats.

COST SHARING - The awarding of funds for financial assistance in the acquisition and development of an outdoor recreation project which is matched in varying amounts by the project's sponsor.

[1] From State Comprehensive Outdoor Recreation Plan and selected Florida Statutes and Administrative Code.

Appendix I

CULTURAL RESOURCES - Archaeological and historical sites and properties. The significance of these resources is derived not only from individual artifacts but also from the spatial arrangement of the artifacts in both horizontal and vertical planes.

DEMAND - See “OUTDOOR RECREATION DEMAND.”

DENSITY - An objective measurement of the number of people or residential units allowed per unit of land, such as residents or employees per acre.

DEVELOPMENT - The act of physically altering an area, site or resource to increase its ability or capacity to serve outdoor recreation purposes; also a representative result of such improvement. Development usually implies improvement by degrees and pertains primarily to the process of opening up, landscaping, erecting structures and facilities, etc. It is a more comprehensive term than "improvement."

ECOSYSTEM MANAGEMENT - An integrated approach to the management of Florida’s green infrastructure of native landscapes and communities recognizing the biological, physical and chemical elements of discrete environments conducted through the use of tools such as planning, land acquisition, environmental education, regulation and pollution prevention designed to maintain, protect and improve the state’s natural managed and human communities.

ECOTOURISM - Tourism based principally upon natural and archaeological/historical resources that involves traveling to relatively undisturbed or uncontaminated natural areas with the specific object of admiring, studying and enjoying the scenery and its wild plants and animals, as well as any existing cultural features (both past and present) found in these areas.

EXTENSIVE USE - (As contrasted with "intensive use.") Use of an outdoor recreation area for outdoor recreation activities which require a relatively high "land/man" ratio (large amount of resource per user served, e.g. hunting, wilderness camping, etc.).

FLORIDA GREENWAYS AND TRAILS SYSTEM - Statewide system proposed to link natural areas, open spaces and trails in Florida, consisting of large or medium-sized hubs, smaller sites and extensive to small connective landscape features.

FUNDING ASSISTANCE - The awarding of funds for assistance in financing the acquisition and development of an outdoor recreation project.

GREENWAY: A linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or over land along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route; any natural or landscaped course for pedestrian or bicycle passage; an open space connector linking parks, nature reserves, cultural features, or historic sites with each other and populated areas; or a local strip or linear park designated as a parkway or greenbelt.

HABITAT FRAGMENTATION - Human activity such as agriculture, road building and suburb and city development, resulting in the creation of small isolated areas that are poorly suited to maintaining ecological function and support smaller populations of remaining species. Two components of habitat fragmentation which may result in extinction include the reduction in

total habitat area, resulting in reduction in population sizes and redistribution of the remaining area into distinct fragments, affecting dispersal and immigration rates.

HISTORIC RESOURCES - All areas, districts or sites containing properties listed on the Florida Master Site File, the National Register of Historic Places or designated by a local government as historically, architecturally or archaeologically significant.

IMPERILED SPECIES - Plant and animal species designated as Endangered, Threatened, or a Species of Special Concern by the Florida Fish and Wildlife Conservation Commission, or that are designated as Endangered or Threatened by the U.S. Fish and Wildlife Service. This designation is also commonly known as “listed species.

INFRASTRUCTURE - Man-made structures which serve the common needs of the population, such as sewage disposal systems, potable water systems, potable water wells serving a system, solid waste disposal sites or retention areas, stormwater systems, utilities, piers, docks, wharves, breakwaters, bulkheads, seawalls, bulwarks, revetments, causeways, marinas, navigation channels, bridges or roadways.

INTENSITY - An objective measurement of the extent to which land may be developed or used, including the consumption or use of the space above, on or below ground, the measurement of the use of or demand on natural resources, and the measurement of the use of or demand on facilities and services.

INTENSIVE USE - (As contrasted with "extensive use.") Use of an outdoor recreation area for outdoor recreation activities which requires a relatively low "land/man" ratio or small amount of resource per user served, e.g. swimming, picnicking, sightseeing, etc.

INTERPRETIVE SIGN OR DISPLAY - An educational sign or display that describes and explains a natural or cultural point of interest on or along the trail.

KIOSK - A structure housing informational or interpretive displays.

LAND ACQUISITION - Obtaining land and related resources for public outdoor recreation by various means.

LAND PURCHASE - The acquisition of land and related resources in which title to the property is obtained by transaction involving payment to the grantor.

LANDSCAPE ECOLOGY - The study of native landscape structure, function and change at the scale of entire landscapes, as well as the application of the results to the design and management of both natural and human-dominated areas.

LEVEL OF SERVICE - An indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. Level of service shall indicate the capacity per unit of demand for each public facility.

MANAGEMENT AREA - An area devoted to specialized management for either game (wildlife management area) or sport fish (fish management area) and declared to be such by the Florida Fish and Wildlife Conservation Commission.

Appendix I

MATCHING BASIS - The awarding of funds for financial assistance in the acquisition and development of an outdoor recreation project which is matched equally by the project's sponsor.

MITIGATION BANKING - Preserving, restoring or enhancing wetland areas for the purpose of setting them aside to compensate for future conversions of wetlands for development activities. A wetland bank may be created when a government agency, a corporation or a nonprofit organization undertakes such activities under a formal agreement with a regulatory agency. The value of a bank is determined by quantifying the wetland values restored or created in terms of “credits.”

MULTI-PURPOSE OUTDOOR RECREATION FACILITY - (As contrasted to a "single purpose facility.") An outdoor recreation facility which is designed for more than one activity use, e.g. athletic field or racquetball/handball court.

MULTIPLE USE - A land management objective seeking to coordinate several environmental, recreational, economic, historic, cultural and/or social values in the same geographic area in a compatible and sustainable manner. Also, the harmonious and coordinated management of timber, recreation, conservation of fish and wildlife, forage, archaeological and historic sites, habitat and other biological resources, or water resources so that 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 of these resources and giving consideration to the relative values of the various resources.

NEIGHBORHOOD PARK - A park which serves the population of a neighborhood and is generally accessible by bicycle or pedestrian walkways.

OPEN SPACE - Undeveloped lands suitable for some types of recreation activities or conservation uses.

OUTDOOR RECREATION - The pursuit of leisure-time activities which occur in an outdoor setting. (For clarification on types of outdoor recreation, see “resource-based outdoor recreation” and “user-oriented outdoor recreation.”)

OUTDOOR RECREATION ACTIVITY - A specific, individual type of outdoor recreation. Activities are divided into two categories: active activities are those which involve some direct and specialized physical manipulation by the participant such as swimming, hiking, boating, etc.; passive activities are those which are more mental than physical, such as sightseeing, nature study, scenic appreciation, etc.

OUTDOOR RECREATION AREA - Generally, any expanse of real estate, of no particular size, used for outdoor recreation. Used in the plural it is all-inclusive, although in specific usage it would be contrasted with an "outdoor recreation site" by being larger and broader in purpose.

OUTDOOR RECREATION DEMAND - The quantity of outdoor recreation necessary to satisfy all prospective participants during any given time period. Demand is not strictly a matter of desire, but rather of desire tempered by such limiting factors as opportunity, awareness, financial ability, physical ability, and competing uses of available time.

Appendix I

OUTDOOR RECREATION FACILITIES - Those improvements or artificially installed accessories which facilitate the use of an area or a resource for outdoor recreation. Facilities are divided into two categories, primary facilities are those that are essential or extremely desirable for conducting a particular outdoor recreation activity, such as launching ramps for boating, trails for cycling, roads for access to areas, etc. and secondary facilities are those that are desirable as a further enhancement of the recreational experience but are still dispensable, such as outdoor grills for picnicking and camping, docks for boating, etc.

OUTDOOR RECREATION NEED - The amount by which outdoor recreation demand exceeds available outdoor recreation supply in a given area. Used in the plural, "needs" usually refers to the actual resources and facilities which comprise "need."

OUTDOOR RECREATION OPPORTUNITY - The availability of a preferred type of outdoor recreation to a potential user or participant. Used in a collective sense, it refers to the total amount of potential outdoor recreation available at any given time.

OUTDOOR RECREATION PLAN - An overall framework for the planning and provision of balanced outdoor recreation opportunities for potential and actual users.

OUTDOOR RECREATION PROGRAM - An ongoing series of related and coordinated efforts designed to further a common outdoor recreation purpose.

OUTDOOR RECREATION RESOURCE AND FACILITY REQUIREMENTS - The total amount of actual outdoor recreation resources and facilities necessary to supply a specified amount of outdoor recreation demand at a given time.

OUTDOOR RECREATION RESOURCE AND FACILITY GUIDELINE - Hypothetical measures of outdoor recreation opportunities expressed as park, resource or facility units which are intended to represent conditions of use and optimum levels of supply for the individual user, a given population of residents or a specific service area within a city or county.

POPULATION GUIDELINE - An optimum ratio of a given quantity of resources and facilities to a hypothetical number of people, e.g. one tennis court per 2,000 population. Population guidelines are provided for both resource-based and user-oriented activities and are used primarily by local government and private development agencies.

OUTDOOR RECREATION RESOURCES - Those natural resources used for the support of outdoor recreation, such as land, water, wildlife, natural scenery, etc. A special case is made where historical and archaeological remains are concerned. Although not natural resources, they are included because of their limited, non-renewable character.

OUTDOOR RECREATION SITE - An outdoor recreation area of relatively small size.

OUTDOOR RECREATION SUPPLIER - An agency, organization, group or individual, either public or private, with a broad area of responsibility for providing public outdoor recreation, distinguished on the basis of both the nature of the supplier and the nature of the outdoor recreation supplied. Six categories of outdoor recreation suppliers have been defined: federal and state government, county and municipal government, private commercial enterprise, private non-profit, private club and private un-inventoried.

Appendix I

OUTDOOR RECREATION SUPPLY - The total amount of potential outdoor recreation afforded at any given time by an outdoor recreation system.

OUTDOOR RECREATION SUPPLY CAPACITY - The amount of outdoor recreation which a given outdoor recreation area, resource, facility or site can accommodate or provide at any given time under a specified measure of use conditions.

OUTDOOR RECREATION SUPPLY POTENTIAL - The amount of potential outdoor recreation afforded in the future by any outdoor recreation system.

OUTDOOR RECREATION SYSTEM - A purposeful assemblage of physical units or elements made up of recreation areas, resources and facilities designed to meet the demands of a given segment of the public.

OUTDOOR RECREATION USE - The involvement of outdoor recreation areas, resources or facilities in the purpose for which they were intended.

OUTDOOR RECREATION USER - One who uses outdoor recreation areas, resources or facilities.

PARK - Any area that is predominately open space with natural vegetation and landscaping used principally for active or passive recreation.

PARK, LINEAR - A linear open space established along a natural corridor, such as a river, stream, ridgeline, rail-trail, canal, or other route for passive recreation, education, and scenic purposes.

PARTICIPANT ACTIVITIES - Those outdoor recreation activities which involve direct participation, either active (as in the case of swimming) or passive (as in the case of nature study), by the individual. (See "spectator activities.")

PARTICIPANTS-PER-FACILITY RATIO - A need methodology that compares the number of one time activity users per unit of supply.

PER CAPITA PARTICIPATION RATE - The rate at which a person participates in a particular outdoor recreation activity, expressed in number of times per year.

PLAYGROUND - A recreation area with play apparatus.

PRIORITY - The ranking or order of precedence assigned to each project or need to establish

PRIVATE RECREATION SITES - Sites owned by private, commercial or non-profit entities available to the public for purposes of recreational use.

PROJECTION - An extrapolation or extension of known data to derive comparable working data for selected target dates.

PUBLIC ACCESS - The ability of the public to physically reach, enter or use recreation sites including beaches and shores.

PUBLIC LANDS - Any lands in the state which are owned by, leased by or otherwise assigned to the state or any of its agencies and which are used by the general public for recreational purposes.

PUBLIC RECREATION SITES - Sites owned or leased on a long-term basis by a federal, state, regional or local government agency for purposes of recreational use.

Appendix I

RECREATION - The infinite variety of activities which people elect to occupy their leisure time and satisfy their need for diversion.

RESOURCE-BASED OUTDOOR RECREATION - Types of outdoor recreation activities dependent on natural and cultural resources, contrasted with “user-oriented” outdoor recreation. For this plan, activities include saltwater beach activities, bicycle riding, boating, camping, fishing, hiking, horseback riding, hunting, nature study, off-highway vehicle riding, picnicking, freshwater swimming and visiting archaeological and historical sites.

RESOURCE/FACILITY REQUIREMENTS - The total amount of outdoor recreation resources/facilities necessary to accommodate the total outdoor recreation demand at any given time.

RESOURCE TYPE - A class of outdoor recreation resource which can be specifically identified, such as a freshwater lake, an ocean beach, a hardwood forest, etc.

RURAL AREAS - Low density areas characterized by social, economic and institutional activities which may be largely based on agricultural uses or the extraction of natural resources in unprocessed form, or areas containing large proportions of undeveloped, unimproved or low density property.

SERVICE AREA - The surrounding land area from which an outdoor recreation resource, area, site or facility draws its participants.

SINGLE-PURPOSE FACILITY - (As contrasted to "multi-purpose.") A specialized type of outdoor recreation facility which is designed for one recreational activity, e.g. tennis court.

SINGLE USE - Management for one particular purpose to the exclusion of all other purposes, except that the using entity shall have the option of including in its management program compatible secondary purposes which will not detract from or interfere with the primary management purpose.

SITE GUIDELINE - An estimate of local park and recreation area acreage proposed for serving various specific service areas or particular populations residing within a given radius, e.g. two acres of neighborhood park per 1,000 population, serving not more than 5,000 people and a population residing within 1/4 to 1/2 mile of the park.

SPECTATOR ACTIVITIES - Those outdoor recreation activities which are carried on primarily for the visual benefit of others rather than for the direct enjoyment of the active participants, such as stadium sports, horse races, etc.

STAKEHOLDER - Group or individual who can affect, or is affected by, the achievement of the organization or program’s mission. Examples include managers, employees, policy makers, suppliers, vendors, citizens and community groups.

STEWARDSHIP - Sense of responsibility for, desire to participate in, or taking charge of the protection and management of land and water resources.

SUITABILITY - The degree to which the existing characteristics and limitations of land and water are compatible with a proposed use or development.

Appendix I

SURFACES - Unimproved, unpaved: Natural materials such as indigenous soil, left litter, pins straw, mowed grass, wood chips. Improved, unpaved: Compacted limestone, soil stabilizers, and graded road base. Consideration should be given to the type of surface used depending on location, cost expected volume of use and type of users. (Soft sandy soils and gravel should not be considered for extended multi-use trails.)

SYSTEMS PLANNING - The process of assessing the park, recreation, open space and greenway facility needs of a community and translating that information into a framework for meeting the physical, spatial and facility requirements to satisfy those needs.

TRAIL - Linear corridor and any adjacent support parcels on land or water providing public access for recreation or authorized alternative modes of transportation:

Trail Types:

Hiking:	Path used solely for backpacking or long distance hiking.
Bicycle:	Designated trail or system of trails used primarily for bicycling.
Interpretative/ Nature:	Trail designed or marked for nature interpretation and study.
Horseback:	Improved or unimproved trail designated and used primarily for horseback riding.
Canoe and Kayak:	Distance along most commonly used route on a designated or undesignated waterway used for canoeing.
Exercise/ Parcourse:	Course designed generally for jogging, but which may or may not have exercise stations.
Multipurpose, Multi-use or Shared:	Trail used for more than one of the above activities.

TRAILHEADS - are classified into three categories: Primary, Secondary and Remote, and should include as a minimum:

- Primary Trailhead consists of improved parking areas, public telephone, sanitary facilities, information and interpretive signs, maps and brochures, potable water, picnic facilities, electric service, direct access by management personnel and other amenities.
- Secondary Trailhead consists of unimproved parking areas, sanitary facilities, information signs, maps or brochures, potable water and access by management personnel.
- Remote Trailhead consists of an unimproved parking area, bench information signs, maps or brochures and access by management personnel.

URBAN AREA - An area of, or for development, characterized by social, economic and institutional activities which are predominantly based on the manufacture, production, distribution or provision of goods and services in a setting which typically includes residential and nonresidential development uses other than those which are characteristic of rural areas.

URBAN SPRAWL - Urban development or uses which are located in predominantly rural areas, or rural areas interspersed with generally low-intensity or low-density urban uses, and which

are characterized by one or more of the following conditions: (a) The premature or poorly planned conversion of rural land to other uses; and (b) The creation of areas of urban development or uses which are not functionally related to land uses which predominate the adjacent area; or (c) The creation of areas of urban development or uses which fail to maximize the use of existing public facilities or the use of areas within which public services are currently provided. Urban sprawl is typically manifested in one or more of the following land use or development patterns: Leapfrog or scattered development; ribbon or strip commercial or other development; or large expanses of predominantly low-intensity, low-density, or single-use development.

USE GUIDELINE (OR USE STANDARD) - A hypothetical measure of use conditions for outdoor recreation resources and facilities, e.g. the number of hikers per unit of trail, the number of bathers per unit of beach, etc. Use guidelines are used to translate outdoor recreation supply (expressed in physical units of measure) into outdoor recreation demand (expressed in user occasions).

USER-ORIENTED OUTDOOR RECREATION - Types of outdoor recreation that can be placed at the convenience of the user to take advantage of proximity to population centers. For this plan, these activities include golf, tennis, baseball/softball, football/soccer, handball/racquetball, shuffleboard, basketball, volleyball and outdoor pool swimming. Land areas for space is usually the only consideration dealing with the natural resource base. Some types of outdoor recreation may be either "user-oriented" or "resource-based" depending on the setting they utilize and the conjunctive values involved, as with the case of swimming, bicycling, picnicking, camping, etc.

USER-PREFERENCE - The exercise of choice of outdoor recreation activities by a potential participant. The total impact of user-preference is the determination of activity distribution in outdoor recreation demand.

USER-SATISFACTION - The measure of the extent to which an outdoor recreation experience satisfies the desires of the participant. Also sometimes referred to as user-enjoyment.

WETLANDS - Areas that are inundated or saturated by surface water or ground water at a frequency and a duration sufficient to support, and [that] under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils. Soils present in wetlands generally are classified as hydric or alluvial, or possess characteristics that are associated with reducing soil conditions. The prevalent vegetation in wetlands generally consists of facultative or obligate hydrophytic macrophytes that are typically adapted to areas having soil conditions described above. Florida wetlands generally include swamps, marshes, bayheads, bogs, cypress domes and strands, sloughs, wet prairies, riverine swamps and marshes, hydric seepage slopes, tidal marshes, mangrove swamps and other similar areas.

WILDERNESS - An undeveloped area of land which has essentially retained its primeval character and influence without permanent alteration.

WILDLIFE - Animals such as birds, fish, insects, mammals, amphibians and reptiles that are living in natural or wild environments. Wildlife does not include animals living in aquariums, zoos and other artificial surroundings, or domestic animals such as pets and livestock.

APPENDIX J

Budget Document

To be inserted

Appendix K

Existing Improvements
Miccosukee Canopy Road Greenway
Leon County Division of Parks and Recreation

Fleshman to Edenfield (between)

- Three (3) Benches

Edenfield Trail Head

- Restrooms both Men and Women's with water fountain
- Eight (8) Trash Cans
- Eight (8) Picnic Tables
- Six (6) Benches
- One (1) Horse Water
- One (1) Mister (for people)
- One (1) Kiosk
- One (1) Rules Sign
- Three (3) Handicap Parking Spaces
- One (1) Entrance Sign
- One (1) Dog Stool Bags Dispenser
- Forty-Four (44) Regular Parking Spaces

Edenfield to Thornton (between)

- Four (4) Benches
- One (1) Picnic Table
- One (1) Antique Hay Rack
- Butterfly Field

Thornton Trail Head

- Four (4) Trash Cans
- One (1) Rules Sign
- One (1) Entrance Sign
- One (1) Kiosk
- Two (2) Handicap Parking Spaces
- One (1) Port-A-Let (Multiuse)
- One (1) Horse Water
- One (1) Hose Spigot
- Sixteen (16) Regular Parking Spaces
- Horse Trailer Parking 1.06 Acres

Thornton to Far East Crossing

- Six (6) benches
- Two (2) Wooden Bridges

Crump Trail Head

- One (1) Port-A-Let (Multiuse)
- Two (2) Handicap Parking Spaces
- Two (2) Trash Cans
- One (1) Picnic Table
- One (1) Entrance Sign
- Parking Area 1.89 Acres

CONSERVATION ELEMENT

Policy 1.2.1: [C][1] (Effective 7/16/90)

Local government shall work with all applicable private, local, state and federal programs such as the Conservation and Recreation Lands program, Save Our Rivers, Surface Water Improvement and Management (SWIM), Land Acquisition Trust Fund program and others in the acquisition and maintenance of unique vegetative communities, as well as protecting and enhancing surface and groundwater.

Policy 1.2.3: [C] (Effective 6/14/00; Revision Effective 4/10/09)

In conjunction with the appropriate state, federal and regional agencies and property owners, local government shall implement, maintain, and promote land management practices that enhance fire protection, wildlife habitat and sustainable silviculture practices. These practices shall include, but not be limited to, the use of prescribed burns, the creation of defensible space buffers, vegetative maintenance, and the control or removal of invasive exotics.

In areas of wildfire hazard, the land development regulations shall require the provision of defensible space buffers surrounding new developments and multiple exits from large developments. To further the effectiveness of these practices, public awareness programs will be developed by 2010 to inform and educate existing and new property owners that these practices, prescribed burns in particular, may be regularly employed nearby and may affect their property.

Policy 3.1.1: [C] (Effective 7/16/90)

Local government shall identify all endangered, threatened, and species of special concern identified on the state and federal list which exist within Leon County. Local government shall allow private groups to inventory and develop a list of endangered, threatened or species of special concern unique to Leon County, and will present such Leon County lists for inclusion on the state and federal list.

Policy 3.1.4: [C] (Revision Effective 12/7/99)

By 2001, local government shall develop habitat protection and management guidelines that at a minimum meet or exceed state and federal requirements for threatened, endangered species and species of special concern. Through local ordinances, continue to require proposed development to indicate any habitats of endangered, threatened, and species of special concern which may exist onsite or may be expected to occur on-site. In addition, the applicant must discuss the wildlife habitat characteristics of the site and list any wildlife species observed through field survey. State and Federal requirements will give guidance until local management guidelines are developed.

[1] Conservation Element.

Policy 3.1.6: [C] (Effective 7/16/90)

By 1993, local government shall have developed and implemented management plans for listed species found on all lands owned by city and county governments, especially passive parks.

Policy 3.1.7: [C] (Revision Effective 7/1/94)

All development sites that contain endangered, threatened or species of special concern shall submit a management plan that must be submitted to Florida Game and Fresh Water Fish Commission or other appropriate Federal, State and local government agency for review and comment prior to development approval. Recommendations from the Florida Game and Fresh Water Fish Commission and if applicable, other appropriate Federal, State and local government agencies shall be incorporated into the management plan.

Policy 3.4.9: [C] (Effective 7/16/90)

Land uses which generate or attract large volumes of traffic shall be discouraged along designated canopy corridors.

Policy 6.1.1: [C] (Effective 6/25/96; Revision Effective 7/20/05)

The greenways network shall attempt to interconnect existing dedicated open space areas and be comprised primarily of preservation and conservation features as described in Policy 1.3.1 [C] and 1.3.2 [C]. Floodplains and natural drainageways shall receive particular emphasis for inclusion in the network. Other lands that do not qualify as preservation or conservation features may be included in the network based on connectivity, historical value, or value as a natural resource buffer. To the maximum extent practicable, bicycle trails, pedestrian pathways, and where appropriate, utility corridors, shall be included in the greenways network.

Policy 6.1.2: [C] (Effective 6/25/96; Revision Effective 7/20/05)

The Tallahassee-Leon County Greenways Master Plan is the overall guiding document for the planning, acquisition, development, and management of the local greenways network. Local government shall incorporate the objectives of the Greenways Master Plan in its long-range land use, leisure, conservation, and transportation planning activities where applicable, and reflect the presence of greenway features and design in permitting activities. The Planning Department in consultation with other City and County departments and other local agencies as appropriate, shall be responsible for identifying and coordinating the acquisition or protection of the elements of a county-wide greenways system.

Policy 6.1.3: [C] (Effective 6/25/9; Revision Effective 7/20/05)

Local government shall prepare specific management plans for lands acquired, preserved, or otherwise included in the greenways network. The management plans shall address natural resources protection, public access, recreation, education, and opportunities for economic development that is complementary to maintaining the network. The management plans shall identify the anticipated costs and departments responsible for implementation of the plans.

Policy 6.1.4: [C] (Effective 7/2/99)

Properties acquired to implement the county-wide Greenways network shall be managed to ensure that the resources for which the sites are acquired are protected or restored to the greatest extent practicable while supportive of other objectives such as passive recreation, education, and interpretation. Such management shall include, but not be limited to, reforestation and replanting of Policy 1.1.3 of the Parks and Recreation Element [R]; and appropriate terrestrial and aquatic or wetland vegetation, removal of noxious exotic terrestrial and aquatic vegetation, and physical modification and biological enhancement of streambeds, ditches and shorelines to improve water quality or minimize erosion.

Policy 1.1.4: [R] (Revision Effective 1/27/94; Revision Effective 12/2/4/2010)

In the acquisition and development of future park facilities, priority shall be given to the preservation of natural vegetation and land features, consistent with the functional purpose of the individual park. As a minimum, a system-wide average of 50% of the natural features will remain undeveloped except for inclusion of passive recreational facilities, such as trail systems, ancillary parking, and picnicking facilities. This system-wide policy is based on the recognition that some types of facilities (such as golf courses and ball fields), due to their design requirements and functions, will require greater disturbance of natural features than would other types of park facilities. This standard shall be based on all lands included in the level of service system provided in Policy 1.1.1 [R] above, not on the land holdings of an individual government.

Board of County Commissioners
Leon County, Florida

Policy No. 06-1

Title:	Use and Scheduling of Parks & Recreation Facilities
Date Adopted:	January 19, 2010
Effective Date:	January 19, 2010
Reference:	N/A
Policy Superseded:	Policy No. 79-8, "County Community Service Facility," adopted September 25, 1979; Policy No. 92-10 amended 10/27/92; Policy No. 94-3, amended April 26, 1994; and Policy No. 02-6, "County Community Service Facilities," adopted July 9, 2002; Policy No. 06-1, "Use and Scheduling of Parks and Recreation Facilities, adopted January 10, 2006, amended February 26, 2008

It shall be the Policy of the Board of County Commissioners of Leon County, Florida that:

Policy No. 06.1, adopted January 10, 2006 and amended on February 26, 2008, is hereby amended, and a new amended policy is hereby adopted in its place, to wit:

1. Purpose

1.1 The purpose of this policy is to assure that the Parks & Recreation Division facilities are utilized for recreational, athletic, cultural, educational, social, civic, fraternal, governmental, religious, political, charitable, and community service functions that meet the needs and interests of the community, as well as set clear policies, procedures, and rental fees regarding such uses.

1.2 Exclusive use of any facility requires an advance reservation and is subject to rental fees, security deposits, and staffing fees (set up and take down). Some facilities may not be reserved for exclusive use.

2. Authority

2.1 The Division of Parks & Recreation is responsible for developing, communicating, and monitoring polices, procedures, and standards for the use and scheduling of Parks & Recreation facilities.

3. Facilities Available

3.1 The Parks & Recreation Division makes available for rent buildings, rooms, community centers, picnic shelters, campsites, open space, boat ramps, and athletic fields. Times and dates available are at the discretion of the division.

4. Reservations

4.1 Reservations shall be made no more than 365 days and no less than seven (7) calendar days prior to the date(s) of use. Reservations are guaranteed after all necessary forms and payments are received and approved at the Parks & Recreation Division administrative office located at 2280 Miccosukee Road, Tallahassee, FL 32308.

Group activities or special events that involve 50+ people attending or participating may require a permit from the Division of Parks & Recreation for use of any park or recreation facility or site. The applicant should submit such permit_request no later than 30 days prior to the event. Events involving 100+ people or additional preparation by park personnel must be submitted 60 days prior to the proposed special event date.

4.2 All applicants must be at least 18 years of age or older and must provide proof of residency in Leon County for priority consideration.

4.3 The Parks and Recreation Division reserve the right to set aside certain dates for functions sponsored in part or by Leon County.

5. Fees

5.1 Full rental fees, security deposits, staffing fees, and permit applications are due at the time ~~of~~ the reservation is submitted.

5.2 Payment by check, cash, credit card, or money order is required for the building and staff fees.

5.3 A security deposit shall be required for any damage/clean-up expense. The deposit will be returned if no damage occurs and the facility is clean after use. The Parks & Recreation Division reserves the right to bill the applicant for additional expenses relating to, but not limited to, janitorial services, maintenance/repair services, staff time, or emergency services that were required because of the use.

5.4 Checks or money orders must be made payable to the Leon County Board of County Commissioners.

5.5 Applicants shall forfeit the rental opportunity if the checks are not honored by the bank. Any future requests will require fees paid by cash or money order only. Applicant will be responsible for bank service fee.

5.6 The Parks & Recreation Division may require additional staff for rentals where attendance is expected to exceed 50 people. An off duty sheriff deputy/deputies may also be required at the applicants expense.

5.7 The Parks & Recreation Division may require two division representatives for any teen event if the attendance exceeds 50 people. If attendance is, greater than 50 people the applicant must hire one off-duty Leon County Sheriff deputy for each additional 50 people. In addition, the applicant must provide adequate adult supervision at all times. (Refer to Section 7.13). All teen events that occur after 6:00 P.M. may require a deputy.

5.8 Request for a waiver of the user fee for non-profit organizations that would like to collaborate with Leon County must be made in writing at the time of rental request. Included in the request shall be the purpose of the rental activities to be conducted as well as a brief description of the organization, purpose, goals, and pertinent information including the 501 (c) (3) determination letters from the IRS along with the Department of Revenue Consumers Certificate of Exemption.

Request for a waiver by groups providing education opportunities for citizens and those providing programs for County senior citizens, must be made in writing at the time of rental request. Included in the request shall be the purpose of the rental activities to be conducted as well as a brief description of the purpose, goals, and if the citizens are paying a fee for this activity.

Based on the information provided, the Director of the Division of Parks & Recreation will make a determination of the eligibility of a waiver.

5.9 All fees for County charges will be established by Resolution of the Leon County Board of County Commissioners.

5.10 Additional fees may be charged by the County or City for services provided above normal service level. (Examples are the permit fees that may be charged by the City or County.)

6. Cancellations

6.1 Cancellations must be made in writing and received by the Parks & Recreation Division at least seven days in advance of the use date in order to receive a refund. If notice is not received before the seven day period, the rental fee is forfeited. However, security deposits and staff set up and take down fees will be refunded. The receipt must be presented for refund to be processed.

The refund will be mailed in approximately four to six weeks. Refund checks will be made out to the entity whose name appears on the payment check and mailed to the address shown on the rental agreement.

7. General Rules and Regulations

7.1 Use of the facility is guaranteed for the period specified in the permit, use beyond that period is neither expressly nor implicitly granted. Event set-up and take down must be included in the rental period.

7.2 The minimum rental period for a building or room use is ½ day (4 hours).

7.3 Building capacities are based on fire safety codes and are not to be exceeded for any reason.

7.4 Facilities are to be left in the same conditions as before use. Chairs, tables, and other furnishings are to be returned to their designated storage place. Floors are to be swept and cleaned if necessary and trash cans are to be emptied. All decorations, fasteners, and other items brought into the facility are to be removed and disposed of properly. Decorations that mar surfaces are not permitted.

7.5 Leon County signs, forms, and other materials are not to be removed or altered unless authorized by the division representative in charge.

7.6 The Leon County Parks & Recreation Division will not be responsible for providing or supervising any specialized equipment such as cooking equipment, storage, sound reproduction or amplification equipment, stages, platforms, special lighting equipment, film projecting apparatus, power extension cords, or any other specialized equipment. The division representative in charge may disallow the use of specialized equipment for safety reasons or to ensure division policy is followed. The number of tables and chairs provided are limited to the number on site and available. Any additional tables and chairs are the responsibility of the applicant.

7.7 The Leon County Parks & Recreation Division shall not be held responsible for loss or injury incurred in the use of any facility if said loss or injury is a result of circumstances beyond the control of Leon County or its officers or agents. It is incumbent upon the user to ensure that all normal safety practices are observed. Dangerous undertakings are strictly prohibited. All accidents or injuries must be reported to a Division representative immediately.

7.8 It is not the purpose of the County to make the parks and recreation facilities available to any person, group of persons, or organizations for personal gain or private profit.

Non-profits and school events may be allowed to collect admission fees for approved Special Events (Section 11) to offset fees required by Section 5 (Fees). Admission fees will be approved by the Director of the Division of Parks & Recreation as part of the Special Event Application approval.

7.9 The division representative that may be present during the use period shall ensure the facility is open on time, clean and orderly, and the facility is used safely and properly. In no way is the division representative an employee or agent of the applicant.

7.10 Alcohol, fireworks, and weapons are not permitted on Leon County Parks & Recreation Division managed property. Tobacco products are not permitted inside Parks & Recreation Division facilities.

7.11 Vending of any merchandise is not permitted without written permission from the Parks & Recreation Division Director.

7.12 No fires are allowed except in provided barbeque grills and pits.

7.13 Individual minors or groups of minors must be properly supervised by adults when using park facilities. Groups composed of minors, including teen events, must be supervised by one (1) adult for each fifteen (15) minors throughout the rental period.

7.14 Any person or group in violation of the established rules and regulations, established laws, or constituting a public nuisance, may be required to leave the facility and premises. In addition, the Parks & Recreation Division representative may cancel the rental and be deny any future rentals (Refer to Section 8.6).

7.15 Applicants' reserved areas are those specifically designated in the permit. Other buildings, rooms, athletic fields, courts may be scheduled by other participants or remain open to the general public.

7.16 Permits/reservations cannot be transferred, assigned, or sub-let to any other group or organization for any reason.

7.17 Animals, except service animals, are not allowed in Parks & Recreation Division buildings.

7.18 The applicant is responsible for all actions, behavior, and damages caused by his/her guests/attendees.

7.19 Structures that require installation of poles, wires, wood supports, etc. must have prior approved by the Division Director or his representative.

7.20 It is recommended that the applicant or its designee occupy picnic shelters by 11:00 AM the day of the rental.

8. Denial of Rental

The Parks & Recreation Division reserves the right to deny use of facilities based on any the following criteria:

8.1 The facility is not available for the requested date and time. This would include events that conflict with Parks & Recreation Division events, conflicts with County government or related business, or if the facility is already rented.

8.2 Uses deemed potentially damaging to the facility.

8.3 There are simultaneous non-compatible uses of adjacent facilities.

8.4 The proposed activity violates Federal, State, or Local Laws.

8.5 Potential noise or sound levels deemed to be disruptive and offensive to surrounding neighborhoods and to the comfort of guest or facility visitors.

8.6 Individuals or groups that have demonstrated in previous rentals with the Parks & Recreation Division or other entities not to be in the best interest of Leon County. This may include but not limited to, non-payment, improper use, damage, failure to adequately control participants or spectators, breach of contract, non-compliance of rules, or inaccurate information provided on the application.

8.7 Activities that, due to traffic or congestion, would cause access problems for scheduled events or the surrounding community.

8.8 Activities that are offensive to the accepted community standards.

8.9 Activities that are discriminatory in nature in matters such as sex, race, religion, creed, color, or national origin.

8.10 Activities that are incompatible with Leon County mission to provide for the health, safety, and welfare of the public.

8.11 In lieu of denial of rental application, the Parks and Recreation Division may require additional permitting or security of individuals or groups whose prior rental of County facilities has resulted in documented traffic congestion, damage to facility, non-compliance with County rules and policies, or complaints of noise or offensive behavior.

8.12 Prior violations of Rules and Regulations or Policies will be cause for denial of rentals.

9. Use of facilities by Leon County Board employees

9.1 Employees and employee organizations shall be permitted to use County facilities on the same basis, and subject to the same conditions that apply to the general public. However, such use shall be limited to the extent that it does not conflict with the best interest of the County, and that the facility is not required for the use of the County, government, or other related businesses.

10. Request to use Parks & Recreation Facilities by Private Organizations on a regular basis

10.1 The purpose of this section is to provide the requirements for organizations that want to use facilities for reoccurring events.

10.2 Upon request by a private organization, the Parks & Recreation Division will verify the availability of the facility.

10.3 The Parks & Recreation Division will provide the representative with a Licensing Agreement. Upon completion of the Agreement, it will be submitted to the Parks & Recreation Director at 2280 Miccosukee Road, Tallahassee, FL 32308. A copy of the organization's 501 (c) (3), Internal Revenue Service status letter, or Florida Department of Revenue tax certificate needs to be included. All groups may be required to pay building rental fees.

10.4 Once approval or denial is given, a Licensing Agreement or Letter of Denial is sent to the organization with a copy to the Community Center Supervisor.

10.5 If approval is given, the organization makes all arrangements with the Community Center Supervisor for use of the facility. A copy of the organization's Tax Exempt form needs to accompany each payment or be on file if taxes have been waived.

10.6 A private organization is allowed to use the facility on a regular basis for 12 months with no more than two six-month extensions.

10.7 The Parks & Recreation Division reserves the right to deny the usage of a facility, based on Section 8.

10.8 Organizations are not allowed to store equipment/items at the facilities.

10.9 Organizations are not allowed to decorate facility with their literature.

10.10 The Parks & Recreation Division reserves the right to cancel the Licensing Agreement at any time due to non-payment, non-compliance with rules and regulations, or misuse of the facility.

11. Special Events

11.1 Definitions:

A. Special Event

A preplanned activity proposed to be held on Leon County park property for the purposes of entertainment, celebration, amusement, cultural recognition, arts and crafts displays, sports demonstrations and/or competitions, non-profit fundraisers, or similar activities that impact normal park operations and interfere with the use of the park by the general public, including activities that involve a caterer, vendor, party planner and/or specialized equipment. The Director of Leon County Division of Parks & Recreation will determine the capacity of a site to determine if the event can be held at the site. This determination will be based on the size of the park and the type of park. i.e.: greenways, passive, active, community center.

B. Applicant

An organization or individual that is conducting/hosting the Special Event. The Special Event Form will be issued in the name of the Applicant, and the Applicant will be responsible for submission of required documentation and for all payments and damages provided herein. This Special Event Form cannot be transferred or sublet to another party. (Refer to Section 7.16)

C. Attendance

Includes event participants, spectators, volunteers, and/or event crew.

D. County Co-sponsored Special Event

A Special Event hosted in part by Leon County and other individuals and/or organizations.

E. County Sponsored Special Event

A Special Event hosted by Leon County.

F. Event Organizer

The individual that is considered the lead planner for the activity being proposed, and will be the point of contact for the Parks & Recreation Division. .

11.2 Policy Statement:

Leon County supports Special Events to enhance the quality of life for its citizens. Leon County recognizes that there may be many social, cultural, and financial benefits in hosting special events in the County. Such benefits include a better quality of life, economic growth, increased tourism, and recreation opportunities. Recognizing the importance of Special Events, the County shall establish policies and procedures that will allow for the planning and management of personnel and financial resources in the support of such events conducted at County park facilities.

11.3 Special Event Fees:
(Refer to Sections 5 and 6).

11.4 Special Event Procedures:

A. Persons and/or organizations planning to conduct a Special Event in a County Park must complete a Special Event Form and submit it to:

Leon County Parks & Recreation Division
2280 Miccosukee Road
Tallahassee, Florida 32308

B. Submission deadlines:

Refer to Section 4.1

C. A Site Map may be required depending on scope and size of event. It should include but may not be limited to placement of things such as:

1. Barricade locations
2. Vendor locations
3. Portable restroom locations
4. Trash receptacle locations
5. Park roads requested for closure
6. Tent locations, etc.
7. Trail closures
8. Off site parking
9. Handicap parking locations

D. Security Plan may be required depending on scope and size of event. Requirements will be determined in coordination with the park staff and the local law enforcement office. Event organizer may be required to hire off duty law enforcement officers in addition to other security that may be needed on site. Events that have over 500 people present will require approval by local law enforcement prior to proceeding with other event arrangements. This request must be submitted at least two weeks prior to the event.

E. Traffic flow plan may be required depending on scope and size of event. If so, include route for run/walk, entering and leaving the event, or any other request affecting the flow of traffic. At all times an open traffic lane must be maintained for emergency vehicles to enter and leave the area.

F. Application information will be used by staff to draft a Special Event Form for use of the park.

G. A certificate of liability insurance will be required naming Leon County as additional insured in an amount predicated on the anticipated attendance, as determined by Leon County Risk Management.

H. Trash receptacles will be provided by the Parks & Recreation Division for Special Events with anticipated attendance of less than 200. If anticipated attendance is 200 or more, the Applicant must arrange for additional receptacles and dumpster(s) and provide the Parks & Recreation Division with the name and phone number of the company providing the receptacles and dumpster(s), the date of delivery, and the date of removal. Indicate placement on the Site Map, so it can be approved by the Parks & Recreation Division

I. The Applicant may be required to provide portable restrooms depending on scope and size of the Special Event as determined by the Parks & Recreation Division. Multi-day events will require daily cleaning service. Portable restrooms may be placed one day prior to the Special Event, and must be removed from the site within 48 hours after the end of the Special Event. Applicant shall provide the name and phone number of the provider, the date of delivery and the date of removal. Indicate location on the Site Map.

J. The Applicant shall provide a Clean-up Plan to explain how Applicant will ensure that all debris will be properly disposed of, how all equipment brought in for the Special Event is to be removed, and how the park and/or facility will be restored to the same condition as it was prior to the Special Event.

K. Parking for the Special Event will be required to stay within the designated parking lots at the park. All other vehicles will have to be parked off site. The Applicant will be required to submit a plan showing the location of the off site parking, permission letter from the owner to use the area, and describe how the users will be transported to and from the site of the event. All associated fees for parking must be paid by the applicant. A permit from the Department of Growth and Environmental Management for off site parking is required.

L. The Applicant will be responsible for all signage required for the Special Event.

M. The County Parks & Recreation Division will only perform additional maintenance to a site for a Special Event that complies with the "Best Management Practices" for maintaining the site for the use it was designed. Anything requested by the Applicant that does not conform to "Best Practices" as articulated in the Florida Forest Stewardship Management Plan will be denied.

N. The number of Special Events allowed at any one site may be limited by the County. Applicants may be required to combine their Special Event with other events to reduce the number of Special Events held per site.

O. The Applicant shall sign the Special Event Form and return it to the Parks & Recreation Division with payment of all fees and deposits within 14 days of its receipt. If not received during the 14-day period, the Parks & Recreation Division will cancel the Special Event reservation request. The insurance certificate confirming the required coverage is due a minimum of 14 days prior to the Special Event date. Failure to provide the above will result in the forfeiture of all pre-paid fees and the use of the park.

P. A damage deposit is required in addition to the regular event fee. The deposit amount shall be $100 or 25% of the fee, whichever is greater. If the reserved area is found to be in good condition following the event, the deposit will be refunded four - six weeks after the Special Event. If repairs are needed, the Applicant's deposit will be utilized to repair damage to park property resulting from the Special Event. In addition, the Applicant will also be responsible for the cost of any damage repair over and above the deposit amount.

Q. If the Applicant cancels in writing at least 30 days prior to the event, then fees and deposits paid can be applied to another event or will be refunded. If the Applicant cancels in writing 15 – 29 days prior to event, then the total deposit and one half of the fees can be applied to another event or refunded.

If notice is not received before the 14-day period, the rental fee is forfeited. However, security deposits and staff set up and take down fees will be refunded. The receipt must be presented for refund to be processed. The refund will be mailed in approximately four to six weeks. Refund checks will be made out to the entity whose name appears on the payment check and mailed to the address shown on the Special Event Form.

R. Applicant is required to obtain all permits, licenses and certificates required by County, City, State, Federal, or other applicable regulatory agencies. Examples of these are the County Temporary Use Permit (Ordinance 10-6.804.A), and the City Tent Permit (Land Development Code Section 10-423).

S. Failure to abide by Parks & Recreation Division Rules and Regulations will result in forfeiture of the Applicant's deposit and may result in future event privileges being suspended.

T. Leon County EMS (LCEMS) shall review any request for events hosting 500 people or more. The determination for the need of any additional LCEMS resources beyond those available in the area will depend on the venue, temperature, type of event, remote location, ingress and egress in the area, potential helicopter landing zones, and other factors that could impact health and safety. A request for the need of additional LCEMS resources shall be provided at least two weeks in advance. A minimum of three hours of coverage is required for any event that needs coverage. The following will provide guidance for coverage, but could be altered, based on individual events. The number listed would be considered minimum staffing.

Number Attendees and Participants Combined	**Personnel Required at Passive Attendee Event**	**Personnel Required at Active Attendee Event**
500 – 5,000	2	3
5,000 – 10,000	3	4
10,000 – 15,000	4	6
15,000 – 25,000	5	8
25,000 – 35,000	6	10
35,000 – 50,000	8	12
50,000 – 65,000	9	15
65,000 – 80,000	11	18
80,000 – 95,000	13	20
95,000 – over	15 +	22 +

Note: LCEMS does not provide water rescue.

U. The Tallahassee Fire Department (TFD) shall review any request for events hosting 500 people or more. The determination for the need of any additional fire resources beyond those available in the area will depend on the venue, temperature, type of event, remote location, access and egress in the area and other factors that could impact fire and life safety. Request for need of additional fire resources shall be provided to TFD at least two weeks in advance. A minimum of three hours of coverage is required for any event that is determined to need coverage.

11.5 Denial of Use

Refer to Section 8.

Canopy Road Related Code Provisions in the City of Tallahassee and Leon County
Updated August 2011

This document provides the principal City and County regulations related to designated Canopy Roads. The regulations have been grouped by topic area for both the City and the County to facilitate use by individuals that may work in both jurisdictions. This intended to be a useful guide and is not a substitute for directly referring to the relevant land development code. If you have any questions, please contact Brian Wiebler at 891-6400.

Definitions Designating Road Segments and Protection Zone Locations

City	County
City Sec. 5-12. - Definitions.	County Sec. 10-1.101. - Definitions.

Standards for Development on Designated Canopy Roads

City	County
City Sec. 5-81. - Conservation and preservation area development standards.	County Sec. 10-4.202. - Pre-development environmental analysis reviews.-Standards for the protection of natural features- Conservation areas
City Sec. 10-302. - Canopy roads overlay district.	County Sec. 10-6.707. - Canopy roads overlay district.

Impact Analysis and Permit Requirements on Designated Canopy Roads

City	County
City Sec. 5-55. - Environmental impact analysis.	County Sec. 10-4.206. - Application requirements for the removal of trees, generally; and, for the repair and maintenance of existing lawfully established structures and fences for lands within the canopy road protection zone.
City Sec. 5-56. - Environmental management permit.	

Tree Protection Requirements on Designated Canopy Roads

City	County
City Sec. 5-83. - Tree protection and removal standards.	County Sec. 10-4.362. - Protected trees.
	County Sec. 10-4.363. - Tree protection requirements.

Subdivision Design Standards on Designated Canopy Roads

City	County
City Sec. 9-112. - Subdivision design standards.	County Sec. 10-7.502. - General layout design standards.

Commercial Site Location Standards on Designated Canopy Roads

City	County
City Sec. 10-174. - Commercial site location standards.	County Sec. 10-6.619. - Commercial site location standards.

Off-Site Advertising Signs on Designated Canopy Roads

City	County
City Sec. 7-64. - Off-site advertising signs.	County Sec. 10-9.106. - Canopy roads.

Communication Towers and Antennas

City Sec. 10-425. - Communication antennas and communication antenna support structures.

Additional Leon County Specific Code Provisions

Sec. 10-6.305. - Supplemental nonconformity regulations.
Sec. 10-7.202. - Revised 2.1.9 Family Heir Subdivision Standards.
Sec. 10-4.326. - Vegetation removal.
Sec. 10-4.328. - Best management practices for conservation and preservation areas.
Sec. 10-6.815. - Rural small-scale plant nurseries.

Miccosukee Canopy Road Greenways
Citizen's Advisory Committee

Meeting Minutes
of
March 31, 2011

MEMBERS PRESENT:
Commissioner Akin Akinyemi, Brian Corbin, Thelma Crump, Randie Denker, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Rob Lombardo, Terri Messier, Pat Plocek, Stan Rosenthal, Robin Turner, and Don Whitehead

NON-MEMBERS PRESENT: Ed Carney, Leigh Davis, Susan Drake, and Charles Fletcher

WELCOME – Pat Plocek welcomed the members to the meeting.

INTRODUCTIONS – Each member introduced him/herself and explained his/her interest in the Greenways.

SUNSHINE LAW – Pat Plocek informed the Committee that it falls under the Sunshine Law and encouraged those who were unfamiliar with the Sunshine Law to visit www.myfloridasunshine.com for more information. Explanation was provided by staff regarding the difference between a Board-appointed decision making committee and a focus group. It was further clarified that this committee is a decision making body.

RESOLUTION – Mr. Plocek went over the County resolution and the charge of the committee.

TIME LINE – Mr. Plocek went over the time line and the dates of major items. Target date is January 15, 2012 to submit the plan to the State DEP.

ELECTION – Rob Lombardo was nominated for Chairperson by Robin Turner and 2nd by Randi Denker. Julian Dozier was nominated for Chairperson by Steve Hodges and 2nd by Rob Lombardo. Rob Lombardo withdrew his name from the Chairman's position, and Julian Dozier was then elected by unanimous vote as Chairperson.

A motion was made by Steve Hodges and 2nd by Randi Denker to nominate Rob Lombardo as Vice-Chairman. The motion passed unanimously.

APPROVAL OF BY-LAWS – The entire committee reviewed the by-laws. Rob Lombardo made the motion to approve by-laws with the following changes: amend section 5.1 to clarify that "...a supermajority shall comprise no fewer than two thirds or

sixty-six percent of the members present" and amend section 7.3 to read Miccosukee Canopy Road Greenways property instead of J. R. Alford Greenways property. The motion was 2nd by Zoë Kulakowski; all were in favor to move the motion.

START – Mr. Plocek requested that the committee review all the handouts and to look and consider areas on the checklist such as wetland, outstanding landscape, etc. for public to understand why it's a sensitive area.

Robin Turner encouraged the committee that they can contact agencies and get information on Management Plan. Pat Plocek stated that agencies will be contacted and invited to meetings.

Thelma Crump asked if it was okay to bring personal knowledge and/or history to the meeting. All committee members were encouraged to do so.

GENERAL DISCUSSION – Discussion ensued regarding the resurfacing of the existing main trail and whether the type surface being installed was within the best interest of keeping with the Greenway's natural habitat and/or providing better access to a variety of users. Various opinions were voiced.

The general consensus of the committee was that trail surfacing and maintenance could be addressed during this process, but the current activities did fall within the realm of the current Management Plan.

Leigh Davis informed the Committee that she is a staff member of the Committee. She asked that any documents be sent to her at DavisLe@leoncountyfl.gov. Please try to get information to her by April 14, 2011.

Pat Plocek asked the Committee members to read the first 23 pages of the Management Plan before next meeting. He also asked the Committee members to make a grand list of changes. Pat also stated that he is trying to get a grand reopening of the trail and will notify members on date.

NEXT MEETING DATE - The group agreed that the next meeting date would be April 18, 2011 at 5:30 PM at the Public Works office. Information will be sent out to those members that were not present at the meeting. *(At a later point in time it was determined that April 18 was a religious holiday and the meeting was rescheduled for Thursday, April 28, 2011.)*

Miccosukee Canopy Road Greenways
Citizen's Advisory Committee

Meeting Minutes
of
April 28, 2011

MEMBERS PRESENT:
Brian Corbin, Thelma Crump, Randie Denker, Julian Dozier, Steve Hodges, Zoe Kulakowski, Rob Lombardo, Pat Plocek, Stan Rosenthal, Robin Turner and Don Whitehead

NON-MEMBERS PRESENT: Leigh Davis and Tony Park

CALL TO ORDER – Chairman Julian Dozier welcomed the members to the meeting.

ADOPTION OF THE MINUTES – Robin Turner clarified that she encouraged the committee to contact the agencies to generate reports (not for general questions about the Management Plan). Steve Hodges moved to accept the minutes with the modification made by Ms. Turner. Brian Corbin seconded the motion. The motion passed with 10 to 1 with Ms. Denker opposed.

ADDITIONAL HANDOUTS – Two additional handouts were provided to the committee for review. The first were the comments from Ms. Crump regarding her suggestions/changes to the management plan. The second was a copy of an e-mail written to Ms. Denker from Nancy Ziegler regarding her opposition to the stone dust construction occurring on the main trail.

MAJOR ISSUES OVERVIEW – Rob Lombardo stated that he was impressed that so many members took the time to read and write comments about aspects of the Management Plan.

MANAGEMENT PLAN DISCUSSION –
Steve Hodges reminded the committee that there is a new format; it does specifically require management issues, goals and objectives. He also reminded the committee that anything written has to be approved by the State and sent to the Cabinet for approval.

The committee discussed the need for more educational signage on the trails and at the trailheads. It was recommended that the County look at putting educational signage at areas of historic or natural interest to explain what the public is traveling thru.

Rob Lombardo recommended that the committee look at dividing the greenways into four sectors and writing the plan in a sector-based format. He recommended that it be divided into an area from Fleishmann Trailhead to Edenfield Trailhead; Edenfield Trailhead to Miles Johnson Crossing; Miles Johnson to Argyle Crossing; and Argyle Crossing to the Crump Trailhead. All agreed with this division.

A short discussion occurred regarding security and dogs off leashes. Mr. Plocek advised the committee that his staff does not have police power and therefore has to call for assistance when security and/or animal control is needed on the greenways. Most times by the time the appropriate authority arrives, the problem person has left.

Ms. Denker recommended that the remaining the trail system be left in a natural state rather than covered with the stone dust surface. Others suggested that the main trail system be covered with the stone dust and that all other trails be left with grass or dirt. However, no formal vote was taken on the issue.

Additional discussion took place regarding the State's new format for the Plan as reflected in the Compliance Checklist. Steve Hodges volunteered to prepare a first draft of Goals and Objectives for the Committee's review and comments. All agreed to proceed in that manner. The draft will be sent to committee members prior to the next meeting so that it can be reviewed.

NEXT MEETING DATE - The group agreed that the next meeting would be May 12, 2011 at 5:30 PM at the Public Works office. Information will be sent out to those members that were not present at the meeting.

Miccosukee Greenways
Management Plan

Meeting Minutes
May 12, 2011
As amended

MEMBERS PRESENT:
Akin Akinyemi, Brian Corbin, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Rob Lombardo, Pat Plocek, Robin Turner and Don Whitehead

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – Chairman Julian Dozier called the meeting to order at 5:40 pm.

ADOPTION OF THE MINUTES – Robin Turner clarified that one person from the committee should contact the agencies for reports, but that agencies are always available to answer questions. Motion to accept minutes as amended was moved by Pat Plocek and seconded by Rob Lombardo. The entire committee was in favor.

GENERAL DISCUSSION - The Chairman briefed everyone as to the handouts. A discussion ensued about the best way for the committee members to communicate their suggestions and review the material. The committee decided to use Handout #4 (Goals and Objectives with Comment Inserts – as prepared by Rob Lombardo) to review the goals and objectives.

Steve Hodges stated that he reviewed Robin Turner's comments, which were a generic version of goals and objectives. He also stated that the goals and objectives he drafted will have to be modified to fit the State requirements and the core categories.

A key question was raised by Don Whitehead regarding future population density and how the committee wants the public to view the greenways. Should the greenways be promoted as a park or a natural facility with limited allowable uses? He stated that as of now, the general public has some idea of the greenway but as more and more people move into the surrounding perimeter, they are going to want to use the greenway for their particular activity. Mr. Dozier stated that fortunately the lease with the State clarifies some of that. Robin Turner stated that there may be a need for a marketing component through the Tourist Development Council. Commissioner Akinyemi concurred and encouraged staff to reach out to the TDC.

Rob Lombardo suggested that the Management Plan may want to include a listing of active parks so as to redirect folks who are more interested in those types of facilities. He also stated that a lot can be done in writing on how the Greenway should be handled and that the Management Plan will be an active document to fight for what we want.

Signage was also discussed as a useful tool for communicating and educating the public with regard to Greenway allowable uses. Mr. Plocek indicated that the staff has already embarked on a new signage project.

Brian Corbin informed the committee that the Alford Greenways Committee discussed including a glossary of terms as an attachment to the Management Plan for the purpose of providing clarity. The committee was receptive to this idea for the Miccosukee Plan as well.

A brief discussion regarding access points also took place. Mr. Plocek indicated that the County already has an Access Policy and that it should be referenced when creation of new access points are requested.

REVIEW OF PROPOSED GOALS AND OBJECTIVES and MANAGEMENT PLAN DISCUSSION –

Goal 1: ***Improve natural communities and natural habitat.***

Objective 1.1: Utilize prescribed burning in appropriate upland areas as a management tool.

Activity 1.1.1: Prescription-burn __ acres per year.

Mr. Plocek stated that prescribed burns only occur from Miles Johnson to Crump Road. These are on two year rotation basis. Other areas are not burned due to schools in the area, the interstate and residents in the area. Prescribed burns are based on need. County staff works with Tall Timbers and State Forestry. Prescribed burns are for invasive control.

Jay Liles asked if future development will impact prescribed burn. Mr. Plocek stated that it will limit what can be done. Mr. Liles suggested that agreements should be formed with future developers. He also asked if mechanical harvesting will allow new ways to fight invasives in lieu of burning.

Objective 1.3: Restore forested areas impacted by monoculture, invasives, or other impacts to a more native ecosystem configuration.

Rob Lombardo pointed out that there was duplication in the language of Objective 1.3 and Objective 4.3. It was then suggested that Objective 4.3 simply refer back to Objective 1.3

Further discussion regarding Objective 1.3 questioned the definition of "natural communities" and whether that meant preserving the open fields and vistas/maintaining the plantation management approach.

Pat Plocek raised concern over Activity 1.3.4., to conduct at least one public event per year in which long leaf pine and other native trees are planted since space for plantings is limited. It was discussed to make the activity more general by simply stating "one public event per year", not the kind of event.

Objective 1.4: Restore wildlife habitat.

This objective was discussed only briefly with regard to what quantifiables can be used. In addition the inclusion of a butterfly garden was mentioned as an idea, but those are difficult to maintain.

Goal 2: ***Provide public access and passive/resource-based recreational opportunities to all citizens of Leon County.***

Objective 2.5: Continue to provide and to expand existing interpretive and educational trailhead/trailside signage and brochures.

Ms. Crump raised concerns about public interaction with wildlife. The group then discussed that Objective 2.5 should be expanded to include educating the public on all natural resources specifically as it might relate to wild animals and the potential danger to users and from users. It was suggested that a new 2.5.3 activity be added to address these concerns.

Concluding discussions for the meeting, the Committee decided to create a Technical Subcommittee on Goals and Objectives. Steve Hodges, Robin Turner, and Pat Plocek will comprise the subcommittee. A meeting date of May25, 2011 was established to be held at the Renaissance Center at 10 a.m. The full Committee will then review the updated Goals and Objectives at its next meeting.

NEXT MEETING DATE - The group agreed that the next meeting date would be June 8, 2011 at 5:30 PM at the Public Works office. Information will be sent out to those members that were not present at the meeting. The Committee also requested that sector maps be provided at the June 8 meeting.

The meeting adjourned at 7:25 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
June 8, 2011
As amended

MEMBERS PRESENT:
Akin Akinyemi, Brian Corbin, Thelma Crump, Steve Hodges, Zoë Kulakowski, Jay Liles, Rob Lombardo, Tony Park, and Robin Turner

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER –Rob Lombardo, Vice Chairman, served as Chairman due to the Chairman's absence. The Chairman called the meeting to order at 5:45 pm with a quorum present.

ADOPTION OF THE MINUTES – The Chair asked the Committee to review the minutes. Ms. Crump indicated that on page 3, her comments were not complete. She asked to add to the minutes "...and from users." In addition she asked about Activity 2.5.3. It was communicated that those activities were now captured under Objective 8. With discussion complete, Jay Liles moved the minutes as amended and it was seconded by Akin Akinyemi. The motion passed unanimously.

REVIEW OF REVISED GOALS AND OBJECTIVES –

The Chairman explained that Attachment #2 was the revised goals and objectives that had been written by the Technical Subcommittee on Goals and Objectives to meet the State requirements. In addition, Leigh Davis inserted previous committee comments into the document so as not to lose the information and to facilitate discussion under each section.

The Chairman further indicated that the committee now had an acceptable framework from which to deliberate and proceed to lead the committee through the documents and the associated comments.

Goal 1: ***Improve natural communities and natural habitat.***

It was observed that Objectives 1.1 and 1.3 had specific numbers of acres associated with them. Robin Turner, a member of the technical subcommittee, informed the group that those numbers had been taken from the County's bi-annual report.

The Committee also discussed modifying the language in Activities 1.1.1 and 1.2.1 to reference the Forest Stewardship Plan and consultation of the County Forester. Those Activities will now read:

Activity 1.1.1: Utilize prescribed burning in appropriate upland areas as a management tool as outlined by the Forest Stewardship Plan and approved by the County Forester.

Activity 1.2.1: Remove/thin overgrown understory vegetation and /or undesirable successional species where necessary as outlined by the Forest Stewardship Plan and approved by the County Forester.

Zoe Kulakowski explained that her comments under Objective 1.1 were a desire to see more detail as it relates to prescribed burns. Steve Hodges responded that such details and processes were better addressed in the narrative section of the Plan and not in the Goals and Objectives section.

Under the discussion of Objective 1.3, there was consensus to add an activity specifically addressing the protection of the Oak/Hickory area of the Greenway. In addition, per a suggestion by Zoe Kulakowski and upon discussion by the group, an additional activity shall be added somewhere in the Goals and Objectives to address installation of a visual barrier under/near the transmission line. It was also determined that Rob Lomardo's comment, "replanting around trail resurfacing projects" was more appropriate and should be added to language in Objective 6.3.

Tony Park again sought clarification on how the number of acres (350) was derived. Robin Turner indicated that this came from a report previously supplied by the County.

Activities 1.3.3, 1.3.4, and 1.3.5 will be deleted from this Objective since they have been moved and are reflected in 8.4.3, 8.4.4, and 8.4.5 respectively.

Discussion then shifted momentarily to Objective 8. Specifically, the Committee asked that Activity 8.4.3 be changed to read, "Establish areas, where appropriate, for herbaceous plants, shrubs, or trees intended to attract native birds and butterflies." Thelma Crump expressed her continued concern over protecting the Greenway as a resource for wildlife (related to 1.3.5/8.4.5). The Committee agreed to revisit this concern in more detail when discussion all of Objective 8.

Objective 1.4. - Again it was consensus by the group to include language referencing the Forest Stewardship Plan and the County Forester. Language utilized is Activities 1.1.1 and 1.2.1 is sufficient.

As the group moved on to discussing Goal 2:

Goal 2: ***Provide public access and passive/resource-based recreational opportunities***

Brian Corbin raised the issue of the status of the glossary of terms so that active versus passive could be defined. Robin Turner indicated that she had been given specific direction regarding the definitions of each of those terms and could elaborate whenever necessary. Rob Lombardo suggested that for the purpose of the Committee's current discussion that active be considered as organized sporting/competitive athletic events.

Lengthy discussion then ensued about the language in Activity 2.1.2 prohibiting "organized sporting events, ball fields and team sports." In particular, Brian Corbin raised concerns that prohibiting an organized sporting event might have unintended consequences and that it should really be more about capacity/size and scope limitations rather than simply the term organized sporting event. It was further pointed out that Activity 2.1.2 mixed activities with facilities. The two should possibly be separated.

Objective 2.2. – The committee agreed that language should be added referencing the County's existing Access Policy, thereby linking it to the plan. In addition, Steve Hodges shared with the group his conversation with Matt Klein at DEP regarding carrying capacity and how that number is achieved.

Throughout the meeting Steve Hodges was referencing the Table of Contents and other, more narrative sections that would be in the Plan. The Committee asked for Steve to provide a copy of the Table of Contents that he/the committee should be utilizing as discussion continues. Steve will provide that to Leigh Davis for distribution.

As the meeting wrapped up, Thelma Crump advised that the comments missing identifying initials on page 6 were hers. Leigh Davis will update the document to reflect that.

Akin Akinyemi requested that on future agendas a section be included for New Business and Old Business. Staff will modify future agendas to reflect the change. He also asked that a large map be brought to all future meeting for visual reference. Lastly, he raised the issue of Safety on the Greenways. Robin Turner responded that there were sections that would address that and the committee would be discussing those in the future.

Rob Lomardo pointed out that Sector Maps 3 and 4 identified a crossing in the wrong place. Staff will have that corrected and provide new maps at the next meeting.

NEXT MEETING DATE – The next meeting was set for July 13 at 5:30 pm in the Public Works Gathering Room. Committee members were asked to continue reviewing the revised Goals and Objectives and come prepared to provide input regarding their comments or any additional thoughts.

The meeting adjourned at 7:30 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
July 13, 2011
As amended

MEMBERS PRESENT:
Brian Corbin, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Rob Lombardo, Scott Mitchell, Tony Park, and Robin Turner

NON-MEMBERS PRESENT: Leigh Davis and Chris Vice

CALL TO ORDER – The Chairman called the meeting to order at 5:45 pm with a quorum present.

INTRODUCTION OF NEW MEMBER – Scott Mitchell was introduced as a new member, appointed by Commissioner Akin Akinyemi and replacing Randie Denker. Mr. Mitchell is a daily user of the Greenway and very interested in serving.

ADOPTION OF THE MINUTES – The Chair asked the Committee to review the minutes. Ms. Crump suggested that the "CALL TO ORDER" section be amended to reflect Julian Dozier as Chairman and Rob Lombardo as Vice Chair, serving as Chairman in Mr. Dozier's absence. In addition she pointed out a typographical error in paragraph one under Goal 1. The minutes should read "...Objectives 1.1 and 1.3...". Ms. Crump also asked whether the Safety issue that had previously been raised by her and Comm. Akinyemi was still under discussion (those points were taken from comments that she submitted under Activities 1.4.5., 2.4.1 and 2.5.1). Ms. Davis indicated that that was her understanding. Final comments from Ms. Crump pertained to the generic table of contents (not a part of the minutes). Her questions regarding that were addressed by Steve Hodges.

Rob Lombardo moved the minutes with the amendments. Brian Corbin seconded the motion. The motion passed unanimously.

DISCUSSION OF TIMELINE – Leigh Davis presented a proposed timeline for Committee which was provided to the group as Attachment #2. She advised the group that the plan was originally due for final approval by the State in February 2012. To meet that deadline, a draft plan would have to be submitted no later than November 2011 (95 days prior to final approval). It is apparent that meeting that deadline will not be possible. Staff has spoken with the State and been advised that there is no penalty for being late. However, having some timeline to guide the Committee is suggested by staff.

The Committee then discussed the proposed timeline as presented by staff. It was general consensus that the proposed timeline did not allow for the Committee to fully complete its work. Rob Lomardo suggested that committee work extend, at a minimum, into October.

Some discussion and explanation then followed regarding how comments had initially been submitted and incorporated into the Goals and Objectives document.

Ms. Davis suggested that as the committee continues to work through the Goals and Objectives that staff begins to create the shell for the other sections of the plan as identified in the generic

Table of Contents that has been distributed to the group as Attachment #3. Scott Mitchell asked if committee members would be tasked with drafting sections of the plan. Ms. Davis indicated that staff (Steve Hodges and she) would be responsible for that task, unless otherwise directed. Draft verbiage would then be brought back before the committee to word-smith, change completely, edit, etc.

The Chairman then suggested bi-weekly meetings over the next three months. Tony Park expressed some concern for staff and the committee members that serve on both Greenways committees as it relates to time and commitment to other responsibilities. Mr. Park agreed that he would rather take time to stretch out the process as suggested by Mr. Lombardo, rather than over-commit volunteer committee members and staff.

Jay Liles offered that he thinks things would work best if a time certain was established as opposed to leaving the process wide-open. For example, he suggested that the group set as its goal to have Goal 2 accomplished within the next two meetings.

The Chairman summarized that for the letter to the State things be kept general. Such as: the committee is meeting very often; the plan will be submitted to the County Commission by the end of 2011 or early 2012; and the plan will be submitted by the third/fourth quarter of 2012.

It was agreed that a working draft of the complete plan should be available by mid- to late September.

REVIEW OF REVISED GOALS AND OBJECTIVES –

Prior to discussion resuming about Goals and Objectives, Steve Hodges assured the Committee that, to his best ability, every comment would be addressed in some form or fashion as we move through the process. Robin Turner reminded the group that Goals 1 – 8 (Section 4 of the Management Plan) requires measurable and quantifiable values. All sections of the plan after that are utilized to elaborate on how the managing agency is going to accomplish the eight goals

Goal 2: ***Provide public access and passive/resource-based recreational opportunities***

Activity 2.1.2. - The Chairman inquired of Robin Turner as to whether it was appropriate to have an activity such as this that expresses prohibitions. Ms. Turner responded that the Committee could have as many activities as they wanted, but that any activity listed will have to have a budget line item associated with it.

The Committee had further discussion with regard to the most appropriate place for a list of prohibited uses. Steve Hodges suggested that the actual list of uses be incorporated into the Public Access and Use section of the plan. Furthermore, this section should be structured to indicate Allowable Uses; Limited Uses; and Prohibited Uses.

There was committee consensus that the list of uses (allowable or prohibited) be moved to the Public Access and Use section and that the activity, itself, 2.1.2, should be a more general statement such as: *"Enforce the prohibited uses as referenced in the Public Access and Use Section of the Plan."*

Deliberations continued regarding what the prohibitions should be, particularly the language associated with "organized sporting events." Ms. Crump inquired as to how the County can mandate what events take place. Mr. Lombardo responded that there is a

permitting process and a County policy pertaining to "Use and Scheduling of Parks & Recreation Facilities". Mr. Lombardo continued by saying that the permits were designed to prevent large events with the need for lots of parking and people.

Ms. Kulakowski inquired as to whether those events were defined somewhere as to what a passive park would allow. Steve Hodges shared that part of that is governed by the money that was used to purchase the property. He further stated that fundamentally he understands passive recreation or resource based recreation to be something that you "go to" to recreate in and enjoy. Conversely, active recreation can be conducted anywhere. Ms. Crump embraced that concept and likes the fact that the greenways are passive and would not endorse activities such as firework displays to be held at the facility. She further expressed that she supports the way Activity 2.1.2 is written with regard to the prohibited activities (hunting, fishing, boating, camping, use of unauthorized motorized vehicles, and organized sporting events, ball fields, and team sports).

Discussion then focused on how this group might choose to define passive. Scott Mitchell suggested that "passive use" might be defined as a use that did not require any facility be built other than those that currently exist on the property.

Robin Turner expressed that, she believes, the concern of building ball fields is moot because the Governor and Cabinet have already expressly prohibited ball fields on the property. She also stated that a definition for passive park can be obtained from the State Comprehensive Outdoor Recreation Plan. Committee members asked for a copy of that definition be provided for review.

Rob Lombardo suggested that the Committee create a list of allowable uses, those things that might be limited (i.e. a running event that can meet the permitting/special events requirements), and those things that would definitely be prohibited. It was also suggested that consideration of the scope and size of an event be utilized for deeming a given use be prohibited. Mr. Lombardo believes this can be dealt with through the County's Use Policy.

Brian Corbin expressed that as long as an event fits the other parameters placed on the Greenway like parking, safety, etc., that an organized event should not be prohibited. Julian Dozier said he did not think running and mountain biking events should be expressly prohibited. He is inclined to have the plan say something to the effect of, "If it meets the Use Policy and has fewer than 100 participants and parking fits within the designated areas then such events/activities can go forward and seek a special events permit."

Ms. Kulakowski cautioned, that based on her experience, if there is something the group does not want to occur on the Greenway that it be expressly stated. Otherwise, policies can change over the years that might open the door for initially unwanted activities.

The Committee then turned to the issue of unauthorized motorized vehicles and approaches of how to address it in the plan taking into consideration Federal, State, and Local ADA requirements. Jay Liles suggested that language be inserted in the plan that prohibits gas-powered vehicles with the exception of County maintenance vehicles.

However, Robin Turner, spoke of the Department of Justice ruling and said that it basically allows for people in need of ADA accommodations to have anything they want.

Conversation went back and forth about whether based on the Dept. of Justice ruling we could include a prohibition against gas-powered vehicles as suggested by Mr. Liles. Some members thought we could, others thought we couldn't.

In the end, the general consensus seemed to be to have some prohibition language for the gas-powered vehicles and run it past the County Attorney's Office. Tony Park advised the Committee that the Board of County Commissioners recently adopted an Ordinance regarding power-driven mobility devices. He suggested, and it was agreed by the Committee, that staff provide a copy of that Ordinance at the next meeting so that this discussion could be continued. A final comment made by Mr. Lombardo was that maybe a way to approach the motorized vehicle issue was through the noise ordinance. The Committee will readdress this at a future meeting.

Discussion then turned to whether the Committee would be in favor of prohibiting paved trails. Most committee members seemed content with the shell composite that is being utilized now. There was a motion made by Jay Liles and seconded by Rob Lombardo that there be a prohibition expressly stated on paved (concrete and asphalt) recreational trails. The motion passed unanimously with Robin Turner abstaining. Leigh Davis asked for clarification with regard to which section of the plan this would fall. Steve Hodges and Robin Turner clarified that this should be included in Development section and the Public Access and use section.

The Chairman restated that Objective 2.1 would read: Maintain existing public uses, access, and recreational facilities to provide for an optimal daily carrying capacity of 1,000 visitors/day. Robin Turner expressed that that number was recalculated by the State and is now at 1,848. The Chairman advised that for now the number would be 1,800.

Activity 2.1.1. – The language was affirmed.

Brian Corbin's comment regarding water fountains was discussed. In particular, Mr. Lombardo suggested they be placed at every trailhead. Steve Hodges indicated that it was already covered in Activity 6.2.3. The Committee directed that water fountains should also be incorporated more specifically into the Development section of the Plan.

Activity 2.1.2 – The new language is: *"Enforce the prohibited uses as referenced in the Public Access and Use Section of the Plan."*

Objective 2.2: Develop additional public access and recreational opportunities, including trails, to provide for an optimal daily carrying capacity of 2,000 visitors/day.

Rob Lombardo suggested that the County's Access Policy be referenced in some form or fashion under this Objective. Ms. Davis suggested that additional language simply be added at the end of the Objective to say, "...in accordance with the County's Access Policy." There was general consensus to place it there.

Activity 2.2.2 – Shall be modified to reflect that this activity should be done "in accordance with a given Sector."

The Sectors, then, will be identified in the Development section of the Plan and possibly some guiding criteria. What will the criteria be for expanding a trail from a natural trail to a hardened surface trail.

Tony Park advised the group that the County only maintains multi-use trails.

The Chairman advised the group that the Committee would begin discussion on Objective 2.2 at the next meeting. He also expressed his desire to get through the rest of Goal 2 at the next meeting. If Committee members have comments that they would like to share with the group prior to the next meeting, they should send them to Leigh.

NEXT MEETING DATE – The next meetings were set for Tuesday, July 19 and Wednesday, July 27 from 5:45 pm to 7:45 pm in the Public Works Gathering Room. Committee members were asked to continue reviewing the revised Goals and Objectives and come prepared to provide input regarding their comments or any additional thoughts.

The meeting adjourned at 7:30 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
July 19, 2011
Approved as presented

MEMBERS PRESENT:
Brian Corbin, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Rob Lombardo, Scott Mitchell, Tony Park, Robin Turner, and Don Whitehead

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – The Chairman called the meeting to order at 5:45 pm with a quorum present.

ADOPTION OF THE MINUTES – Zoe Kulakowski asked for the committee to receive an electronic copy of the County's "Use and Scheduling of Parks & Recreation Facilities". Ms. Crump clarified the change in language that she had suggested for the "CALL TO ORDER" section from the June 8, 2011 meeting. "....Rob Lombardo as Vice Chair, serving as Chairman in Mr. Dozier's absence." Furthermore, she asked that with regard to the Safety issues that the minutes reflect the sections in which concerns/comments were expressed. Those sections were Activities 1.4.5., 2.4.1 and 2.5.1.

Rob Lombardo moved the minutes with the amendments. Brian Corbin seconded the motion. The motion passed unanimously.

REVIEW OF REVISED GOALS AND OBJECTIVES –

The Chairman indicated that the group would begin discussion with Objective 2.2.

Objective 2.2: ***Develop additional public access and recreation opportunities including trails, to provide for an optimal daily carrying capacity of 2,000 visitor/day, <u>in accordance with the County's Access Policy.</u>***

<u>Activity 2.2.1.</u> - There were no changes to the verbiage.

<u>Activity 2.2.2</u> – Develop design, construction and maintenance criteria for existing and new trails, <u>in accordance with the trail sectors.</u>

The Chairman inquired of Ms. Kulakowski as to whether her comment regarding fertilizer had been addressed. She responded that her point was if there is an area that is a high traffic area, simply utilizing fertilizer would not restore the turf. Instead, she suggested that the land manager would be better in recognizing it as a high traffic area and utilize alternatives such as wood chip mulch or hardened trail surface. She further stated that if it is an area that is not intended for traffic, fertilizer to restore the surface would likely not suffice either. The land manager would need to place some deterrent to suppress continued use.

Rob Lombardo suggested that Activities 6.1.4 and 6.3.3 might cover her concerns pertaining to repairing facilities experiencing wear and erosion. He expressed concern that 6.1.4 did not expressly "state due to the impact of over-use or human use". Steve Hodges stated that the wording is intentionally general to cover a variety of impacts be it human, equestrian, weather/tropical storm, or other things that would cause environmental impact.

Mr. Lombardo also suggested that comment number two, under Activity 2.2.2, regarding establishing standards for the trails themselves was also being addressed in Section 6, Capital Facilities and Infrastructure.

Regarding the third comment, pertaining to "paved...hard surface trail" the committee has already addressed that at the July 13, 2011. (In fact, a motion passed to expressly state that paved trails (concrete or asphalt) be prohibited.

The last comment, from Mr. Liles, regarding motorized vehicles was also addressed at the July 13, 2011 meeting. (In the end, the general consensus seemed to be to have some prohibition language for the gas-powered vehicles and run it past the County Attorney's Office.)

Activity 2.2.3 – Pursue acquisition or use of additional adjacent properties as they become available, consistent with other existing local, regional, and state land acquisitions, trails, and other related plans and planning activities.

There was discussion to remove the entire Activity. Some expressed they believed there would be no additional land to acquire along this Greenway. Others indicated that there might be a potential acquisition at the corner of Crump and Miccosukee. Steve Hodges argued for the inclusion of this language. Scott Mitchell commented that he, too, thinks we should not limit ourselves in the event that something adjacent does become available. Robin Turner pointed out that in terms of funding this Activity, that the funding dollars would not be tied to actual acquisition, but instead be a reflection of staff pursuit of acquisition. As such, this activity does not require significant dollars. Tony Park pointed out that this is State land, and that any additional acquisition should come from State dollars, not local dollars. Rob Lombardo suggested, then, that the word "acquisition" might not be the right word. The Chairman responded that acquisition did not necessarily mean purchase but could be acquisition through donation, exchanges, or otherwise. He further went on to suggest that the words "or use" be inserted into the Activity to more clearly express all alternatives that might be associated with adjacent lands.

There was general consensus then to leave the Activity in the plan, but include inserting the language "or use."

Activity 2.2.4 – "Encourage trail use among local citizens as a public health benefit" will be moved into Objective 2.5 and Objective 2.6 and reworded.

Steve Hodges suggested that this activity be stripped out and incorporated into Objective 2.5 and Objective 2.6.

General discussion then followed as related to the "public health benefit" language; how to best promote the benefits associated with the Greenway; and encouraging local experts to volunteer and assist with interpretive education programs.

The general consensus and thoughts of the committee were to write language that encourages trail use among local citizens emphasizing health benefits, natural beauty of the Greenway, alternative transportation and environmental education.

Robin Turner suggested the broad language be utilized that would encompass all of those types benefits expressed above, as well as, leave open the opportunity to accomplish the education in whatever means appropriate or available to the land manager:

> "Educate and promote the property consistent with the purposes of the acquisition and management of the property."

Don Whitehead expressed agreement with this language.

Rob Lombardo suggested that there be a Capital Facilities and Infrastructure activity (Section 6) coupled with this education activity to ensure there are places to hold educational activities. The Chairman noted the idea and agreed that the committee would revisit it when they take up Section 6.

Activity 2.2.5 shall now read as follows: "Partner with local community leaders, businesses, and civic organizations to promote Greenway activities in accordance with the County's Special Event Policy."

Jay Liles wanted to ensure that partnering with local community leaders and businesses to promote the trail did not equate to "sponsorships" and/or obtrusive advertising.

Robin Turner indicated that she thought the Activity was more general than that.

Scott Mitchell suggested that civic organizations be included in the activity language.

Further discussion addressed limiting the size of signs; the types of promotions that might be allowed; provisions and limitations that exist in the County's Special Events Policy; and what a "trail" activity was.

Activity 2.2.6 – *STRIKE*

Ms. Crump expressed her opinion as this activity as being critical to safety issues. Steve Hodges indicated that the intention of this Activity was to simply map all trails. Rob Lombardo said that it wasn't so much the GPS coordinate as it was the signing and mapping of the trails at the crossroads and at the loops.

General discussion followed about the importance of the creation of maps.

Tony Park expressed that Activity 2.2.7 was more important that Activity 2.2.6. Ms. Crump asked if 2.2.7 really addresses safety. Others responded "if they have a map." Scott Mitchell suggested that better trail signage resolves the safety issue, and Rob

Lombardo agreed that it should resolve the safety issue. The issue is to better sign the mileage and directions to major points on the Greenway.
Activity 2.2.7 – Should now read "Develop accurate user maps and accordingly install trail mile markers and other identifying signage on all trails."

Activity 2.2.8 – Move to Objective 6.2

A discussion followed about the creation of new trails along easements and the cost associated with maintaining new trails.

Activity 2.2.9 – shall now read "Coordinate with other trails and greenways planning activities and documents in order to increase non-vehicular connectivity to the Greenway from adjacent greenways, parks, and residential areas in accordance with the Greenways Master Plan, the Regional Mobility Plan, and the Regional Trails Network."

Steve Hodges explained that the intent of this activity is to recognize and coordinate with other planning documents such as the Greenway Management Plan. He reminded the committee that this Greenway does not exist in isolation. Rob Lombardo suggested that we be specific in the types of documents that we state.

The three specific documents that were identified to be included are: the Greenways Master Plan, the Regional Mobility Plan, and the Regional Trails Network.

The Chairman expressed that his comment on Activity 2.2.9 had been addressed.

Rob Lombardo raised an issue associated with Zoe Kulakowski's comment regarding access. Robin Turner suggested that access issues could be elaborated in the Plan's section on Easements or in the section on Public Access and Uses.

There was general consensus that the comments made by committee members on the top of page 8 will most definitely need to be addressed in the Public Access and Use section. Those comments involve:

- Reiteration of limited access
- Reference to the County's Access Policy and
- Identification of possible new access points

Zoe Kulakowski's comment regarding trail connections is addressed through the addition of the new language referencing the Greenways Master Plan, the Regional Mobility Plan, and the Regional Trails Network.

As the meeting neared to an end, Steve Hodges suggested that the County needs to have flexibility in the Plan to develop new trails. Rob Lombardo agreed that it should be left open to the creation of new trails. Brian Corbin thought the language in 2.2.8 was sufficient since it says "determine" the appropriateness . . . of any new trails.

Steve Hodges suggested that the Plan require the land manager develop a process for the development of new trails. Steve Hodges clarified that he is not arguing that we need new trails, but that he thinks the County ought to have the flexibility for new trails.

Jay Liles suggested that the Plan somewhere include language that says that at the time of the development of the Plan, the committee did not see the need for new trails.

The Chairman summarized that the suggestion was to add a new activity:

> Activity 2.2.6 – the old language regarding GPS mapping will be replaced with the following language: "Develop a procedure to determine the appropriateness of new trails."

Ms. Davis indicated that there is a numbering issue that needs to be corrected in the next draft. Currently the draft goes from Objective 2.2. to Objectives 2.5 and 2.6.

The committee then agreed to move to the discussion of Goal 6.

Goal 6: Maintain the Greenway as a passive/resource-based recreation and multi-sue trail corridor with historical vistas while providing public access and amenities and protecting its cultural and natural resources.

Some discussion then followed regarding the definitions/glossary that had been provided. The Chairman noted that active and passive weren't specifically defined. The definitions that somewhat apply to active and passive activities can be found on page 7, Resource-Based Outdoor Recreation or page 4, Outdoor Recreation Activity. Steve Hodges also pointed out the definition on page 8, User-Oriented Outdoor Recreation as being close to an active definition in his mind. However, that definition includes bicycling and picnicking as "user-oriented." Bicycling and picnicking, however, in the committee's opinion are considered allowable uses for the Greenway and considered for the County's purposes as passive.

Objective 6.1 was then discussed with regard to the definition of facilities. Furthermore, there was consideration as to whether the word "trailhead" needed to be inserted before the word facilities.

Committee members contemplated the actual number trail miles. Robin Turner indicated that the last report submitted by Pat Plocek identified 11 miles of trail. Since committee has been meeting, however, it has been suggested that there is 16.7 miles of trail. Steve Hodges obtained that number by pulling up the GIS layer that shows all the mapped trails. There were questions regarding whether that mileage was to reflect maintained trail miles or user-created trail miles as well. Brian Corbin said the maps currently reflect all trails, even the ones that are "sanctioned" by the County.

Rob Lombardo asked as to whether this was the section that would refer to the 4 sectors being identified. Steve Hodges indicated that he would appreciate the time to re-write Section 6 to incorporate all the changes that have been made. That will provide clarity as the committee moves forward.

OLD BUSINESS - Ms. Davis addressed that the definitions/glossary had been provided simply as a starting point for the committee. The Ordinance regarding mobility devices has been provided for the committee, as requested. A revised timeline was provided with the committee's direction and comments from July 13 incorporated. Lastly, two handouts, not reflected on the agenda were given to the committee that had been provided by Rob Lombardo. One was the County's Noise Ordinance and a noise ordinance from the City of Menlo Park.

NEXT MEETING DATE – The next meeting will be Wednesday, July 27 from 5:45 pm to 7:45 pm in the Public Works Gathering Room. Discussion will resume with Section 6, Capital Facilities and Infrastructure.

The meeting adjourned at 7:30 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
July 27, 2011
As amended

MEMBERS PRESENT:
Brian Corbin, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Scott Mitchell, Tony Park, Robin Turner, and Don Whitehead

NON-MEMBERS PRESENT: Leigh Davis and Christopher Vice

CALL TO ORDER – The Chairman called the meeting to order at 5:55 pm with a quorum present.

ADOPTION OF THE MINUTES – The Chairman deferred the adoption of the July 19 meeting minutes to the next meeting to allow committee members the time to review.

REVIEW OF REVISED GOALS AND OBJECTIVES –

The Chairman asked the committee to review new sector maps that were handed out. These sector maps identify only the trails that are maintained by the County. Compared to previous versions that were distributed, these maps present fewer miles of trails. The total of maintained trails is 14.5 miles, and the sectors are broken down in the following manner:

Sector 1: Fleischmann Rd. Trailhead to Edenfield Trailhead
Sector 2: Edenfield Trailhead to Miles Johnson Crossing
Sector 3: Miles Johnson Crossing to Argyle Crossing
Sector 4: Argyle Crossing to Crump Rd. Trailhead

The Chairman indicated that the objective for this meeting is to go through the sectors and identify which activities fit best in those sectors. The purpose of that being to provide direction on what types of trails should be maintained and what types of facilities should be considered for each sector for Objective 6.

There was a general discussion about whether the plan should reflect the miles of maintained trails only or the maintained trails plus the user-created trails. Steve Hodges explained that the variance in that number would impact the calculation of the trail's carrying capacity. Tony Park expressed concern that by including the miles of user-created trails in the plan, that the County then becomes fiscally bound to maintain those user-trails as well. He further indicated that he believes the only trails we would want to identify in the Plan would be those trails that the County is maintaining as multi-use trails (those depicted in the new sector maps).

Robin Turner reminded the committee that there are three separate categories that need to be considered for Objective 6 as the sectors are reviewed. Those are:

- Maintaining existing facilities, roads and trails (Objective 6.1)
- Constructing new facilities, roads, and trails (Objective 6.2)
- Improving or repairing existing facilities, roads, and trails (Objective 6.3)

Sector 1

Most of the trails in this section are dirt with a lot of roots and elevation change. The only real field is at the Edenfield area.

There was discussion about whether the northern part of the first loop (along the fence line) should be left its natural state or be considered for an improved portion. Scott Mitchell suggested, however, that the southern portion of the loop would be the most appropriate area for improving.

Tony Park reminded the group that there would be road extensions eventually at Dempsey Mayo Rd. and at Edenfield Rd. Those extensions, when created, will likely cause the greenway to be divided into additional sectors.

Brian Corbin expressed that another improvement he would like to see at the Fleischmann Rd. trailhead would be the construction of a water source.

Thelma Crump wanted the committee to remember that this is a greenway, not a park. To that regard, she was not in favor of adding a multitude of "park" amenities at trailheads (i.e. bike washes). Don Whitehead agreed that it is a matter of determining what is necessary, not just what might be wanted/used by a specific group.

The Chairman summarized that in Sector 1 there is no room for any substantial expansion of the trailhead. Further, he asked the committee whether they believed this trailhead warranted a restroom facility or not. There was no response to the inquiry.

Brian Corbin moved to include water fountain at the Fleischmann trailhead. Scott Mitchell seconded the motion with a change of language to "water spigot" instead of water fountain. The Chairman restated the motion, "Include a water source at the Fleischmann trailhead somewhere in the management plan." The motion carried unanimously.

Jay Liles wanted to ensure that the group, as a whole, still wanted a variety of trails as suggested in Activity 6.3.5, not that they would all look the same. The Chairman confirmed that he understood that to be the general consensus. The Chairman stated that the general consensus was that Sector 1 would remain natural as long a possible. Once the load increases, however, the group agreed that the southern-most portion of the trail extending from Fleischmann Rd. to Edenfield would be the most appropriate path for improvements with the crushed shell. The only variance from this is in the first loop after leaving Fleischamann trailhead. At that loop, the northern portion along the fence-line should be improved, then dropping back down to the southern-most portion. Furthermore, the committee agreed that in this sector, both the miles of new trails and the miles of improved trail surface should be limited.

Jay Liles expressed that his hope through the deliberations would be to ensure that there is a mix of natural trails with wide, surfaced trails. Furthermore, new trail construction should be limited in this Sector, and any hard-surface improvements to existing trail should also be limited. Julian Dozier indicated his perspective was similar. He would like to see two options on ever section of the trail where space allows, one that was surfaced and wide and one that is more natural.

In final comments regarding Sector 1, Steve Hodges stated that this sector will see a lot of use and will eventually resemble a park simply because of its location. He further expressed his opinion that in the Edenfield area he would like to see it remain open and not receive additional amenities. The Chairman agreed.

Brian Corbin asked if this was the time to discuss the height of the grass and the type of grass. He wants to revisit this issue when Stan Rosenthall returns. Robin Turner suggested this be discussed under the maintenance section. Steve Hodges indicated that he did not know if the Goals and Objectives was the best place to address the grass height.

Prior to moving on to Sector 2, there was a lengthy discussion about the design of the roads that would extend through the property. There was a suggestion, by Steve Hodges, that "side-paths" be constructed beyond the sidewalks that would be created for the road extensions. Scott Mitchell would like to see the committee insert language in the plan that might impact the type of infrastructure that gets constructed along these road corridors and the type of landscaping.

As previously indicated, road corridor easements are established at Dempsey Mayo Rd. and Edenfield Rd. Robin Turner informed the group that in sector 3 there is also a road easement. However, in this case, there is not a specific dedicated easement, instead the road will lie somewhere between Miles Johnson Rd. and Argyle Ln.

Robin Turner suggested that the committee could address the type of coordination required, prior to future road development, in the Partnerships and Regional Coordination section of the plan.

Steve Hodges moved to include language in Development section of the Plan that encourages the land manager to work with the City to ensure that bicycle and pedestrian facilities that minimize the environmental impacts be considered in the design of the proposed roadways. Julian Dozier asked if the motion should go further by suggesting that the constructed facility be a multi-use hardened surface in lieu of a concrete sidewalk. The motion-maker accepted that as a friendly amendment. Jay Liles seconded the motion. The motion carried with Ms. Crump opposed. *(Ms. Crump's position was later reversed. See minutes from August 9, 2011 when the voted was reconsidered.)*

The general consensus was that the Edenfield field was sufficient as is. There was discussion however, about the best placement for Rob Lombardo's suggestion of picnic spaces or pavilions for educational programs. There was some thought that the Thornton Road area would be the best location. The group ultimately decided, however, to wait to vote until Mr. Lombardo could clarify his comments and objectives.

Scott Mitchell raised the issue of potential parking lot(s) expansion. He believes that the heaviest used trailhead (Edenfield) has the smallest parking area. He was not advocating the expansion, necessarily, but was not sure if it should be limited. Further conversation took place regarding the issue. Tony Park indicated that the only parking lot expansion over the last ten years had been the area at Edenfield. Steve Hodges said that the plan could be silent on the issue of parking.

Brian Corbin moved that the Plan not hamstring the County with regard to expanding a parking area if necessary. Steve Hodges offered a friendly amendment that the Plan would not address parking lots in this management plan. Jay Liles indicated he would be concerned about not providing any direction to the County on parking. The motion died for a lack of a second.

The Chairman indicated that he would like to take Jay Liles' suggestion and revisit parking when the committee comes back to the Goals and Objectives. At that time a cap may be placed on or considered for each trailhead parking area.

Sector 2

The general consensus was that there were no additional trails needed for Sector 2. Brian Corbin asked about the northern trail just west of the Thornton Rd. open field. Tony Park indicated that he would have staff verify whether that section is actually being maintained.

The Chairman moved on to discussion regarding Thornton trailhead. His assessment is that the trailhead parking is more than adequate at this point. In addition, there is a water source. There have been comments from Rob Lombardo and others to install a restroom facility at that trailhead (Activity 6.2.3 and Activity 6.3.1). There was general consensus that a restroom facility at the Thornton trailhead would be amenable.

Brian Corbin advised that the map for Sector 2 was incorrect just under I-10. The part under I-10 is now fenced off at the zag; it now goes straight down to the driveway.

There was general consensus that the section between the interstate and Miles Johnson was too narrow for additional trails.

The committee confirmed the desire, for the upcoming Phase II trail improvements, to follow the existing trail from the eastern corner of the Thornton field up to Miles Johnson Rd. The intent is that there will be a spine through the entire greenway that will be hardened with the exception of Sector 1.

Sector 3

There was discussion regarding how Phase II trail improvements should be laid between Miles Johnson Rd. and Welaunee Rd. Zoe Kulakowski suggested hardening the section closest to Miccosukee Rd. (the northern-most path). There was consensus for Zoe's recommendation.

Staff conveyed that the committee's opinion regarding placement of the Phase II hardened trail would definitely be passed on to the engineer in preparation of his plans for placement. If their suggestions can't be implemented, staff will advise the committee as such.

NEXT MEETING DATE – The next meeting will be Tuesday, August 9 from 5:45 pm to 7:45 pm in the Public Works Gathering Room. Discussion will resume with review of the sector maps (particularly Sector 4) and Section 6, Capital Facilities and Infrastructure of the Goals and Objectives.

The meeting adjourned at 7:45 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
August 9, 2011
As amended

MEMBERS PRESENT:
Akin Akinyemi, Brian Corbin, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Jay Liles, Scott Mitchell, Tony Park, Stan Rosenthal, and Robin Turner

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – The Chairman called the meeting to order at 5:55 pm with a quorum present.

ADOPTION OF THE MINUTES – The Committee took up the minutes of the July 19, 2011 meeting. Steve Hodges moved to accept the minutes. Zoe Kulakowski seconded the motion. The motion passed unanimously.

The Committee took up the minutes of the July 27, 2011 meeting. Staff sought clarification on committee consensus regarding trail improvements in Sector 1, particularly pertaining to the first loop. The Committee confirmed that the intention was to have the northern portion of the first loop improved, when necessary. Additional trail improvements, then, would follow the southern-most portion of the currently maintained area. Jay Liles asked for consensus by the committee and clarification to be included in the minutes that new trail construction should be limited in this Sector. Furthermore any hard-surface improvements to existing trail should also be limited. The committee confirmed its intent as expressed by Mr. Liles, and Julian Dozier moved to accept the minutes as amended. Steve Hodges seconded the motion. The motion passed unanimously.

Steve Hodges moved to reconsider his motion from the July 27, 2011 to include language in the Development section of the Plan that encourages the land manager to work with the City to ensure that new bicycle and pedestrian facilities associated with the design of proposed roadway construction minimize the environmental impacts. Scott Mitchell seconded the motion. The motion passed unanimously.

REVIEW OF REVISED GOALS AND OBJECTIVES –

The conversation began with consideration of Sector 4 and the facilities that the committee wishes to see in that sector. Tony Park marked the existing hardened surface in that sector.

Stan Rosenthall commented that the parking facility at the Crump Rd trailhead needed improvement. There was discussion about making/keeping this the primary equestrian trailhead.

Brian Cobin raised the issue of all the trails that exist that cross through the big loop. He sought clarification as to whether those trails were "supposed" to be there. Stan Rosenthall believes those trails are mowed/maintained by the County. Tony Park asked the Chairman to allow staff to verify/inventory the maintenance activities with greenway staff regarding those cross-over trails prior to the committee making a decision on whether additional trails are needed, or not, in this section.

Scott Mitchell asked about areas that needed environmental protection. How can the land manger ensure these areas stay pristine? Steve Hodges and Robin Turner indicated that the land manager can record these environmental areas with the Florida Natural Areas Inventory (FNAI), and any archeological sensitive areas can be recorded with the Division of Historical Resources. Commissioner Akinyemi then asked if a Natural Features Inventory (NFI) is necessary. Steve Hodges and Tony Park indicated that an NFI has already been completed for the Miccosukee Greenway in 2000.

At the Crump Road trailhead there is the portable restroom facility, but no water source facility. Brian Corbin moved to include a water source at the Crump Road trailhead (Sector 4 facility) in the management plan. Scott Mitchell seconded the motion. The motion passed unanimously.

The discussion then turned to whether there should be a permanent restroom facility at the Crump Rd. trailhead. Tony Park encouraged the committee to provide direction in the Plan with regard to providing new amenities, but acknowledged that whatever is in the plan with regard to amenities would have to be prioritized as the County carries out the plan over the next 10 years and as funding becomes available. For example, he shared with the group that staff had, as a result of committee discussion, looked into what it would cost to provide a water source at Fleischmann Rd. trailhead. City water is available, but it requires a tap fee of $4,000. That doesn't include the plumbing and pipes that go with it. In all, staff estimates that simply to add a water source at Fleishmann it would cost upwards of $7,000. The Committee further discussed whether a non-city water source would be more cost effective.

Tony Park advised that a list of amenities for everything along the Miccosukee Greenway has now been inventoried. That list was then distributed to the Committee for review.

Robin Turner suggested the activities within the goals and objectives stay general with elaboration of intent of the Committee in the body of the Plan. To this regard, it provides more flexibility to the land manager in terms of fiscal impact and prioritization ability.

Scott Mitchell stated that he supports/would encourage the group to prioritize issues and amenities as part of the work of the committee. Robin Turner agreed that prioritizing by the Committee would be appropriate; she was just suggesting that such specific language not be included in the activities of the Goals and Objectives section.

Commissioner Akinyemi stated that in his experiences graphics and details in plans helped secure and gain support for funding. He also suggested that in relation to funding that the plan might utilize a "phased" approach over the 10-year period.

The Chairman summarized the discussion by stating that the consensus seemed to be that Activities (in the Goals and Objectives) should stay all-encompassing/general and budgetable. Then, in the narrative of the plan talk about the amenities and the specific improvements the Committee would like to see.

Scott Mitchell asked if there was any interest for the Committee to have language that limits the types of facilities at trailheads instead of listing specific amenities that should be incorporated at each trailhead. Jay Liles indicated he was inclined to agree with what Mr. Mitchell was proposing and suggested possibly a preamble that would, in effect, limit the inclusion of amenities to only those things that keep in the character with and has the least amount of

environmental impact to the Greenway. Akin Akinyemi also agreed with that concept and suggested that such a preamble set the parameters for types of amenities and facilities.

Steve Hodges encouraged committee members to send any suggested language to Leigh Davis for inclusion in the Plan.

With the discussion on Sector 4 being complete, the Chairman directed the Committee to the draft language for Capital Facilities and Infrastructure – Goal 6 (Attachment #3).

Objective 6.1: Maintain four existing facilities, zero miles of existing roads, and **14.5** miles of existing multi-use trails.

> Activity 6.1.1: Monitor and maintain **14.5** miles of existing multi-use trail for visitor impacts.

Ms. Davis reminded the group that the number of miles might change again after further discussion with staff regarding what is actually maintained in Sector 4.

Jay Liles posed several questions to Ms. Crump regarding her safety concerns identified as a comment under Activity 6.1.3. He wanted to ensure that her concerns did not mean the need for installing lighting along the trail or cutting down trees to open up the view to a trail. She confirmed solutions to her concerns did not mean providing these things. She clarified that her concerns pertained to animal and human safety and should be addressed through things such as enforcing the leash laws; increasing protection/security for visitors to the greenway by hiring rangers/patrols or increasing policing along the greenway corridor; and through signage and other means to help those who might get lost or turned around. She further expressed her concerns regarding the potential for hunting on the greenways as an unintended consequence to the state legislation that passed in 2011. Committee discussion ensued regarding safety issues and enforcing existing laws. Based on the discussion Stan Rosenthall made a suggestion that, as a long-term pursuit, the Committee include language in the plan regarding creating a volunteer "greenway trail patrol". Robin Turner proposed that instead of it being in the numerical goals, objectives, and activities that it should be in the Safety/Security Management section of the plan which falls under the Management Priorities. There was general committee consensus for such an inclusion. In addition Scott Mitchell suggest that the County needs to consider instituting a volunteer organization/team to report daily-type problems, issues or concerns. The types of things that would not be addressed specifically in the Management Plan.

> Activity 6.1.4: *Strike*

The Chairman suggested, and received committee consensus, for the following underlined language as a result of the previous discussion.

> Activity 6.1.5: Maintain site security**, enforce existing laws and regulations concerning use of the greenway.**

Discussion then moved to Objective 6.2, and considerable committee discussion followed. This resulted in consensus for the following change in language to Objective 6.2.

Objective 6.2.: Construct zero new facilities, zero miles of new road, and **one** mile of new trail.

The actvities under Objective 6.2 need to clarify that new trail is defined only as connections to existing trail.

Furthermore, after considerable discussion Steve Hodges moved to strike activity 6.2.4. That motion was seconded by Scott Mitchell. The motion passed unanimously.

Activity 6.2.4: *Strike*

NEXT MEETING DATE – The next meeting will be Tuesday, August 16 from 5:45 pm to 7:45 pm in the Public Works Gathering Room. Discussion will resume with Section 6, Capital Facilities and Infrastructure, Objective 6.3. The meeting adjourned at 7:45 pm.

Miccosukee Greenways
Management Plan

Meeting Minutes
August 16, 2011

MEMBERS PRESENT:
Akin Akinyemi, Thelma Crump, Julian Dozier, Steve Hodges, Zoë Kulakowski, Scott Mitchell, Tony Park, and Robin Turner

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – The Chairman called the meeting to order at 6:00 pm with a quorum present.

ADOPTION OF THE MINUTES – Staff was asked to incorporate the discussed changes to the minutes of the August 9 meeting prior to final adoption. These changes included clarification regarding the roles of the Florida Natural Areas Inventory and the Division of Historical Resources; additional language that recognized the committee's discussion regarding the potential for a non-city water source at the Fleischmann Rd. trailhead; expansion of the language regarding Ms. Crump's safety concerns; and inclusion of Mr. Mitchell's suggestion regarding the formation of a volunteer organization/team to report day-to-day problems or issues along the greenway facilities.

REVIEW OF REVISED GOALS AND OBJECTIVES –

The Committee began resumed discussion with Objective 6.3. After lengthy discussion, the following consensus was reached.

Objective 6.3: Improve or repair **four (4)** existing facilities, zero (0) miles of existing roads, and **14.5** miles of existing trail.

Activity 6.3.1 – Shall be modified to include Edenfield Trailhead and delete all language after trailheads. The activity shall now read, "Improve Fleischman, Thornton, Crump and Edenfield trailheads."

Activity 6.3.2 – Should address the "trunk" trail specifically instead of utilizing the term "main trail".

Activity 6.3.3 – The activity shall now read, "Install location, directional, and/or mile markers and other identifying signage on all trails."

Activity 6.3.4 – *Strike*. The Committee agreed that the discussion of sectoring the greenway should be discussed in the narrative and not be included as an activity. Subsequent activities should be renumbered.

During this discussion Scott Mitchell questioned the specific division of the sectors and how the committee came to that determination. He does not particularly agree with the sectors as divided. Discussion then ensured about segmentation. Ultimately the Committee decided to table the sector segmentation discussion until Rob Lombardo

returns. But regardless of how the segmentation issue is resolved, Activity 6.3.4. should be struck since the segmentation language is more appropriate in the narrative.

Activity 6.3.5 – The activity, which will now become 6.3.4., should now simply read, "Inventory existing trails for users and impacts."

Activity 6.3.6 – *Strike.*

Activity 6.3.7 – Should be moved to now be considered Activity 6.2.4. (The original 6.2.4 was struck during the August 9 meeting.) The new activity shall read, "Any new trails or connectors should conform to existing design criteria."

Activity 6.3.8 – *Strike.*

OLD BUSINESS -

During the August 9, 2011 Brian Cobin raised the issue of the trails that exist crossing through the big loop in Sector 4. He sought clarification as to whether those trails were "supposed" to be there. Stan Rosenthall believes those trails are mowed/maintained by the County. Tony Park asked the Chairman to allow staff to verify/inventory the maintenance activities with greenway staff regarding those cross-over trails prior to the committee making a decision on whether additional trails are needed, or not, in this section.

Staff has confirmed that the cross-over trails in question are definitely not being maintained/mowed by the Greenway staff. Consequently the County would contend that the 14.5 miles of trail, previously identified, is the correct number for the Management Plan.

NEW BUSINESS –

As a point of information, Zoë Kulakowski brought to the Committee's attention the City's proposed new sign ordinance. Tony Park indicated that the County has a sign ordinance as well and said that the rural areas that she was concerned about would be protected through that ordinance. He said he would provide her a copy of the County's sign ordinance for her reference.

NEXT MEETING DATE – The next meeting will be Thursday, September 1 from 5:45 pm to 7:45 pm in the Public Works Gathering Room.

Miccosukee Greenways
Management Plan

Meeting Minutes
December 1, 2011

MEMBERS PRESENT:
Robin Turner Birdsong, Thelma Crump, Julian Dozier, Tabitha Frazier, Steve Hodges, Chris Vice and Don Whitehead *(A quorum was not present.)*

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – Chairman Dozier called the meeting to order at 5:45 pm.

ADOPTION OF THE MINUTES – The minutes for the November 10, 2011 meeting were not adopted due to a lack of a quorum. The will be placed on the next meeting agenda.

CONTINUED REVIEW OF THE DRAFT PLAN – The Chairman first asked Steve Hodges if he needed any clarification on items that had been previously discussed. Mr. Hodges indicated that he did want additional clarification on how the sectors should be listed in the Plan. He was not clear of the dividing lines. The following clarification was offered by Ms. Davis:

Sector #1: Fleischman Rd. trailhead to Edenfield Rd. trailhead
Sector #2: Edenfield Rd. trailhead to Mile Johnson crossing
Sector #3: Miles Johnson crossing to Argyle crossing
Sector #4: Argyle crossing to Crump Rd. trailhead

Discussion commenced with Goal 6, Objective 6.2 at the bottom of page 24. Objective 6.3 regarding the placement of a pavilion was tabled until a quorum was present.

Goal 7. The Chairman raised his concerns about ensuring that all know sites are recorded. He wasn't sure how the land manager could ensure this. Robin Birdsong explained that even though the sites are recorded that that information is not always released due to sensitivity of the site.

Numbering issue was identified. Objective 7.2 is missing, so Steve will renumber accordingly. Objective 7.3 "Bring all sites recorded in baseline report into a good condition" should be CORE.

Goal 8. Robin Birdsong indicated that Scott Mitchell and Thelma Crump had previously said there were rare lilies and Turk-cap in Sector 4. Staff needs to become familiar with these species.

No comments were made regarding the Management Authority or Defending Title sections.

Don Whitehead pointed out a typo in paragraph 3, 3rd line down, under *Trails* (page 27). Currently the language reads, "...of the greenway should remain natural as long as possible including limited..." The word limited should be limiting.

Tabitha Frazier suggested that on page 28, the first sentence, be written to better identify the section being discussed. The new sentence should read, "In a portion of Sector 3, the stabilization of the maintained trunk trail system between Miles Johnson Road and Welaunee Road eastward should be along that part of the trail closest to Miccosukee Road."

There were no changes to *Roadway Crossings* (page 28). *Stormwater* section needs work. Ms. Davis commented that she would talk to Tony Park and/or Theresa Heiker about word-smithing the language.

There was discussion on how the section on *Carrying Capacity* would be completed. Robin Birdsong suggested that the Plan could simply refer to the use of the Florida Department of Environmental Protection, Division of Recreation and Parks, Visitor Carrying Capacity Guidelines. For instance the language in the plan might simply read, "The Carrying Capacity was calculated using the guidelines as set forth in the Florida Department of Environmental Protection, Division of Recreation and Parks, Visitor Carrying Capacity Guidelines."

The Committee wanted Steve to modify the title of the *Carrying Capacity* section to read: *Visitor Carrying Capacity Guidelines*.

There were no changes to the Easements section on page 29.

Under Potential Surplus Lands, the committee discussed inserting stronger language, but no consensus was reached and without a quorum a vote could not be taken.

Don Whitehead indentified a typo/unclear language under Prospective Land Acquisitions, first paragraph, 4th line. "The boundary of the MCRD does not follow any natural boundaries other than Miccosukee Road, and the existing boundary lines can be create gaps. . ." Steve Hodges acknowledged and will fix the concern.

Page 31, Ms. Crump asked about whether there was attachment that would explain the policies listed. Since it was confusing, Steve Hodges suggested that he will remove all of the bullets and instead include them in document in the appendix.

No comments were suggested for the section on Resource Management and Protection.

Additional typos and inconsistencies were pointed out, and other minor changes were suggested for inclusion in the final draft for all committee members to review.

OLD BUSINESS – No old business.

NEW BUSINESS – No new business.

NEXT MEETING DATE – The next meeting was set for January 5, 2012 to review the final draft plan.

Miccosukee Greenways
Management Plan

Meeting Minutes
January 5, 2012

MEMBERS PRESENT:
Comm. Akin Akinyemi, Brian Corbin, Robin Turner Birdsong, Thelma Crump, Julian Dozier, Tabitha Frazier, Steve Hodges, Jay Liles, Rob Lombardo, Scott Mitchell, Tony Park, Stan Rosenthal, Chris Vice and Don Whitehead

NON-MEMBERS PRESENT: Leigh Davis

CALL TO ORDER – Chairman Dozier called the meeting to order at 5:45 pm.

ADOPTION OF THE MINUTES – The committee reviewed the November 10th minutes. Steve Hodges moved the minutes as presented. Chris Vice seconded the motion. The motion passed unanimously.

REVIEW/COMMENTS OF THE FINAL DRAFT – The Chairman opened the discussion. He indicated that he had sent his comments electronically to Ms. Davis in track-changes and so he would not spend a lot of time during this meeting addressing his changes.

Steve Hodges asked about the time line. Ms. Davis answered that the time line included having an initial draft to the Board in February. She indicated her preference was to take the item to the Board on February 14.

Rob Lombardo expressed that he was still looking for descriptions of the four sectors. It was determined that the definition would be inserted on page 2 under the Location of Property. Under the paragraph as currently crafted, add four bullet points defining the boundaries of the sectors.

On the bottom of page 14, the easements should be clarified by possibly inserting the road names or creating a table.

On page 28, discussion took place regarding the paragraph beginning, "The City of Tallahassee has proposed to vacate that easement allowing the extension of Arendel Road . . ." Rob Lombardo moved that the new language read "Some consideration is being given to an exchange of the easement at Arendel with an easement at Thornton Road. This proposal would require extensive review by the Division of State Lands and ultimate approval by the Florida Governor and Cabinet sitting as the Trustees of the Internal Improvement Trust Fund." Robin Birdsong expressed some uneasiness with the language. There was never a second to the motion. Discussion continued regarding various wording for this section.

After considerable discussion, **Rob Lombardo moved that the committee delete the entire third paragraph on page 28 beginning, "The City of Tallahassee has proposed..." The motion was seconded by Robin Turner Birdsong. The motion passed unanimously.**

Prior to departing, Commissioner Akinyemi advised the group, that Commissioner Bryan Desloge would be replacing him on this committee; Kristin Dozier would be moving to the

Alford Greenway CAC; and he would be sitting on the Canopy Road Committee. He also thanked the group for their work.

Stan Rosenthal asked to address language on page 34. He asked that "pets off leash" be inserted. The committee felt that it was already addressed appropriately on page 45 of the Plan under "Pet Policies." Mr. Rosenthal concerns were alleviated.

On page 27, Scott Mitchell commented that the bullet points regarding the sectors seemed to really be addressing the stabilization by the crushed oyster shell. As such, he felt that language needed to be added under Sectors #2 and #4 specifically identifying the segments of the sectors that had already been stabilized. Chairman Dozier indicated he had included language in his submitted changes as well.

On page 40, Scott Mitchell also pointed out some incorrect information. The Fleischman Road Trailhead does not have packed, crushed limestone and gravel surface. Those words should be struck. The new language should identify the surface as inter-locking grass pavers.

On page 17, Thelma Crump wanted to ensure that Akin Akinyemi was left on the list of the appointed members. Steve Hodges agreed. Bryan Desloge will be also be added. As a solution it was recommended that the date of service for Bryan Desloge and Akin Akinyemi be added.

Jay Liles asked about Stargazing as a limited use (page 43). He asked if a permit was required to see a meteor shower. The Chairman indicated that the park is technically closed at night. Ms. Davis explained that sometimes groups of stargazers organize events on the greenway for special events. In that case a special events request form has to be submitted.

Robin Birdsong had numerous changes. She read those into the record, but will supply all of her changes in electronic format to Mr. Hodges through Ms. Davis. **A vote did take place on the specific changes to the section entitled "Archaeological/Historical Features" (page xii). After Ms. Birdsong read the lengthy new language, Steve Hodges moved the acceptance of the language. Robin Birdsong seconded the motion. The motion passed unanimously.** This language should also be inserted in the body of the plan on page 10.

Additional on page 10, under Archaeological, Historical, and Cultural Resources, Robin Birdsong struck, "These include a previously recorded archaeological site, a "resource group" (historical district or building complex), and the historic Hickory Hill cemetery." Two sentences later, the word "management" was changed to interpretation. The new sentence now reads, "There are two sites that merit interpretation."

In the Executive Summary, under Location, the sections and township information should be inserted. "The MCRG is located along Miccosukee Road in Leon County, Florida, in Sections 12, 13, 14 and 15, Township 1 North, Range 1 East, and Sections 4, 5, 7, and 8, Township 1 North, Range 2 East…." (This language consequently should be removed from the Overview section on page 1.)

On page xiv, Ms. Birdsong indicated that a section is missing. A section on Land Management Review is necessary.

Stan Rosenthal offered a change to the first sentence on page 33; remove the word mechanical and replace it with other.

On page 9, Stan Rosenthal corrected some of the language in the Native Species and Listed Species sections. He indicated there are no Overcup Oak, black bear, or golden eagles on the property. Those need to be removed.

OLD BUSINESS - The Chairman indicated that in terms of Old Business the only thing outstanding was the pavilion placement. Both Mr. Lombardo and Ms. Crump indicated they were satisfied with the way the language was now written in the Plan.

NEW BUSINESS – No new business.

NEXT MEETING DATE – No future meeting date was set. Ms. Davis will be communicating with the Chairman about a date for the Public Meeting.

LEON COUNTY
MICCOSUKEE CANOPY ROAD GREENWAYS
CITIZEN'S ADVISORY COMMITTEE
NOTICES OF PUBLIC MEETINGS

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Management Plan Review Advisory Committee will hold a meeting Thursday, March 31, 2011, at 5:30 p.m. at Leon County Public Works, 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

For more information, please contact Pat Plocek at (850) 606-1475.

PUBLICATION: MARCH 30, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting Thursday, April 28, 2011, at 5:30 p.m. at Leon County Public Works, 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanM@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: April 27, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, May 12, 2011, at 5:30 p.m. at Leon County Public Works' Gathering Room, 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanM@leoncountyfl.gov by written request at least 48 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: MAY 7, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee has established the Technical Subcommittee on Goals and Objectives. This subcommittee will hold a meeting on Wednesday, May 25, 2011, at 10 a.m. on the third floor of the Renaissance Center, 435 N. Macomb St., in the Planning Director's Conference Room.

The subcommittee has been formed to review and format the goals and objectives as articulated and proposed by the full Citizen's Advisory Committee. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanM@leoncountyfl.gov prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: MAY 24, 2011

LEON COUNTY
MICCOSUKEE CANOPY ROAD GREENWAYS
CITIZEN'S ADVISORY COMMITTEE
NOTICES OF PUBLIC MEETINGS

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Wednesday, June 8, 2011, at 5:30 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanM@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: JUNE 7, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Wednesday, July 13, 2011, at 5:30 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanM@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov

PUBLICATION: JULY 12, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Tuesday, July 19, 2011, and Wednesday, July 27, 2011, at 5:45 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 48 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov

PUBLICATION: JULY 16 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Tuesday, August 9, at 5:45 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 48 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: August 5, 2011

LEON COUNTY
MICCOSUKEE CANOPY ROAD GREENWAYS
CITIZEN'S ADVISORY COMMITTEE
NOTICES OF PUBLIC MEETINGS

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Tuesday, August 16, at 5:45 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 48 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: August 13, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, September 1, at 5:45 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

AUGUST 31, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, October 6, at 5:45 p.m. at the Public Works Gathering Room, located at 2280 Miccosukee Road.

This Advisory Committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: October 5, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, October 27, 2011, at 5:45 p.m. at the Leon County Public Works Gathering Room, located at 2280 Miccosukee Road.

This advisory committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

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OCTOBER 25, 2011

LEON COUNTY
MICCOSUKEE CANOPY ROAD GREENWAYS
CITIZEN'S ADVISORY COMMITTEE
NOTICES OF PUBLIC MEETINGS

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Subcommittee will hold a meeting on Wednesday, November 9, 2011, at 4 p.m. at the Leon County Cooperative Extension Office, located at 615 Paul Russell Road.

A subcommittee was established to address grass and mowing heights. Any committee member, however, is welcome to attend the meeting. The subcommittee will be discussing the optimal grass height for trails in terms of how the land should be managed and groomed on a regular basis. All meetings are open to the public for observation, but no comments from the general public will be taken at this meeting.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

NOVEMBER 8, 2011

Subcommittee

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, November 10, 2011, at 5:45 p.m. at the Leon County Public Works Gathering Room, located at 2280 Miccosukee Road.

This advisory committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

NOVEMBER 8, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, December 1, 2011, at 5:45 p.m. at the Leon County Public Works Gathering Room, located at 2280 Miccosukee Road.

This advisory committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

PUBLICATION: November 30, 2011

NOTICE OF PUBLIC MEETING

The Miccosukee Canopy Road Greenways Citizen's Advisory Committee will hold a meeting on Thursday, January 5, 2012, at 5:45 p.m. at the Leon County Public Works Gathering Room, located at 2280 Miccosukee Road.

This advisory committee has been formed to review and update the present Management Plan for the Miccosukee Canopy Road Greenways. All meetings are open to the public for observation, but no comments from the general public will be taken at these meetings.

In accordance with Section 286.26, Florida Statutes, persons needing a special accommodation to participate in this proceeding should contact Maxine Donovan with Leon County Parks and Recreation at 2280 Miccosukee Road, Tallahassee, Florida, 32308, or at DonovanMa@leoncountyfl.gov by written request at least 24 hours prior to the proceeding. Telephone: (850) 606-1474.

For more information, please contact Leigh Davis, Assistant to the Public Works Director, at (850) 606-1542 or DavisLe@leoncountyfl.gov.

DECEMBER 28, 2011

1.5.12 meeting