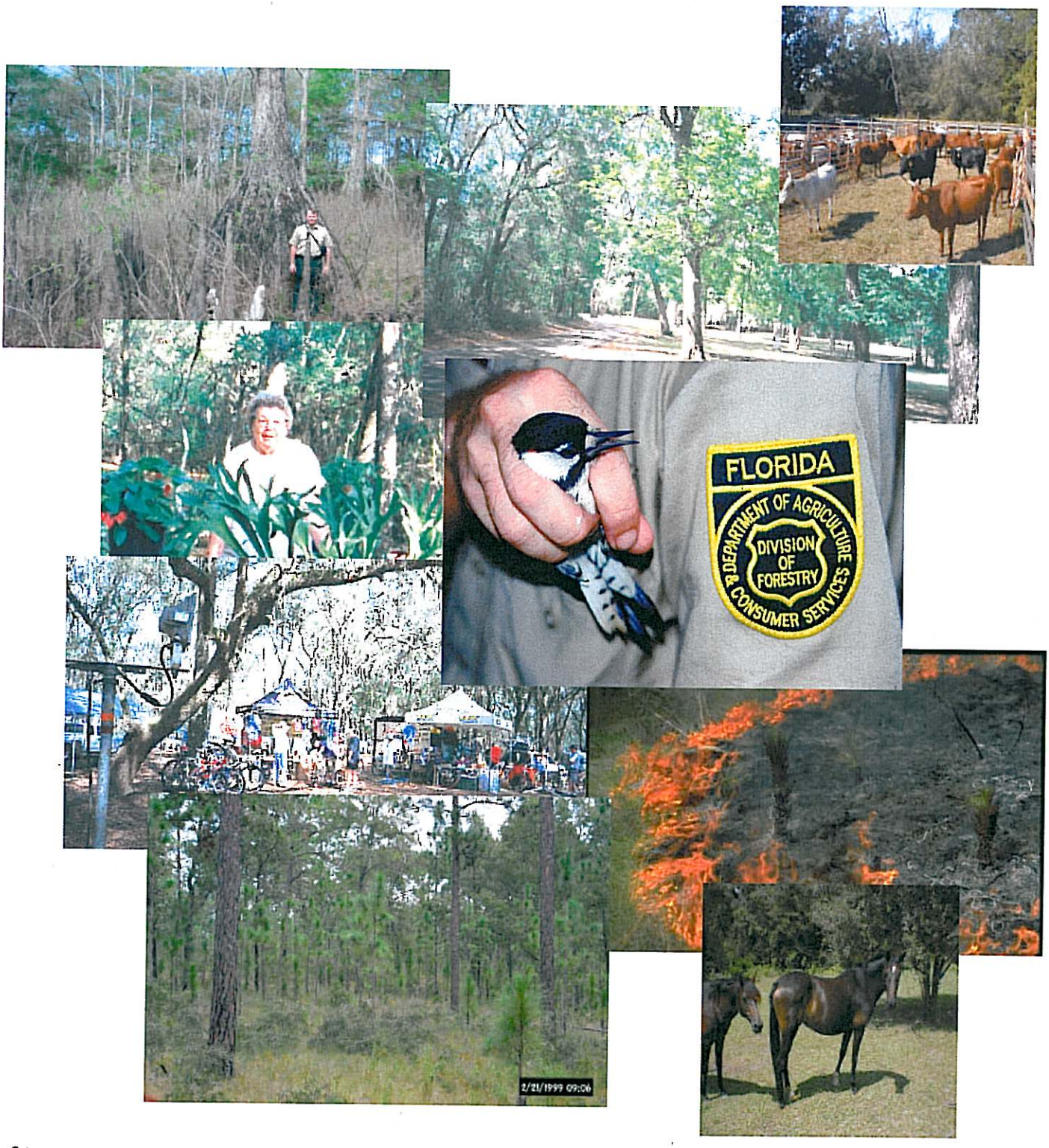
Withlacoochee State Forest

Five-Year Management Plan



FIVE-YEAR RESOURCE MANAGEMENT PLAN

FOR THE

WITHLACOOCHEE STATE FOREST

CITRUS, HERNANDO, LAKE, PASCO,
AND SUMTER COUNTIES

PREPARED BY

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

DIVISION OF FORESTRY

FOR THE PERIOD

April 18, 2003

THROUGH

April 17, 2008

FIVE-YEAR RESOURCE MANAGEMENT PLAN

FOR THE

WITHLACOOCHEE STATE FOREST

Approved by:

L. Earl Peterson, Director
Division of Forestry

Charles Maynard, Chief
Forest Management Bureau

WITHLACOOCHEE STATE FOREST
FIVE-YEAR RESOURCE MANAGEMENT PLAN

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LAND MANAGEMENT PLAN EXECUTIVE SUMMARY

Lead Agency: Florida Department of Agriculture and Consumer Services, Division of Forestry
Common Name: Withlacoochee State Forest
Location: Citrus, Hernando, Lake, Pasco, Sumter Counties
Total Acreage: 157,091 (as of 10/04/01)

Acreage Breakdown:

Natural Community Groups	Acreage	Natural Community Groups	Acreage
XERIC UPLANDS	73,011	MARINE AND ESTUARINE	676
MESIC UPLANDS	800	PALUSTRINE	5,000
ROCKLANDS	100	SEEPAGE WETLANDS	10
MESIC FLATLANDS	31,902	FLOODPLAIN WETLANDS	23,685
COASTAL UPLANDS	57	BASIN WETLANDS	21,100
SUBTERRANEAN	<1	LACUSTRINE	650
RIVERINE	100	**TOTAL ACRES**	**157,091**

Lease/Management Agreement No. 3316, 3560, 3994, 4145 Use: Single___ Multiple_X_

Management Agency	Responsibility
Florida DACS, Division of Forestry	General Management of Forest, Resources, Recreation & Wildlife
Florida Fish and Wildlife Commission	Wildlife Resources & Laws
Office of Agricultural Law Enforcement	Rules and Laws
Division of Historical Resources	Historical and Archaeological Resource Management

Designated Land Use: Multiple Use State Forest
Sublease(s) Nine (9)
Encumbrances: United States of America, (Mineral Rights), Southwest Florida Water Management District Little Withlacoochee Management Area
Archeological/Historical Numerous historical sites can be found within the borders of the Withlacoochee State Forest.
Management Needs: Longleaf pine restoration, erosion and sedimentation control, boundary resolution, increased recreational opportunities, hydrological restoration.

Acquisition Needs: In-Holdings, Adjacent lands next to our major tracts.
Surplus Lands/Acreage: None
Public Involvement: Board of County Commissioners for Citrus, Hernando, Lake, Pasco, Sumter Counties, Withlacoochee Liaison Committee, Management Plan Advisory Group and Public Hearing.

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

ARC Approval Date: _____ BTIITF Approval Date: _____

Comments: _____

I. INTRODUCTION

The Division of Forestry's mission is to protect and manage Florida's forest resources through a stewardship ethic to assure these resources will be available for future generations. The Withlacoochee State Forest (WSF) is designated for multiple-use management with the Division acting as lead agency.

Ecosystem management is the overall concept used to perpetuate the sustainability of the forest's native ecosystems and biodiversity. Ecosystem management is an ecological approach to management that produces multiple, diverse benefits from forest lands by blending environmental values and the needs of people in such a way that these lands remain or become diverse, healthy, productive, and sustainable ecosystems. The primary objectives of the Division of Forestry in managing Florida's State Forests are:

- To restore, maintain, and protect in perpetuity all native ecosystems.
- To insure long-term viability of populations and species considered rare, endangered, threatened, or of special concern.
- To protect known archeological and historical resources.
- To provide for compatible public access, integrating human use through a program of resource based forest recreation, not emphasizing any particular use over the others, or over the restoration, maintenance and protection of native ecosystems.
- To practice sustainable forest management utilizing sound silvicultural techniques.
- To conduct hydrological restoration projects on wetlands altered by human-caused activities.

The Withlacoochee State Forest is made up of seven different tracts of land or management units that extend across 45 linear miles of west central Florida and across five counties (Citrus, Hernando, Lake, Pasco and Sumter). These tracts are: Richloam, Citrus, Croom, Jumper Creek, Homosassa, Two Mile Prairie, and Headquarters. There are several smaller parcels that are part of the Withlacoochee State Forest which are typically referred to by name: Little River Ranch, Marsh, PK Smith, World Woods, Cason, Sugarmill Woods, and Lecanto Sandhills. Total acreage for all WSF land is 157,091 acres.

A focal point of the forest is the Withlacoochee River, which flows through 13 miles of the forest. Withlacoochee comes from an Indian word meaning "crooked river." The description is appropriate because the river twists throughout its 70-mile northwesterly journey from the Green Swamp in northern Polk County to its mouth on the Gulf of Mexico, south of Cedar Key.

PREVIOUS 5YR. MANAGEMENT PLAN GOALS/OBJECTIVES & ACCOMPLISHMENTS

Goal 1: To restore, maintain, and protect, in perpetuity all native ecosystems.

Objective 1: In the event of any landclearing or ground disturbing activities within the forest, which exceed a depth of six (6) inches, a project activity will be submitted to Division of Historical Resources (DHR), Division of State Lands (DSL), and Florida Natural Areas Inventory (FNAI), for review and comment to determine the impact of the project on historic and environmental resources.

Status: The WSF currently has one certified archaeological monitor on staff. This person has been tasked with reviewing projects based on their potential impact to historical resources. This process is monitored through an environmental analysis process utilized by WSF staff for all potentially significant ground disturbing projects.

Objective 2: Maintain the vegetative integrity of the Lecanto Sandhill and Holder Mine Scrub sites.

Status: The staff of the WSF has been actively involved in the management of two small scrub areas located on the Citrus Tract. In 1996-97 half of the Lecanto Scrub had the sand pine harvested. Due to drought and insect activity on the forest and adjacent private lands, the remainder has not been removed. When insect activity and the drought subsides, this area will receive immediate attention.

Objective 3: Hunting and trapping will be used to control feral hog populations.

Status: These two methods have been employed by the Division to reduce hog populations in the state forest. Establishment of hunts and the lifting of bag and size limits have occurred on most tracts. On a short-term basis, hunting and trapping will be used to help keep the population in check.

Objective 4: Initiate an exotic species control program.

Status: A WSF exotic control management plan has been written and followed for the past five years. The incorporation of grant funds from DEP Invasive Exotic Control Program and Division budgeted funds has reduced the acreage of cogon grass found on the WSF. Since the plans inception every known spot of cogon grass has been treated on the forest. As new exotics are found control strategies are researched, then implemented. The staff at WSF is utilizing GPS/GIS information to better relocate plants and problem areas once identified. Within the next five years the completion of maps for exotics will be a high priority.

Objective 5: Scrutinize all management activities for their connection to the spread of exotics.

Status: As mentioned earlier the staff at WSF has designed a procedure where an environmental analysis is conducted on any major activity. Areas, which may be impacted and are reviewed, include the following: recreational, hydrological, exotic species, endangered species, historical resources, etc. All management activities are designed to limit and or prevent the establishment or spread of exotic species.

Objective 6: Conversion of off-site pine to native longleaf pine.

Status: Due to drought conditions and insect activity on the forest some stands have not been converted. These areas will be earmarked for restoration efforts in next two years. Areas still containing off-site slash will be thinned and the ground cover allowed to recover before final restoration, once market conditions and weather factors moderate. WSF has restored 1,525 acres of off site slash pine to native longleaf pine within the last five years.

Objective 7: Use of low impact site preparation and reforestation techniques will be explored.

Status: The staff on the WSF is continually looking for new and innovative ways of restoring disturbed sites. In the past five years the staff has utilized herbicides, heavy- duty mowers, and hardwood chipping operations to restore overgrown sandhill communities.

Goal 2: To ensure long-term viability of populations and species considered rare, endangered, threatened, or of special concern.

Objective 1: Conduct biological surveys for endangered species.

Status: Currently WSF has one biologist on staff who has set up a biological monitoring program, which includes sampling for fox squirrel nests and gopher tortoise burrow densities and sizes. This project was initiated in the spring of 2001. WSF has been actively monitoring RCW's by doing nesting season surveys, mapping cavity trees and activity surveys as well as the banding of all birds in the Croom Tract of the forest. Surveys have also been conducted on the endangered plant species Justicia cooleyi.

Objective 2: Prescribed burn approximately 10,800 acres during the growing season and 12,800 acres during the dormant season and reach a 2-7 year burn rotation with an average of 4 years.

Status: During the past five years the Division has experienced an abundance of rain (96-98), drought and insect activity. These three factors have reduced our prescribed burn acreage significantly. In (98-99) WSF met its goal of 20,800 acres.

Objective 3: Create a system for recording data on prescribed burns and wildfires. Data will include a detailed map with fire boundaries.

Status: Included in this 5-year plan are the burn maps for the WSF. Paper documentation exists on all burns conducted on the forest in the Resource Section. Next step will be to integrate this information into a database, utilizing Arc-Info.

Objective 4: Effectively manage WSF Red-Cockaded Woodpecker population.

Status: RCW management plan was completed and approved by the State Office. All known RCW trees in Croom have been resurveyed, numbered, and mapped using GPS/GIS information. Statuses of known clusters are identified. RCW's in Croom have all been banded and Division staff and volunteers are monitoring active clusters. Currently, in the Citrus Tract, clusters are being resurveyed, numbered and mapped as well as being monitored by Florida Fish and Wildlife Conservation Commission (FWC) personnel and volunteers. Since 1999 the Division of Forestry has translocated 15 RCW's from the Apalachicola National Forest and Fort Stewart in Georgia. Since 1999 the Division of Forestry has installed 80 RCW cavity inserts with 13 being placed in the Citrus Tract and 67 in the Croom Tract. The completion of this project will be a high priority. In the past 5 year period all known birds in Croom and 80 % of all known birds in Citrus have been banded cooperatively by Division and FWC personnel.

Goal 3: Practice sustainable forest management utilizing sound silvicultural techniques.

Objective 1: Provide for a sustainable yield of a broad range of forest products following sound silvicultural practices.

Status: The WSF is actively engaged in silvicultural practices that will enhance the quality of our native communities. The Division's long-range goal is to proceed to an uneven-aged management of the forest that will provide a sustainable product. Emphasis has been placed on the restoration of off-site slash plantations to more site appropriate species. However, due to fire activity and an insect outbreak in the last two years restoration has slowed. When conditions improve, areas containing off-site slash will be thinned and the ground cover allowed to recover before restoration to longleaf pine.

Objective 2: Relocation of the South Florida Slash Pine Orchard further south in the state.

Status: Currently the staff of the seed orchard is working with Lykes Brothers to reestablish a seed orchard in South Florida. Grafting of these trees has been ongoing with grafted plants being established in their southern native range. To date, 100 trees have been grafted at the Withlacoochee State Forest Seed Orchard as well as sending Lykes 1,800 cuttings (scion) for grafting locally.

Goal 4: Integrate human use through a total resource concept, not emphasizing any particular use over the others, or over restoration, maintenance and protection of native ecosystems.

Objective 1: Develop a comprehensive Road Management Plan, which will review forest access and the welfare of the WSF.

Status: The WSF has recently undertaken the task of utilizing GPS information to map all known open/closed roads on the WSF. 90% of this mapping is complete. Some roads in Citrus, Croom and Richloam have been closed. To date, approximately 40% of the road management plan has been completed.

Objective 2: Improvements to signage.

Status: This objective was met in the Croom Tract of the WSF. Road signs were erected at major intersections. The remaining tracts will be addressed as the Road Management Plan gets completed. Kiosks were also placed at major recreational areas and trailheads throughout the forest, informing forest users of trail locations, distances, etc.

Objective 3: Satisfying the public need for outdoor, resource based recreation opportunities while conserving land, water and other environmental resources.

Status: The numerous programs offered to the public relating to outdoor recreation have met this objective. Each year the WSF has held a State Forest Awareness Week, a Winter Walk Program, and has issued well over 1,100 special use permits for different events. The Division has also electrified more campsites, renovated bathouses, and increased staffing to better serve the public.

Objective 4: Increase the public's awareness through more interpretive work.

Status: The WSF has worked to build more kiosks, place interpretive signage relating to resource management in Citrus, Headquarters, and Croom Tracts. Numerous articles have occurred through a variety of media outlets on topics such as: RCW management, sandhill restoration, etc. Staff has also participated in numerous civic/community meetings, school events, parades, environmental education programs, etc.

Objective 5: Develop an off-road (non-motorized) bike trail.

Status: A 55-mile off-road bike trail was developed by WSF staff in conjunction with a local off-road bike club, The Southwest Association of Mountainbike Pedalers (SWAMP). The current trail system was developed using an old enduro (motorized) trail. Utilizing already disturbed sites minimized impact to the forest.

Objective 6: Additional staffing levels.

Status: Additional staffing was secured for several of our CARL lands. Currently, we have 2 foresters and 2 senior rangers who oversee the daily activities on our CARL acquired lands. Original management needs asked for four (4) park rangers. As of this plan, only 1 park ranger has been funded.

Objective 7: Initiation of a volunteer program/citizen support organization coordinator.

Status: The citizen support coordinator position was created in 1998. Since that time our volunteer program has grown from 9,267 volunteer hours in 98/99 to 9,785 volunteer hours in 00/01. Volunteers are used in almost every section in the Withlacoochee Forestry Center.

Objective 8: A position is needed to develop a geographic information system database and mapping software.

Status: In 1999, a forester was hired to begin the process of developing a GIS systems database for the Withlacoochee State Forest. In the past year, he has been able to complete 90% of our road mapping survey, a database for RCW cavity tree location and activity as well as the mapping of our exotic species. We have been able to GPS all trails in Croom and hope to complete the remaining trails in our other tracts within the next year.

Objective 9: Prepare a Fire Management Plan.

Status: As of 6/11/01, the Chief of Forest Protection and the Chief of Forest Management have approved the Withlacoochee State Forest Fire Management Plan.

Objective 10: Reduction in the Department's Cracker Cattle herd and a withdrawal from our yearly participation in the state fair.

Status: The staff at Withlacoochee is currently keeping the cattle herd at approximately 75 head, a manageable size for our staffing levels. The Withlacoochee Forestry Center has reduced the cattle's participation in the state fair.

Objective 11: Acquisition of additional lands and in-holdings.

Status: The Division of Forestry has been very active in purchasing adjacent lands and in-holdings as they become available. Several purchases have helped to straighten our boundaries in Citrus, Baird and Jumper Creek. The staff is continually on the lookout for parcels for sale and when identified, notify our staff in the state office. A total of 10,885 acres have been purchased since 10/96.

GOALS/OBJECTIVES FOR WSF FOR THE NEXT FIVE-YEAR PERIOD.

Goal 1: To restore, maintain, and protect in perpetuity all native ecosystems.

Objective 1: Protect integrity of natural communities through acquisition of adjacent parcels and in-holdings within the optimal management boundary.

Performance measure: Acres acquired from willing sellers

Objective 2: Protect environmentally sensitive and biological highly productive lands from the potentially hazardous impact of arthropod control measures through the preparation of arthropod control plan(s) by the local mosquito control districts.

Performance measure: Arthropod Control Plans prepared and accepted.

Objective 3: Improve the health of native ecosystems through an aggressive program of prescribed fire in all fire maintained natural communities.

Performance measure: Fire Management Plan updated annually, Acres treated with fire, Fire return interval for each fire maintained community closely mimics the natural fire return interval for each community type.

Objective 4: Protect environmentally sensitive communities and ecotones when preparing firelines and carrying out management work by maintaining current maps and providing staff training.

Performance measures: Research and map sensitive areas, improve staff training in protecting sensitive communities.

Objective 5: Protect sensitive habitat from encroachment and illegal trespass through replacement of gates and maintenance of boundary lines.

Performance measure: Miles of boundary fence repaired and number of gates repaired or replaced.

Objective 6: Remove off-site pine and restore sandhill community using growing season fire, harvesting of pines and reforestation with longleaf pine where needed.

Performance measure: Off-site stands mapped, number of acres of off-site pine removed, acres of sandhill treated with growing season fire, monitoring of sandhill endemics (gopher tortoise, fox squirrel, wiregrass, etc.) to determine success of sandhill restoration.

Objective 7: Remove mature sand pine and invading hardwood species and restore small scrub community and maintain using prescribed fire.

Performance measure: Acres of sand pine/hardwood removed, acres of scrub treated with prescribed fire, presence and health of scrub endemics.

Objective 8: Identify, map, and begin control of exotic species found on the forest.

Performance measure: Species identified, locations mapped, and acres treated by species.

Goal 2: To insure long-term viability of populations and species considered rare, endangered, threatened, or of special concern.

Objective 1: Institute an ongoing program (FNAI follow-up) of surveying and monitoring for listed species of plants and wildlife.

Performance measure: Set up a survey schedule and initiate; prepare a map locating listed species, breeding areas and or their habitat.

Objective 2: Effectively manage WSF Red-Cockaded Woodpecker population.

Performance measure: Number of clusters surveyed and mapped, number of birds banded, number of inserts installed, number of active nests, number of inactive nests, number of clusters managed for hardwood encroachment and develop a revised RCW plan.

Goal 3: Conduct hydrological restoration projects on wetlands altered by man-caused activities.

Objective 1: Restore natural sheet flow and reduce erosion along trails and roads.

Performance measure: Culverts replaced or installed at critical trail/road crossings, turnouts installed/maintained, number of hard bottom crossings installed and number of ditch blocks installed.

Objective 2: Protect water resources during management activities through the use of Silvicultural Best Management Practices (BMP's).

Performance measure: Compliance Percentage with State Lands BMP's.

Objective 3: Ensure the monitoring of ground and surface water resources by the water management district.

Performance measure: Monitoring results received/evaluated/filed annually.

Goal 4: To Protect known archeological and historical resources.

Objective 1: Cooperate with the Division of Historical Resources in the planning phase of any ground disturbing activities.

Performance measure: Documentation and follow up using the environmental analysis process, updated archeological/historical site map, additional staff trained in archeological monitoring procedure, staff trained in compliance rules and site location.

Goal 5: Practice sustainable forest management utilizing sound silvicultural techniques.

Objective 1: Update and maintain current inventories of merchantable timber resources and forest growth/health.

Performance measure: Update and maintain current inventory during next 5 years on stands affected by activity or moving from a pre-merchantable class to merchantable class.

Objective 2: Implement program of sustainable silviculture that enhances natural diversity with minimal environmental impact.

Performance measure: Completed environmental analysis on all silvicultural activities. Which includes an emphasis on endangered species, archeological monitoring road usage, etc. (Exhibit A)

Objective 3: Relocation of the South Florida Slash Pine Orchard further south.

Performance measure: Number of trees grafted, number of trees transported south, number of cuttings (scion material) given to Lykes.

Objective 4: Reforestation/restoration of clearcut acres affected by fire and insect activity, utilizing appropriate silvicultural practices, such as, prescribed fire, mechanical or herbicides, for effective control of competing vegetation.

Performance measure: Number of acres successfully reforested, with adequate survival.

Objective 5: Thinning of overstocked mesic flatwoods.

Performance measure: Acres thinned.

Goal 6: Provide for compatible public access, integrating human use through a program of resource based forest recreation, not emphasizing any particular use over the others, or over the restoration, maintenance and protection of native ecosystems.

Objective 1: Enlist additional volunteers and volunteer organizations to assist with recreation and/or resource management.

Performance measure: Number of volunteer hours, number or miles of trails maintained and marked.

Objective 2: Increase the public's awareness through more interpretive work, including additional trail markings, trailhead signage and forest related programs.

Performance measure: Number of kiosks built, number of interpretive signs erected, number of forest programs given.

Objective 3: Develop and implement a recreational monitoring program.

Performance measures: Develop standards for monitoring recreational usage, documentation of the number of visitors to recreational areas/trails, closure of recreational areas/trails for rehabilitation, vegetative sampling indicating degradation or rehabilitation.

Objective 4: Provide public access to newly acquired lands.

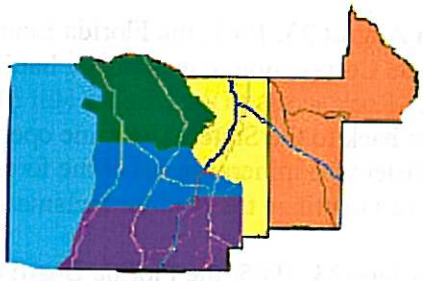
Performance measures: Number of new brochures developed for newly acquired lands indicating access points, trails, or points of interests.

Objective 5: Improve recreational related infrastructure.

Performance measures: Number of recreational structures improved.

I. ADMINISTRATIVE SECTION

A. Common Name of the Property
Withlacoochee State Forest



B. Location, Boundaries & Improvements
A map of the property is attached and shows the location of the boundaries of the forest, which is located in portions of Citrus, Hernando, Lake, Pasco, and Sumter Counties. **(Exhibit B)** Improvements are identified on maps in the recreation section as well as in **Exhibit J.**

C. Legal Description and Acreage
The Withlacoochee State Forest is made up of seven different tracts and two units of land in five separate counties. Their approximate acreages are: Richloam, 49,201; Citrus, 42,613; Croom, 23,488; Jumper Creek, 11,073; Homosassa, 5,676; Headquarters, 2,087, Two Mile Prairie, 2,896, and Annutteliga Hammock Unit (Citrus Tract), 8,490; and Baird Unit (Richloam Tract), 11,567. Total acreage is 157,091.

Copies of legal descriptions and deeds are on file at the Florida Department of Environmental Protection (DEP) and Division of Forestry State Office and Withlacoochee Forestry Center.

D. Degree of Title Held By the Board

The Board of Trustees of the Internal Improvement Trust Fund holds fee simple title to the property known as the Withlacoochee State Forest (WSF). The United States of America retained mineral rights for the original parcels acquired by the State of Florida. A copy of the lease agreement between the Board and the Division of Forestry providing authority for the Division of Forestry to manage the WSF can be found in our Tallahassee office. The Board and the Southwest Florida Water Management District each hold half interest in the Two Mile Prairie Tract. The Division also manages timber on an adjacent 4,448 acres of Southwest Florida Water Management District (SWFWMD) land in Lake County known as the Little Withlacoochee Management Area. This parcel is managed as a part of our Richloam Tract and is included as part of the total acreage of the Withlacoochee State Forest.

E. Leases and Easements

There are numerous leases, easements, and permits for a variety of uses on the WSF. A majority of them are small; some provide utility access to landowners, many are for road right-of-way. Several of the more substantial leases are listed below. Copies of these documents are available upon request.

1. There is a sublease on 296 acres within the Citrus Tract with the City of Inverness for the Whispering Pines Recreation Park. This sublease was executed January 15, 1991, for a twenty-five year term and renews the use provisions originally granted in an easement dated September 21, 1965.

2. An easement for a 500 KV electric transmission line was granted to Florida Power Corporation on 236.64 acres in the Richloam Tract, all within Sumter County. It was executed on December 17, 1982, for a twenty-five year term, and can be extended for an additional twenty-five year period as long as Florida Power Corporation fulfills the necessary requirements.

3. On February 6, 1986, a ten-year sublease was executed between the Department of Agriculture and Consumer Services and the Citrus County School Board for a law enforcement and fire-fighting training facility. Currently this facility is located in the closed section of the Citrus County landfill. An option to renew the lease for an additional five years was exercised in February of 1996. At this present time the lease for this facility has expired and renewal of the lease is pending.

4. On August 23, 1961, the Florida Board of Forestry entered into an agreement with Florida Rock Products Corporation to construct a haul road on portions of the Citrus Tract. This easement allows Florida Rock access to their Radar Hill Mine site as long as the mine is active, after which the easement reverts back to the State. The mine operated under a lease with the United States Forest Service who administers the mineral rights of the forest. The mining lease expired on July 29, 1998. Florida Rock continues to utilize the road for reclamation of the Radar Hill Mine with Division permission.

5. On June 23, 1965, the Florida Board of Forestry entered into a Special Use Permit with the Florida Game and Fresh Water Fish Commission, allowing the Commission to use 60 acres of the Richloam Tract for the purpose of constructing and operating a fish hatchery. On May 4, 1979, another Special Use Permit was executed for a 30-acre expansion. Again, on July 12, 1991, the Special Use Permit was amended to include an additional 86 acres.

6. On August 24, 1978, the Department of Agriculture and Consumer Services, Division of Forestry entered into a Special Use Agreement with the Department of Children and Families formerly known as The Department of Health and Rehabilitative Services (HRS). On September 8, 2000, The Florida

Department of Agriculture entered into a sublease with the Florida Department of Juvenile Justice (DJJ) for a period of ten years ending on September 7, 2010. The sublease allows the DJJ to operate its Short Term Offenders Program on five acres of the Richloam Tract.

7. On July 6, 1967, a 19,000-acre easement within the Richloam Tract was granted to the Southwest Florida Water Management District (SWFWMD) for use as a water retention site for parts of the Four Rivers Basins (FRB) flood control project. The Division retained the rights to manage timber on the easement. Additionally, the Division gained the rights to manage the timber on an adjacent 4,448 acres of SWFWMD land known as the Little Withlacoochee Management Area. The FRB project has since been decommissioned but the agreements between the agencies remain in effect.

8. On September 27, 1985, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida executed a Deed transferring 400 acres of the Croom Tract to the United States of America for a Veteran's Administration National Cemetery. On October 26, 1999, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida executed a Deed transferring an additional 113 acres to the United State of America for an addition to the Veteran's Administration National Cemetery as well as an easement of .5 acres across WSF for access to the property transferred to the Veterans Administration.

9. Beginning October 1, 1975, the Florida Board of Forestry granted a ten year Special Use Permit to Citrus County to operate a 60-acre landfill in the north part of the Citrus Tract. This Special Use Permit was extended on May 12, 1983, to run through January 1, 1988, and again on April 21, 1987, to run through December 31, 1990. The Special Use Permit for landfill activities has expired but Citrus County retains the right of access for maintenance activities.

10. On May 25, 1995, the Land Management Advisory Council approved a twenty-five year agreement between the Division and Citrus County allowing Citrus County to move offices, recycling facilities, and other items onto the former landfill. In exchange, the Division received road building materials, labor, and an exotic species survey on the Citrus Tract.

11. On March 24, 1987, the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida accepted from Citrus County 81 acres of land adjacent to the Citrus Tract in exchange for 80 acres proximal to the former landfill. Citrus County has an active landfill and recycling center on their new acquisition.

A more comprehensive listing of leases, easements and use permits found on the Withlacoochee State Forest can be obtained for the Withlacoochee Forestry Center Headquarters in Brooksville.

F. Proximity to Other Public Resources

Lands managed by State, Federal, Local government or other conservation organizations for the conservation of natural or cultural resources which are located within approximately 50 miles of the Withlacoochee State Forest include: **(Exhibit B)**

FIGURE 1: Table of Public Lands.

TRACT	AGENCY	DISTANCE
Ocala National Forest	USFS	45 Miles Northeast
U. S. Department of Agriculture	USDA	Adjacent to Croom
Dade Battlefield	DEP	12 Miles East
Chinsegut Nature Center	FWC	Adjacent to Headquarters South
Ft. Cooper State Park	DEP	4 Miles East of Citrus
Big Pine Tract	FWC	4 Miles South of Headquarters

Chassahowitzka Wildlife Management Area	FWC	8 Miles West of Headquarters
Chassahowitzka National Wildlife Refuge	USFWS	Adjacent to Homosassa Tract
Greenways Trail	DEP	8 Miles North of Citrus
Townsend Park	H.C.	4 Miles East of Headquarters
Seminole State Forest	DOF	50 Miles East of Headquarters
Two Mile Prairie	DOF/SWFWMD	8 Miles North of Citrus
Half Moon	FWC	10 Miles East of Citrus
Chassahowitzka Riverine Swamp	SWFWMD	Adjacent to Homosassa
Flying Eagle Ranch	SWFWMD	Adjacent to Jumper Creek
Homosassa Springs	DEP	6 Miles North of Homosassa Tract
Tom Varn Park	COB	9 Miles South of Headquarters
Weeki Wachee Preserve	SWFWMD/H.C.	25 Miles SW. of Headquarters
St. Martins Marsh	USFWS	Adjacent to Homosassa
Steve Fickett Preserve	H.C.	8 Miles SW. of Headquarters
Janet Butterfield Brooks Preserve	N. C.	8 Miles SW of Headquarters
Perry Oldenburg Mitigation Park	FWC	Adjacent to Headquarters
Ocochee Hill Preserve	A.S.	Adjacent to Headquarters
Jenkins Creek	H. C./SWFWMD	12 miles South of Homosassa Tract
Green Swamp Wilderness Preserve	SWFWMD	Adjacent to Richloam South
Potts Preserve	SWFWMD	Adjacent to 2 mile Prairie
Withlacoochee State Trail	DEP	Adjacent to Croom

USFS	United States Forest Service	H. C.	Hernando County
USFWS	United States Fish and Wildlife Service	N. C.	The Nature Conservancy
FWC	Fish and Wildlife Commission	A.S.	Audubon Society
DEP	Department of Environmental Protection	DOF	Division of Forestry
SWFWMD	Southwest Florida Water Management District	COB	City of Brooksville

G. AQUATIC PRESERVE/AREA OF CRITICAL CONCERN

Contiguous with the Homosassa Tract of the WSF is Saint Martin's Marsh in Citrus County, which is designated as a State Aquatic Preserve. This is the only Aquatic Preserve adjoining the management boundaries of the WSF. As an Aquatic Preserve, St. Martin's Marsh also has "Outstanding Florida Waters" (O.F.W.) status.

A portion of the northwestern boundary of the "Green Swamp Area Of Critical State Concern" is contiguous with the southeastern boundary of the Baird Unit. Due to their environmental sensitivity and a real threat of development, the State places a high priority for acquisition in these areas.

II. ACQUISITION INFORMATION/LAND USE CONSIDERATIONS

A. Land Acquisition Program

The lands forming the original core of the Withlacoochee State Forest were acquired from private owners by the Federal Government under provisions of the U.S. Land Resettlement Administration, and designated as project FLA-LU-3. It was acquired during the period of 1936-1939, for an average price of $4.20 per acre.

Originally, this project contained 113,172 acres in portions of Citrus, Hernando, Pasco, and Sumter counties. The lands were managed by the Soil Conservation Service from 1939-1954. During this period, limitations on available funds restricted management activities. Most of the work performed was custodial in nature with small areas being planted with pine seedlings. Almost the entire area was open to grazing, preventing the establishment of adequate stands of timber on large areas of the project.

In 1954, the management responsibilities for the Withlacoochee Land Use Project were transferred to the U.S. Forest Service. Most of the local personnel that had been employed by the Soil Conservation Service on this project were transferred to the U.S. Forest Service.

The U.S. Forest Service managed the property until a lease-purchase agreement, executed on September 15, 1958, leased the property to the Florida Board of Forestry. At that time, the Florida Forest Service assumed management responsibilities and most of the local personnel working on the project were transferred, this time to become State of Florida employees.

The lease-purchase agreement provided that the Florida Board of Forestry must complete the payment of the purchase price of $6,163,328 (about $54.00 per acre) to the Federal government over a twenty-five year period. There was an added stipulation that the initial ten years would be interest free, and that the interest rate for the remaining fifteen years would be four percent per year on the unpaid balance. The final payment was made in October 1982, and the title was transferred (113,172 acres) to the State of Florida in February, 1983.

Withlacoochee has continued to acquire new lands through State and Division acquisition programs. The first major addition was in 1981 through the Environmentally Endangered Lands program was the 10,481 acres in Sumter County, called the Jumper Creek Tract. In April 1992, the Homosassa Tract, consisting of approximately 5,190 acres Conservation and Recreation Lands Program (CARL) and the Baird Unit consisting of 11,567 was purchased, by the Division using P2000 in-holdings and additions funds. Since 1996 several parcels of land have been purchased with CARL, Division P2000, and Save Our River funds. The four largest to date have been the purchase of Sugarmill Woods (Annutteliga Hammock Unit) consisting of approximately 5,201 acres, Jordan Ranch (Two Mile Prairie) consisting of approximately 2,896 acres, PK Smith Ranch consisting of 1,656 acres and most recently the purchase of the Lecanto Sandhill Project consisting of 1,800 acres. Numerous smaller parcels have also been purchased ranging in size from ½ acre to 930 acres, totaling 1,785 acres additional lands since 1996. (See Goal 1 Objective 1 under next 5yr. Goals and objectives)

FIGURE 2: Land Acquisition Table by Tract, Parcel Name and County

TRACT	PARCEL NAME	DEED DATE	NO. LEASE	FUNDING SOURCE	COUNTY	ACRES
CITRUS	NOBLE ROAD	8/11/98	3316	DONATION	CITRUS	19.30
CITRUS	TPL/MATHIS	3/24/99	3316	DOF/P2000	HERNANDO	40.57
CITRUS	TPL/MATHIS	3/24/99	3316	DOF/P2000	CITRUS	159.24
CITRUS	TPL/CASON	9/11/00	3316	DOF/P2000	CITRUS	702.55
CITRUS	USFS	11/26/82	3316	OTHER	CITRUS	41,182.06
CITRUS	C-1	3/26/92	3316	DOF/P2000	CITRUS	39.67
CITRUS	CASON	2/7/96	3316	DOF/P2000	HERNANDO	424.09
CITRUS	SUGARMILL WOODS	5/13/98	3316	CARL	CITRUS	5,201.12
CITRUS	SUGARMILL WOODS	5/13/98	3316	CARL	HERNANDO	32.81
CITRUS	NORMA ERICSON	8/5/98	3316	DOF/P2000	CITRUS	82.89
CITRUS	WORLD WOODS	12/23/98	3316	DOF/P2000	CITRUS	928.42
CITRUS	ZINN & RAUCH	3/25/01	3316	DOF/P2000	CITRUS	1,821.51
CITRUS/CROOM/ RICHLOAM	USFS	11/26/82	3316	OTHER	HERNANDO	34,006.75
CROOM	KELLY/WARNER	3/21/95	3316	DOF/P2000	HERNANDO	281.68
CROOM	P.K. SMITH RANCH	9/30/97	3316	DOF/P2000	HERNANDO	1,656.38
CROOM	GERALD FRIEND	12/30/97	3316	DOF/P2000	HERNANDO	23.56
CROOM	P.K. SMITH RANCH, DIPPING VAT	5/22/98	3316	DONATION	HERNANDO	10.00
CROOM/RICHLOAM	USFS	11/26/82	3316	OTHER	SUMTER	30,941.30

HEADQUARTERS	TNC/ALLEN	12/28/94	3316	DOF/P2000	HERNANDO	40.37
HEADQUARTERS	MARSH	12/14/95	3316	DOF/P2000	HERNANDO	491.23
HEADQUARTERS	TPL/BRONSON	1/18/95	3316	DOF/P2000	HERNANDO	126.35
HEADQUARTERS	JANCZAK & BARRETT	3/16/00	3316	DOF/P2000	HERNANDO	39.21
RICHLOAM	USFS	11/26/82	3316	OTHER	PASCO	7,042.86
RICHLOAM	HERNANDO RANCH/BOWMAN	12/21/94	3316	DOF/P2000	HERNANDO	583.00
RICHLOAM	HERNANDO RANCH/BOWMAN	12/21/94	3316	DOF/P2000	SUMTER	2.00
RICHLOAM	BAIRD/SLEMONS	3/16/95	3316	DOF/P2000	SUMTER	11,567.46
RICHLOAM	WASHBURN	3/21/95	3316	DOF/P2000	HERNANDO	481.13
JUMPER CREEK	CUMMER	9/7/78	3560	EEL	SUMTER	10,148.18
JUMPER CREEK	WILDER	9/1/93	3560	DOT	SUMTER	120.00
JUMPER CREEK	INDIAN FIELDS	1/27/95	3560	DOF/P2000	SUMTER	324.00
HOMOSASSA	ROOKS	4/1/92	3994	CARL	CITRUS	5,190.00
HOMOSASSA	MULTI	1/18/94	3994	CARL	CITRUS	278.96
HOMOSASSA	KRYSHER/DELZER /FEDDELER	4/10/96	3994	CARL	CITRUS	28.56
HOMOSASSA	CARL/BEERS	2/20/95	3994	CARL	CITRUS	2.00
HOMOSASSA	DELORES J. JENNINGS	3/11/96	3994	CARL	CITRUS	8.97
HOMOSASSA	MERLIN J. & ORELIA C. DIXON	3/14/97	3994	CARL	CITRUS	0.75
HOMOSASSA	WILLIAM G. LAMBUTIS	12/19/96	3994	CARL	CITRUS	0.98
HOMOSASSA	FRIEDA LANGMAN	8/29/97	3994	CARL	CITRUS	0.96
HOMOSASSA	R.R. MOUNTAIN	7/28/97	3994	CARL	CITRUS	3.99
HOMOSASSA	BLACK, BILLY G.	1/31/00	3994	DOF/P2000	CITRUS	80.57
HOMOSASSA	BLACK , B.G. & CATHERINE P. CONRAD	2/3/00	3994	DOF/P2000	CITRUS	80.08
HOMOSASSA	DONALD C. & ARAH ELIZABETH HUGUS	2/18/98	3994	CARL	CITRUS	0.18
TWO MILE PRAIRIE	JORDAN RANCH	1/8/97	4145	CARL/SOR	CITRUS	2,896.15

Information provided to Withlacoochee Forestry Center from the Forest Management Section of the Florida Division of Forestry.

TOTAL ACRES	157,091.84
CARL & P2000	41,948.06
DOF P2000	18,154.45
CARL	23,793.61
ORIGINAL	113,172.97

B. Legislative Or Executive Constraints

There are no known legislative or executive constraints specifically directed toward WSF. The only known constraint would be the deed restriction when the U. S. Government property was conveyed, which states the property must be used for public purposes. The U. S. Congress is considering removing this reservation on a limited basis to allow for land transactions needed to consolidate forest boundaries.

C. Purpose For Acquisition

The land that was to become the original portion of the WSF was acquired by the Federal Government to revegetate, resettle and protect the area following extensive management by land and timber companies in the early 1900's. In the mid 50's the land was leased to the state for resource management. Additional lands continue to be acquired for the forest through the State and Division acquisition programs.

Projected uses for the forest continue to be consistent with the concepts of ecosystem restoration and multiple-use management, which include but are not limited to: timber management, recreation, water-resource protection, research, and forest-ecosystem protection. Multiple-use management is mandated under Chapter 589.04(3), Florida Statutes. Further authority for the Division to manage using this method is found in Chapters 589.011, 589.07 and, 589.09, Florida Statutes.

Certain tracts of the WSF were purchased under the Conservation and Recreation Lands Program (CARL). Objectives for the acquisition of lands under the CARL program are: 1) to conserve, protect, manage, and restore important ecosystems, landscapes and forests especially if the protection and conservation of such lands is necessary to enhance or protect significant surface water, ground water, coastal, recreational, timber, or fish and wildlife resources which cannot otherwise be accomplished through local and state regulatory programs, 2.) To provide areas, including recreational trails, for natural-resource-based recreation, 3.) To conserve and protect native species habitat and/or endangered species. The Division interprets this to include species of special concern, 4) To conserve and protect environmentally unique and irreplaceable lands that contain native, relatively unaltered flora and fauna representing a natural area unique to, or scarce within, a region of this state or a larger geographic area. 5.) To preserve archaeological or historic sites.

D. Designated Single Or Multiple-Use Management

The WSF is designated for multiple-use management with the Division acting as lead manager as stated in Multiple Agency Lease Agreement No. 3316, 3560, 3994, 4145. Authority for multiple-use management is given and defined under Florida Statutes, Chapters 253.034 and/or 589.04. Ecosystem management is the overall concept for multiple-use, which provides for human uses of the Forest and its resources that are compatible with the perpetual maintenance of its native ecosystems.

E. Alternate Uses Considered

WSF has always been managed for multiple use purposes consistent with the conservation of its natural resources. Due to the size and location of the WSF, numerous demands are placed upon it and requests made to utilize the land base and attendant resources. These requests vary with examples such as: a "humane society" type shelter, expansion of county or state roadways, and mining activities (both actual mines and/or haul roads). For the same reason, support is given to managed resource based recreation and not to user-based activities that routinely require significant site/resource modifications.

Other uses have been included and/or are being reviewed for inclusion into the plan. Privately operated concessions on State Forests are under consideration. These could include food and drink-type concessions in the major recreation areas. If established, they will be a source of additional income and would provide an additional benefit to the forest users. The rental of space on our 300' radio tower for use by a mobile communications provider may provide additional revenue.

Outfitter concessions for canoe vendors have been implemented. Other concession permits are being studied. Businesses of this type include bicycle vendors, horse outfitters, etc., that would like to utilize the forest resources for profit. Permits for these types of activities would enable the State Forest to 1.) gain an income from the concessionaires who use the forest resources, and 2.) control the number of concessionaires on a particular resource. The intent, when allowing these arrangements, is for the recreational concessions to provide additional revenue to the state, not create an additional governmental cost.

Additional alternate uses that are currently being implemented on the state forest are cattle grazing leases, the permitting of firewood cutting areas, and hardwood harvesting for sandhill restoration, rental fee

collection for rental of buildings for reunions, weddings, etc. Honor fees are now being collected at most of our day use areas.

No other alternate uses are being considered at this time. As requests are made they will be considered as appropriate, with the management goals and objectives of the forest. The following uses were considered and determined not compatible: deadhead logging, water resource development projects, water supply development projects, storm-water management practices, linear facilities, cell towers, landfills or the expansion of existing landfills. Other uses will be considered as requests are made and will be accommodated as appropriate if they are determined to be compatible with existing uses and with the management goals and objectives of the forest.

F. Additional Land Needs

Management of the forest would be improved by acquiring various in-holdings and adjacent properties. Private parcels lying wholly within the Withlacoochee often present conflicts to the desired natural resource management plan. Provisions for power lines, telephone lines, access roads, and extra precaution in prescribed burning, maintenance of property lines, etc., create additional impediments to management operations. Likewise, irregular boundary property lines, with private properties projecting into the forest, cause similar problems.

During the past five-year period, additional properties, both in-holdings and adjacent lands, covering approximately 10,885 acres have been purchased. In addition, another parcel separate from the existing seven tracts has been acquired. The new land, the Annutteliga Hammock Unit, is located in west Citrus and Hernando Counties and contains 8,067 acres. This unit also contains in-holdings and boundary line irregularities. A program is in place to purchase land (within the budget resources available) to help rectify this situation.

Efforts continue to acquire additional lands in order to benefit conservation goals, enhance resource management, and reduce the incidence of private/public disagreements. To this end, the Division has set a conceptual goal of acquiring additional lands sufficient to connect the Richloam, Croom, Headquarters, and Citrus Tracts and to purchase in-holdings and adjacent parcels when available and practical within the agency's means. The optimum boundary map (**Exhibit C**) identifies parcels that the Division considers appropriate for acquisition.

G. Adjacent Conflicting Uses

Adjacent residential areas, adjoining highway systems, and proximity to several large municipalities may hinder prescribed burning on the forest due to smoke management concerns. Phase II of the Suncoast Parkway Project is a prime example. It may cut in half the Annutteliga Hammock Unit and border another parcel of the Withlacoochee State Forest making prescribed burning and the impacts of smoke harder to manage. Thus, development of in-holdings and lands adjacent to the forest is a challenge that continues to escalate. Currently, prescribed burning opportunities have become reduced in areas due to portions of the forest being surrounded by housing developments and heavily traveled roads.

H. Surplus Land Assessment

All of the land within the WSF is suitable and necessary for this management plan and none should be considered or declared as surplus. However, several smaller outparcels located close to municipalities or unincorporated subdivisions could be traded for land or sold to secure monies necessary to purchase in-holdings or adjacent parcels of land (**Exhibit D**). Based on the federal lease reverter clause, exchanges of this nature are currently not permitted. Congressional approval is needed to provide the state the ability to surplus any lands originally purchased from the Federal Government.

III. AGENCY & PUBLIC INVOLVEMENT

A. Management Responsibilities

The Division of Forestry is the lead managing agency under authority of Chapters 253 and 589 of the Florida Statutes and is responsible for the management of the land resource and supervision of the multiple-use guidelines related to this resource. Various other agencies provide technical assistance. The Withlacoochee State Forest is managed by the Withlacoochee Forestry Center with its headquarters located in Brooksville.

The wildlife resources on the State Forest are managed in cooperation with the Florida Fish and Wildlife Commission (FWC). The FWC is designated as a "cooperating agency" and is responsible for providing technical advice on the management of wildlife populations, setting hunting seasons, establishing bag and possession limits, and enforcement of rules and regulations related to management of wildlife. Specific responsibilities of each agency are enumerated in the Special Use Permit between the Division of Forestry and the FWC (**Exhibit E**). The Division will cooperate with the Division of Historical Resources (DHR) regarding appropriate management practices on historical or archeological sites on this forest as stated in Section 253.034(4), Florida Statutes.

B. Public And Government Involvement

This plan has been prepared by the Division and will be carried out primarily by that agency. The Division responds to public involvement through direct communication with individuals, user groups and government officials.

The State Land Management Review Team conducted a field review of the forest on June 12 & 13, 2001 regarding the forests last Five Year Resource Management Plan. Their recommendations are addressed in this plan and attached as **Exhibit F.**

The plan was developed with input from the Withlacoochee State Forest Management Plan Advisory Group (MPAG) through a process of review and comment. The advisory group conducted public hearings on September 26 and October 1, 2002, to receive input from the general public. On October 2, 2002 the advisory group conducted a public meeting to discuss and provide input on the plan. Minutes of these meetings are attached as **Exhibit G.** The Acquisition and Restoration Council review serves as an additional public hearing.

A liaison group consisting of various forest users and governmental individuals has been initiated on the Withlacoochee State Forest to help improve communication with the users and the WSF staff. This liaison group meets quarterly to discuss local issues affecting activities and management on the state forest. Draft management plans were provided to the liaison group members to solicit their ideas and recommendations.

In addition an informal citizen-working group of trail users, calling themselves the Withlacoochee Trails Council, have formed and are meeting regularly with the Division to discuss trail issues. The group has coordinated several projects, such as a trail and parking area cleanup. Input from this group was also considered during the development of this plan.

C. Compliance With Comprehensive Plan

This plan was submitted to each Board of County Commissioners within the Withlacoochee Forestry Center (Citrus, Hernando, Lake, Pasco, and Sumter Counties) for review and compliance with their local comprehensive plan. **(Exhibit H).**

All counties within the Withlacoochee Forestry Center area of responsibility have responded and found our plan to be in compliance with their comprehensive plans.

D. Inmate Program

The Inmate Program plays a large part in all of the Withlacoochee Forestry Center projects. This cooperative effort is in conjunction with the Sumter Correctional Institution (SCI), Forestry Work Camp.

The prison inmate program provides unskilled labor for the accomplishment of various tasks on the WSF and at the new Florida Center For Wildfire and Forest Resources Management Training. In fiscal year 1999-2000 the program contributed approximately 47,244 inmate man-hours. These hours represent a saving of $243,306.60 when computed at minimum wage.

In the past year due to budget cuts the Division's Inmate Work Crew Leader positions went from 6 to 5 reducing our inmate numbers by 320 man-hours per week. Further cuts in this program will result in a reduction of services in our recreational areas as well as some core programs of the Division.

E. Volunteers

The volunteer program was activated January 1988 at Withlacoochee and is now a mature program, providing group and individual volunteer assistance to a broad range of Center programs. The Recreation program attracts a majority of the Center's total number of volunteers. The Operations and Resource administrative sections also place volunteers in a variety of positions.

During the upcoming five-year management cycle, target goals will include increasing positive interaction with volunteer groups and, at the same time, providing better awareness of the program among volunteers themselves, Division employees, and the public. The primary means of increasing positive volunteer group interaction will include pursuing partnership opportunities, such as alternative funding of projects through grants and other opportunities. For individual volunteers the focus will spotlight increased feedback and documentation of activities performed.

IV. RESOURCES SECTION

A. Past Uses

Prior to purchase by the federal government in the 1930's, lands making up WSF, that were owned by private landowners who used the land for farming, cattle grazing, logging, phosphate, limerock mining, and hunting. While under federal ownership, the land was primarily managed for forestry purposes. Multiple-use became very important after the Division of Forestry took over management in the mid 1950's.

Past uses while under state management have consisted mainly of timber, recreation, and wildlife management. However, due to the size of this forest, there have been a number of other uses. They include rock, sand and gravel mines, utility corridors, and research projects. Most mining operations were ended prior to state ownership. Since the 1960's, numerous projects have impacted the forest by removing natural areas from management. These projects include the construction in Richloam of the H.R.S. STOP Camp, a Fish Hatchery, and Highway 471; in Croom, the construction of Interstate 75, the Florida National Cemetery, Sumter Correctional Institution, and the Forestry Work Camp; and, in Croom and Citrus, several landfills.

The management objective for timber has been to provide a sustained yield of multiple forest products while following sound silvicultural practices. In the late 1950's and early 1960's, considerable planting of "off-site" (forestry term meaning: species of tree planted in a soil/community type in which it does not naturally occur) slash pine took place on the Citrus Tract. Many of the "off-site" areas have now been

restored to the naturally occurring longleaf pine. The remaining sites will be restored as time and budget allow.

During the 1970's, increased attention was given to wildlife management, environmental activities, and recreation. As a result of the increased interest in these activities, a substantial wildlife food plot planting program was developed, an environmental education center was constructed, and several recreation areas were built. The areas constructed were: Tillis Hill, Hog Island, River Junction, McKethan Lake, Holder Mine and Mutual Mine Recreation Areas, the Croom Motorcycle Area, and the Silver Lake Recreation Complex.

B. Renewable And Non-Renewable Resources

1. Soil Types

Soil types within the **Citrus and Headquarters Tract** are predominately within the Candler-Paola-Tavares association and the Arredondo-Kendrick association. The Candler-Paola-Tavares association is nearly level to sloping, excessively drained, with very thick sandy layers over thin, loamy lamellae. The Arredondo-Kendrick association is nearly level to sloping, well-drained, sandy soil over a loamy subsoil.

Primary vegetation types found on these soils include longleaf pine, turkey oak, sand live oak, and post oak. Smaller acreages of sand pine and live oak hammocks are also present.

Soils within the **Croom Tract** are predominantly upland sandhill types mostly of the Candler-Lake association with some Floridana-Basinger association occurring along the Withlacoochee River. The Candler-Lake association is a nearly level to gently sloping, excessively drained, sandy soil that has a thin lamellae of loamy sand at a depth of 48 to 80 inches.

The Floridana-Basinger association is characteristic of the watershed associated with the shoreline area of the Withlacoochee River. It is nearly level, poorly to very poorly drained, sandy soil. Some of these soils are sandy to a depth of 20 to 40 inches and loamy below, while others are sandy throughout.
Primary tree species typical of the Candler-Lake association are longleaf pine, turkey oak, live oak, laurel oak, and post oak. Primary tree species of the Floridana-Basinger association include bald cypress, live oak, sweetgum, hickory, magnolia, laurel oak, and some slash pine.

The **Richloam Tract and Baird Unit** are primarily flatwoods and cypress ponds with some hardwood hammocks. The soils are predominantly EauGallie, Wabasso, Basinger, and Myakka. Minor soil types include Paisley, Floridana, Anclote, Bushnell, and Delray. Major soil types are characteristically nearly level to gently sloping, poorly drained to moderately well drained, sandy, with weakly cemented sandy subsoil and poorly drained soils, sandy throughout.

Major tree species found in the pine flatwoods include slash and longleaf pine. The predominant tree species of the cypress ponds and strands are pond cypress and black gum. Hardwoods that comprise the hammock areas include live oak, laurel oak, water oak, hickory, sweetgum, blue beech, and magnolia.

Soil types within the **Homosassa Tract** are predominantly within the Basinger-EauGallie-Myakka association and the Okeelanta-Lauderhill-Terra Ceia association. The Basinger-EauGallie-Myakka association is characterized by nearly level, poorly drained, sandy soils, some are sandy throughout, and some have a loamy subsoil at a depth of about 40 inches or more. Native trees include slash pine with cypress and hardwoods found in the depressions.

The Okeelanta-Lauderhill-Terra Ceia association is characterized with nearly level, very poorly drained, mucky soils, in coastal swamps. These soils are ponded most of the year. Native trees consist of sweetgum, cypress, sweetbay, hickory, water oak, laurel oak, and magnolia.

Soils within **Annutteliga Hammock Unit** are predominantly upland sandhill types mostly of the Candler-Lake and Arredondo-Kendrick association. The Candler-Lake association is described above. The Floridana-Basinger is described above. Another soil type found on the tract is the Arredondo-Kendrick association. The Arredondo-Kendrick association is nearly level to sloping, well-drained, sandy soil over loamy subsoil. Primary vegetation types found on these soils include longleaf pine, turkey oak, sand live oak, and post oak. Smaller acreages of sand pine and live oak hammocks are also present.

The primary soil type on **Jumper Creek Tract** is the Gator-Okeelanta-Terra Ceia association. These soils are characterized with nearly level, very poorly drained, mucky soils associated with the floodplain of the Withlacoochee River. Most areas of these soils are subjected to frequent flooding. Native trees consist of water-tolerant hardwoods and cypress.

A more detailed description of soils can be found in the reference library located in the Administrative Complex of the Withlacoochee State Forest, Resource Section.

2. Archaeological And Historical Resources

Information on the archaeological and historical resources of the area has been supplied by the Florida Department of State, Division of Historical Resources. **(Exhibit I)** An update of all known cultural sites was obtained from the DHR in March of 2001. GIS coverage of cultural sites and a database with the corresponding site file information was provided. Utilizing Arc-View GIS software, staff members responsible for cultural sites can view the locations on aerial photos and access a table showing specific site details. This information was provided to allow for the protection of sites during land management activities.

An inventory of historical cemeteries and burial sites on the WSF was also obtained from the Division of Historical Resources. Both active and inactive cemeteries are found on the WSF. They are fenced and maintained, as time and staffing are available. Each has a corresponding DHR site file number and location noted on a base map. Attention will be paid to compliance provisions of Chapter 872 F. S., pertaining to vandalism and damage to marked and unmarked human burials, including the arrest and prosecution of violators of this law.

In 1998, Gulf Archaeology Research Institute (GARI) did an archaeological modeling study for the WSF. The survey was financed in part by a historic preservation grant, and the Withlacoochee River Archaeological Council and WSF staff assisted researchers. No intrusive archaeology was done and the study was not intended to be a formal survey involving the recovery of cultural artifacts. The objective was stated in the final report as follows: "The purpose of this study was to undertake the comprehensive review of previous archaeological, geological and ecological work in the Withlacoochee State Forest to develop a systematic approach to the location, identification, evaluation, protection, and management of cultural resources." The GARI Archaeological Modeling Study produced a database of all known archaeological sites on the Citrus, Croom, Homosassa, Jumper Creek and Richloam tracts of the WSF.

Land management activities within the forest that potentially impact known historical or archaeological sites are covered by the WSF environmental impact analysis process that requires all proposed ground disturbing activities be reviewed by a DHR-certified monitor. The WSF requires a minimum of one staff member to have successfully completed the DHR Archaeological Monitoring course and to be responsible for DHR compliance regarding the management of cultural resources. When required, proposed ground-disturbing activities will be submitted to DHR for review and comment to determine the impact of the

project on cultural resources. The Division of Forestry will comply with all appropriate provisions of Section 267.061(2), Florida Statutes.

Discovery of additional cultural sites can still be expected, especially along any ridges or interior uplands near water sources. Shell middens would be expected along coastal and riverine zones. In the event that new sites are discovered, the Division of Historical Resources will be contacted and protective measures will be implemented to the fullest extent practical to protect these resources. If damage to archaeological or historical sites is detected, Historical Resources will be notified and consulted.

3. Water Resources

The Withlacoochee and Little Withlacoochee Rivers flow north through portions of the Richloam and Croom tracts before exiting into the Gulf of Mexico. The Withlacoochee River, the Little Withlacoochee River, and Jumper Creek are designated as Outstanding Florida Waters. There are several small lakes on the WSF including McKethan Lake on the Headquarters Tract and Boggy Pond in the south end of the Croom Tract. Silver Lake, a wide portion of the Withlacoochee River, is a recreational draw for many visitors to the state forest. All of these water bodies have a water quality classification of III, suitable for fish, wildlife, and recreation.

Significant depressional marshes are found on the Baird Unit in Sumter County. One of the largest depressional marshes found on the property is Giddon Lake. It is a large shallow bowl that during times of high water is a fairly sizeable lake. A hydrological restoration project is being developed in conjunction with DEP and the water management district, which will hopefully restore the lake and the overall hydrology of the Baird Unit.

The Homosassa Tract lies within the coastal region of Citrus County between the Homosassa River and the Chassahowitzka River. The sharp demarcation between the hydric swamp and more xeric vegetative communities immediately to the east is a result of the relatively abrupt elevation change along a relict shoreline. This change represents the boundary between two physiographic zones, the coastal swamp and the Gulf coastal lowlands. The swamp portion is part of the Chassahowitzka Swamp, the largest coastal hardwood swamp along the Gulf Coast of Florida, south of the Suwannee River.

The Homosassa Tract also encompasses portions of Mason and Otter Creeks. There are also seepage areas that become a part of the Hidden River, which flows for 1.0 mile on Southwest Florida Water Management District's (SWFWMD) Chassahowitzka Riverine Swamp land before disappearing underground. Old borrow pits created when limerock was excavated for road construction are now artificial lakes.

4. Fish and Wildlife Resources

WSF supports a large and diverse fish and wildlife habitat. A unique feature of the forest's habitat is the regular prescribed burning program that helps maintain much of the longleaf pine/wiregrass and mesic/wet flatwoods ecosystems. Many wildlife species depend on these ecosystems to survive, including the gopher tortoise, red-cockaded woodpecker (RCW), bobwhite quail, deer, and turkey. Other habitats including, seepage slopes, baygall, man-made lakes, and the Withlacoochee River system occur within forest boundaries. A sampling of species known to occur within these ecosystems includes game species such as white-tailed deer, wild turkey and gray squirrel. Non-game species include gray fox, eastern tiger salamander, bald eagle, indigo snake and the eastern diamondback rattlesnake. Fish species include largemouth bass, long nose gar, channel catfish and the blackmouth shiner.

5. Listed Species

Management of forest communities provides for a diversity of plants and animals. Specialized forest management techniques will be used as necessary to protect or increase listed species, and other rare and

unique species of native vertebrates, invertebrates, or plants. For a compilation of listed species known to be present on the forest see figure 3 on the following page.

The majority of rare plant and animal species on WSF are dependent upon fire maintained habitats (sandhills, flatwoods, seepage slopes). Fire will be allowed to burn into wetland ecotones. Protection of these ecotones from soil disturbance due to heavy machinery is necessary to maintain rare species habitat.

The presence and population of certain species such as the gopher tortoise, Sherman's fox squirrel, and red-cockaded woodpecker can be used to judge the ecological health of some of the natural communities on the state forest. For this reason they are used to guide management since only biologically healthy communities can support healthy populations. The current RCW Management Plan, which is on file at the Division of Forestry State Office and the Withlacoochee Forestry Center, sets long-term conceptual goals and a three-phased short-term plan with measurable objectives that should halt the decline, stabilize and increase the population to the point where, theoretically, it may begin to expand on its own accord. Generally, management schemes that promote these species will favor healthy ecosystems, and encourage a broad diversity of native species.

Management practices that have been used, and will continue to be used to encourage these three species and the associated ecosystem; include prescribed burning, silvicultural techniques such as uneven-aged management, harvesting of hardwood encroachment areas, mowing, and invasive exotic species control. Prescribed burning is the most significant and important practice to improve and maintain habitat for these species and will be treated in this plan in another section. Silviculture and invasive exotic pest control will be discussed separately.

It is important to consider that the decline of any single species, whether plant or animal, may indicate a more serious problem with the health and viability of the ecosystem as a whole. The analysis of the decline of different species in a community can provide clues to problems in the structure, function, and integrity of the ecosystem. The Division will partner with FWC and participate in information sharing with other managing agencies and organizations in order to monitor and maintain healthy populations of listed species.

The table in figure three lists the species considered to be under some degree of threat.

FIGURE 3: Listed Species

MAMMALS		FNAI Global	FNAI State	Federal	State
common name	*scientific name*	Rank	Rank	Status	Status
Southeastern bat	*Myotis austroriparius*	G3	S3	N	N
Florida mouse	*Podomys floridanus*	G3	S3	N	LS
Sherman's fox squirrel	*Sciurus niger shermani*	G5T2	S2	N	LS
Florida black bear	*Ursus americanus floridanus*	G5T2	S2	C	LT
REPTILES		FNAI Global	FNAI State	Federal	State
common name	*scientific name*	Rank	Rank	Status	Status
American alligator	*Alligator mississippiensis*	G5	S4	T(S/A)	LS
Eastern indigo snake	*Drymarchon corais couperi*	G4T3	S3	LT	LT
Gopher tortoise	*Gopherus polyphemus*	G3	S3	N	LS
Southern hognose snake	*Heterodon simus*	G2	S?	N	N
Florida pine snake	*Pituophis melanoleucus mugitus*	G5T3?	S3	N	LS
Short-tailed snake	*Stilosoma extenuatum*	G3	S3	N	LT
AMPHIBIANS		FNAI	FNAI		

common name	*scientific name*	Global Rank	State Rank	Federal Status	State Status
Florida gopher frog	*Rana capito aesopus*	G4	S3	N	LS

BIRDS

FNAI Global Rank, FNAI State Rank

common name	*scientific name*	Global Rank	State Rank	Federal Status	State Status
Limpkin	*Aramus guarauna*	G5	S3	N	LS
Little blue heron	*Egretta caerulea*	G5	S4	N	LS
Snowy egret	*Egretta thula*	G5	S4	N	LS
Tricolored heron	*Egretta tricolor*	G5	S4	N	LS
White ibis	*Eudocimus albus*	G5	S4	N	LS
Southeastern American kestrel	*Falco sparverius paulus*	G5T3T4	S3?	N	LT
Florida sandhill crane	*Grus canadensis pratensis*	G5T2T3	S2S3	N	LT
Bald eagle	*Haliaeetus leucocephalus*	G4	S3	LT	LT
Wood stork	*Mycteria americana*	G4	S2	LE	LE
Red-cockaded woodpecker	*Picoides borealis*	G3	S2	LE	LT
Hairy woodpecker	*Picoides villosus*	G5	S3?	N	N
Florida burrowing owl	*Speotyto cunicularia floridana*	G4T3	S3	N	LS
Least tern	*Sterna antillarum*	G4	S3	N	LT

PLANTS

FNAI Global Rank, FNAI State Rank

common name	*scientific name*	Global Rank	State Rank	Federal Status	State Status
Incised groove-bur	*Agrimonia incisa*	G3	S2	N	LE
Auricled spleenwort	*Asplenium auritum*	G5	S2	N	LE
Spleenwort (unnamed)	*Asplenium verecundum*	N	N	N	LE
Curtiss' spleenwort	*Asplenium x curtissii*	G1	S1	N	N
Sand Butterfly Pea	*Centrosema arenicola*	G2	S2	N	LE
Florida jointtail	*Coelorachis tuberculosa*	G3	S3	N	LT
Greenfly orchid	*Epidendrum conopseum*	N	N	N	CE
Garberia	*Garberia heterophylla*	N	N	N	LT
Crested coralroot	*Hexalectris spicata*	N	N	N	LE
Cooley's water willow	*Justicia cooleyi*	G1G2	S1S2	LE	LE
Pine pinweed	*Lechea divaricata*	G2	S2	N	LE
Pine lily	*Lilium catesbaei*	N	N	N	LT
Cardinal flower	*Lobelia cardinalis*	N	N	N	LT
Florida spiny pod	*Matelea floridana*	G2	S2	N	LE
Pigmy-pipes	*Monotropsis reynoldsiae*	G1Q	S1S2	N	LE
Cinnamon fern	*Osmunda cinnamomea*	N	N	N	CE
Royal fern	*Osmunda regalis var. spectabilis*	N	N	N	CE
Pepper (unnamed)	*Peperomia humilis*	G5	S2	N	LE
Scrub bay	*Persea humilis*	G3	S3	N	N
Yellow fringed orchid	*Platanthera ciliaris*	N	N	N	LT
Wild coco = Giant orchid	*Pteroglossapsis ecristata*	G2G3	S2	N	LT
Needle palm	*Rhapidophyllum hystrix*	N	N	N	CE
Green ladies' tresses	*Spiranthes polyantha*	G3G5	S1S2	N	LE
Little ladies' tresses	*Spiranthes tuberosa*	N	N	N	T
Nodding pogonia	*Triphora trianthophora*	N	N	N	LT
Coontie	*Zamia pumila*	N	N	N	CE
Rain lily	*Zephyranthes atamasco*	N	N	N	LT

Florida Natural Areas Inventory - FNAI

Global Rank: G2 = Imperiled because of rarity or vulnerability to extinction, G3 = very rare and local throughout its range or found locally in a restricted range or vulnerable to extinction, G4 = apparently secure, G5 = demonstrably secure, G#G# = insufficient data for specific rank, G#T# Q= T portion refers to taxonomic subgroup. Q portion refers to questionable validity of subspecies, N = not currently listed

FNAI State Rank: S1 = critically imperiled because of extreme rarity or because of extreme vulnerability to extinction, S2 = imperiled because of rarity or vulnerability to extinction, S3 = very rare and local throughout its range or found locally in a restricted range or vulnerable to extinction, S4 = apparently secure in Florida, N = not currently listed

U.S. Fish and Wildlife Service – USFWS

Federal status: LE = listed as endangered, LT = listed as threatened, C = candidate species for addition to the list of endangered and threatened wildlife and plants, T(S/A) = threatened due to similarity of appearance, N = not currently listed

Florida Fish & Wildlife Conservation Commission – FFWCC

State status – fauna: LE = listed as endangered, LT = listed as threatened, LS = listed as Species of special concern, N = not currently listed

Florida Department of Agriculture and Consumer Services – Division of Plant Industry

State status – flora: LE = listed as endangered, LT = listed as threatened, CE = commercially exploited, N = not currently listed

6. Beaches And Dunes

None present; this is an inland state forest with limited land access to the Gulf of Mexico.

7. Swamps, Marshes, Or Other Wetlands

The Richloam Tract of the State Forest is comprised of approximately 40% wetlands. Pond cypress-dominated dome swamps are interspersed with mesic and wet flatwoods throughout this unit. The Baird Unit contains several large basin marshes.

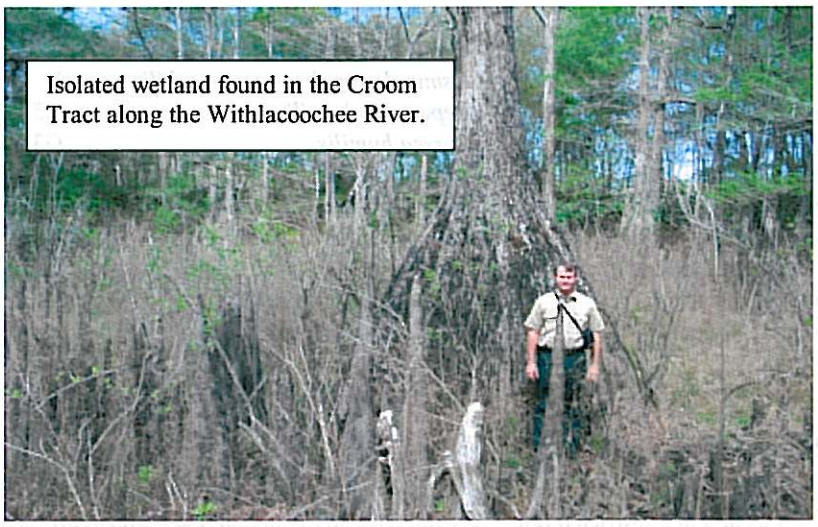
Floodplain swamps, cypress swamps, hydric hammocks, and freshwater marsh, all occur on the Homosassa, Croom, and Jumper Creek Tracts. The Homosassa Tract also contains a significant amount of tidal marsh.

8. Mineral Resources

Mineral resources within this forest include sand, limerock, and phosphate. No estimate of their quality and quantity is currently available. The U.S. Forest Service is currently performing an appraisal of their value. The mineral rights are still owned the by the Federal Government on the original Withlacoochee State Forest (113,172 acres). This clause does not apply to any lands purchased by the state after the initial purchase. Eventually, the mineral rights will be returned to the state once an appraisal is completed and final land exchanges occur.

9. Unique Natural Features

There are many natural features that are unique to the WSF, such as this isolated wetland identified in the photo. This wetland is found in the middle of a sandhill on the Sumter County side of the Croom Tract. The base of this cypress is approximately 6 feet across and the knees in the fore ground are approximately 4 to 5 feet tall. This area is less than 2 acres in size.



Isolated wetland found in the Croom Tract along the Withlacoochee River.

Lizzie Hart Sink, Dames Cave, Bat Cave, and several other unnamed caves are located in the Citrus

Tract. Located within the borders of the WSF are several known maternity caves that are utilized by the Southeastern bat.

The Withlacoochee River, parts of which are considered an Outstanding Florida Water, meanders through portions of the Richloam, Croom, and Jumper Creek Tracts, with approximately 18 miles of shoreline. The Jumper Creek Tract contains the majority of Jumper Creek along with several soapstone islands and natural hardwood hammocks on limestone outcroppings.

The Richloam Tract is part of the vast Green Swamp, which contains the headwaters of 4 major rivers. The Little Withlacoochee River, which empties into the Withlacoochee River just east of Silver Lake, has its headwaters in Richloam. Also in the Richloam Tract are several very significant depression marshes and stands of old cypress and longleaf pine. In the Sumter County portion of Richloam near the Little Withlacoochee River there exists an old-growth stand of cypress.

10. Outstanding Native Landscapes

There are many outstanding native landscapes within the boundaries of the WSF.

Citrus Tract - The Citrus Tract contains one of the largest contiguous stands of longleaf pine left in Florida. This area provides habitat for many species that are indigenous to the longleaf pine/turkey oak/wiregrass community, including the endangered red-cockaded woodpecker. Lizzie Hart Sink contains a unique mixed hardwood hammock reminiscent of more northern states. Hundreds of acres of mixed hardwood forests are found on limestone outcroppings throughout the forest. These beautiful forests are now quite rare because they have either been mined for limestone or converted to farmland. Four hundred acres of sand pine scrub, a rare and rapidly disappearing natural community, are found in the north end of the tract.

Croom Tract - The Croom Tract also contains a large contiguous longleaf pine stand, which provides habitat for many rare species that are native to sandhills. Six miles of the Withlacoochee River either flow through or border the Croom Tract.

Homosassa Tract - The Homosassa Tract contains a portion of the Chassahowitzka Swamp. This swamp is the largest floodplain swamp south of the Suwannee River. Also contained in this tract are areas of undisturbed coastal marsh.

Jumper Creek Tract - The Jumper Creek Tract contains large areas of sawgrass prairies and bottomland hardwood hammocks and hydric hammocks.

Richloam Tract - Richloam contains scattered hardwood hammocks on limestone outcroppings that contain federally endangered plants, such as in Indianhouse Hammock. It is also known for its tens of thousands of acres of high quality cypress/flatwoods landscape. It is a part of the much larger Green Swamp region, which provides an unbroken expanse of protected forest over 30 miles long from north to south.

Baird Unit - The Baird Unit is ecologically similar to Richloam. Besides adding to the vast Green Swamp region it contains very significant hardwood hammocks and two large marshes.

PK Smith Parcel - This newly acquired piece of property is unique in nature as it traverses the Withlacoochee River along its eastern border. The PK Smith unit is upland sandhills that quickly roll into river swamp and some natural bluffs along the river. In the center of the property is a seasonally wet lake known as Rock Lake. To the south of the property is a large river swamp that holds a natural rookery for endangered wood storks.

Annutteliga Hammock Unit-The Annutteliga Hammock Unit is comprised of three isolated parcels; Lecanto Sandhills, Sugarmill Woods, and the World Woods, which are located on the Brooksville Ridge physiographic feature. Elevation of the land ranges from 180 feet above sea level in the western portion to 30 feet above sea level in the eastern portion. Unique features of the tract include limestone outcroppings, and one of the largest preserved upland hardwood hammocks in Hernando County, referred to in a 1987 study as the Big Hammock Region.

11. Insects And Disease

The primary insect and disease related problem within the Withlacoochee State Forest during the past two years has been the infestation of southern pine beetles (SPB), *IPS avulsis*, and black turpentine beetles. These outbreaks increased due to trees being under stress from fire and drought conditions. These species have been found in all tracts of the forest including the seed orchard. Efforts have been made to find and track the insects by surveying the Withlacoochee State Forest by ground and aerial observation. Operational and strategic plans include not only recognition of infestations, but also specific long-range strategies to avoid and/or minimize losses to such outbreaks in the future. Management strategies to accomplish these objectives have been developed in consultation with Division's Forest Health Section. Infested areas are being monitored and/or harvested with 150-foot buffers used to control the spread of SPB. Insect infestations are believed to decrease when trees are healthy and able to defend themselves naturally.

Pitch canker has been found in the Baird Unit, causing the trees additional stress and leaving them vulnerable to insect attacks. Fusiform rust has been found in small amounts in slash pine plantations that tend to be over stocked.

Should other unexpected insect/disease outbreaks occur, state forest management staff personnel will consult with the Forest Health Section to develop scientifically sound responses and/or management prescriptions.

In compliance with Florida Statutes §388.4111, and the lease agreement, all lands contained within this lease have been evaluated and subsequently designated as environmentally sensitive and biologically highly productive. Such designation is appropriate and consistent with the previously documented natural resources and ecosystem values and affords the appropriate protection for these resources from arthropod control practices that would impose a potential hazard to fish, wildlife and other natural resources existing on this property. After approval of this plan, the local arthropod control agencies from the respective counties will be contacted and will be provided a description of the management objectives for WSF. The local arthropod control agency must then prepare a public lands control plan that is subsequently approved by the Division, prior to conducting any arthropod control activities on WSF.

12. Timber Resources

Overall, the Division will implement silvicultural practices, which include harvesting, thinning, burning and reforestation, in an attempt to establish and maintain a healthy forest with a diverse age distribution. Well-timed and executed timber harvests play an integral role in the health of forest ecosystems. Thinning dense forest stands improves understory habitat to allow less damaging prescribed burns and to improve forest health. Timber harvesting is also beneficial in re-establishing native species by removal of off-site species.

The management of timber resources on the WSF will not seek to maximize short-term economic revenue but rather to achieve a wide array of long-term public benefits - many of which are intrinsic and not easily quantified. Good stewardship and resource sustainability are essential goals for any proposed silvicultural

activity. The health of the forest ecosystem is paramount in importance. Due to insect and fire damage, current volumes have been altered extensively.

A comprehensive inventory of merchantable pine stands was completed in September 1997, and the fieldwork for a hardwood inventory was completed in October 1999, following Division's established procedure. From the 1997 standing pine inventory, it was determined that there was approximately 642,890 tons of sawtimber, 631,831 tons of pulpwood and 688,730 ton of chip-n-saw. On WSF the 1999 hardwood inventory provided the following volume estimates: 212,169 tons hard hardwood sawtimber, 441,983 tons hard hardwood pulpwood, 65,690 tons soft hardwood sawtimber, 55,724 tons soft hardwood pallet/cleat, 109,273 tons soft hardwood pulp, 673,616 tons cypress sawtimber, 851,454 tons cypress B grade, and 498,034 tons cypress mulch on 40,738 acres. This data is according to our inventory data files. Recent acquisitions have additional standing pine and hardwood that will be inventoried. Inventories will be updated on a continual basis according to guidelines established by the Forest Management Bureau.

The Division practices sustainable timber management in the state forest system, which means annual harvest volumes on each state forest are not to exceed the annual growth rate. This is accomplished by periodically obtaining accurate estimates of standing timber inventories in order to assure that the timber resource will not be depleted.

V. MANAGEMENT CONCEPTS BY NATURAL COMMUNITIES & ACTIVITIES

A. Existing And Planned Uses

1. Property Boundaries Establishment And Preservation

Forest boundary lines are maintained where they have been established by State Forest personnel or by a registered surveyor. As rapidly as time and funds permit, boundaries not easily recognized will be more clearly marked. Un-surveyed portions of the Forest and lines in conflict will be properly surveyed and corners set. Fencing will be installed where necessary. Boundary surveying and marking around interior private holdings will receive first priority in this area. Perimeters will be maintained with permanent, harrowed lines for fire control and boundary establishment. Additional survey work is needed for proper boundary establishment in certain areas of the forest.

2. Water and Watershed Resources

Concern over a continuous, high quality source of fresh water requires emphasis on protecting this vital resource. The Division will not support any activities that will negatively affect surface or groundwater quantity or quality on, or adjacent to, the forest. The two major waterways on the forest are the Withlacoochee and Little Withlacoochee Rivers.

Most of the watershed area, which feeds these rivers, is located within the forest boundaries and Green Swamp Basin south of the Richloam Tract. Jumper Creek is fed by a series of natural springs, and by the Jumper Creek canal, which originates in east-central Sumter County. These rivers are, for the most part, unpolluted and are important to wildlife and recreation. There are several ponds located on the forest with management aimed at recreation and wildlife.

Watershed management relating to silvicultural practices will be tailored to comply with the EPA 208 Water Quality Control Guidelines. Specific guidelines vary from site to site and are dependent upon soil texture and slope. These guidelines are outlined in the FDACS Handbook: Silviculture Best Management Practices, 2000. This publication can be found in the WSF reference library and on the Divisions website.

All management activities will, at a minimum, comply with the public lands section of Best Management Practices. A Special Management Zone will be provided along all perennial streams to protect these

waters from excessive sediment, nutrients, and temperature fluctuation. In addition, to the greatest extent possible, areas within a Special Management Zone designated as a Primary Zone will be managed as a no-cut zone. Any timber harvesting within these no-cut zones will be limited to operations that are in association with ecological restoration or natural disaster salvage cuts and will be tightly controlled to protect the watershed. When aesthetic, wildlife, or recreation values are of concern, greater restrictions to timber harvesting may be applied.

Presently, the Jumper Creek Tract is managed for watershed protection and recreation. Recreation activities will be allowed that complement watershed protection.

The Division is currently cooperating with DEP and SWFWMD to hydrologically restore the watershed (sheet flow) in the Baird Unit. Over the course of the next five years, ditch blocks, culverts, and various other water control structures will be installed in order to redirect water into the swamps and Giddon Lake. This redirection of water flow may help alleviate down river flooding by holding water in swamps and isolated depressional marshes and slowing its flow into the river. This hydrological restoration project will be conducted under the supervision of the Division's forest hydrologist.

3. Withlacoochee Seed Orchards

The main seed orchard was established in the early 1960's and currently has 254 acres out of 320 in seed production. The intent of the tree improvement program was to select superior pine trees throughout the range of each species and grow them on state and private lands to produce superior quality seed for nurseries. The Cooperative Forest Genetics Research Program at the University of Florida coordinates this program in partnership with the Division.

To maintain a viable seed-producing orchard the Division has established progeny test plots with seedlings from each clone in the orchards and monitored the growth and insect/disease resistance. From these tests selections for a second-generation orchard could be chosen. The land is available and irrigation is planned.

The current longleaf pine seedling orchard is not from local seed sources, but a progeny test from seed collected all over Florida. Within the last two years the Division has located 25 potentially superior longleaf pines in the central Florida area. The Division is collecting seed from these trees and plans are underway to establish a regional seed orchard.

4. Recreation Management

The primary objective for the outdoor recreation program is to satisfy the need for public outdoor, resource-based recreation opportunities while conserving land, water, and other environmental resources. This objective is being achieved through a variety of planned, outdoor, recreational activities throughout the forest that allow the forest visitor to experience solitude, serenity and self-reliance in a natural setting. A breakdown of recreational facilities by management tract can be found in **Exhibit J.**

The focus of the outdoor recreation program for the next five years will be on the renovation and repair of existing facilities. New recreational opportunities and facilities, which are compatible with the primary goals and responsibilities of the Division, will be considered only after the Division investigates the need and impact. Frequently, recreational opportunities are limited due to staffing, budgeting and resource impacts. Therefore, improvements and additions mentioned in this plan are contingent upon these items.

The Recreation Coordinator will continue to strengthen our relationships with volunteer organizations and increase their role in achieving recreation objectives. Over the course of the next five years we hope to move towards more interpretive work with the public. The following guidelines will be used to help direct recreation management decisions:

1. Competition and pressure on the land resource for the greatest variety of uses is expected to increase. Periodic reviews of proposed and existing sites will be used to set priorities for future development and/or reduction in facilities. Decisions will also be based on trends in visitor use, resource impacts, cost/benefit comparisons and budget constraints.

2. Rules and regulations necessary to preserve the quality of the environment and benefit public enjoyment will be enforced. Access to law enforcement will often be a limiting factor. Proposed changes to the Florida Administrative Code 5I-4 (the enforcement code for recreation rules) have been recommended that will allow for more effective enforcement. Upcoming Fish and Wildlife Commission (FWC) rule evaluations for wildlife management areas are planned to eliminate unenforceable trail and road use provisions and remove FWC provisions that conflict with established recreational trail and road use. The Division will work with the Withlacoochee Trails Council to establish a program to educate users in proper trail etiquette and forest rules.

3. User fees have been established and/or increased at improved trailheads, day use areas and campgrounds, to help offset the cost of development, repair, administration, and protection of these areas. The Division will work with the Withlacoochee Trails Council to evaluate opportunities to establish future user fees. Withlacoochee State Forest (WSF) personnel will discuss the feasibility of conducting a user fee study with the University of Florida.

4. Sanitation and water facilities will be installed that satisfy state and local code requirements.

5. Facilities that control relatively concentrated, high intensity, high impact recreational activities will be located, designed, maintained and improved to limit motorized encroachment into the forest environment and encourage disbursed non-motorized activities and trails. These facilities include campgrounds, day use areas, trailheads and specified motorized off-road vehicle facilities.

Facility design will provide adequate capacity during normal peak loads. Supplemental facilities (eg. portalets) will be required of users during special events where loads will exceed the normal carrying capacity. State Forest Use Permits will be issued and required for special events, group activities, etc., and will contain provisions to insure proper sanitary conditions, site cleanliness, protection of forest resources, and the safety of participants. Facility maintenance at campgrounds, day use areas and trailheads will emphasize site and roadway improvements that reduce existing erosion problems. Emphasis will be placed on upgrading select facilities to be handicapped accessible.

6. Access Roads - Roadway design and maintenance will strive to ensure daily, all-weather accessibility to campgrounds, day use areas, hunt camps and trailheads from established federal, state and local highways and roads. Once these destination points are reached, adequate parking will discourage

further motorized access into the natural environment and encourage non-motorized, multi-modal trail use on single and multi-use trail systems.

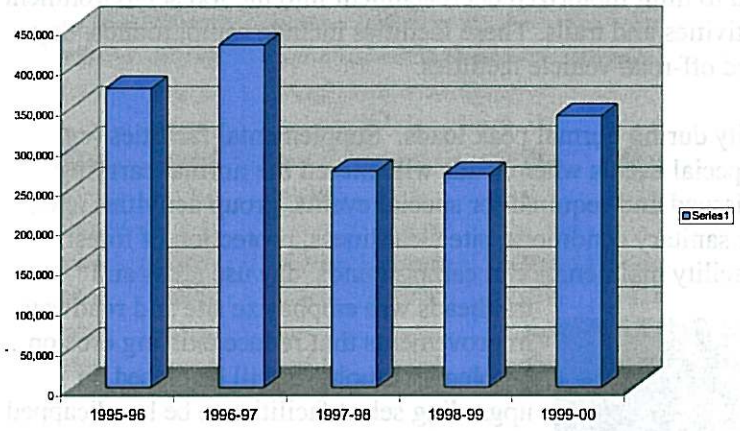
7. Primitive camp zones, trailheads and day use areas will continue to be available and regulated to cause the least impact to the sites. Minimum sanitary requirements will be provided in accordance with all applicable health codes. Certain primitive areas will be opened on a seasonal basis only.

8. Monitoring - All recreation activities on the WSF will be periodically evaluated for impact on the native environment. Recreation areas, such as trails, day use areas, hunt camps and campgrounds will be monitored for resource degradation. If significant negative impacts are found, the sites and the activities responsible for the degradation will be evaluated and modified, moved, or eliminated as necessary to maintain the integrity of the natural resource.

Monitoring of trail use will include issuing Forest Use Permits to all groups visiting the forest, compliance with Special Event Directives for new, annual or repetitive special events, and post-event corrective measures if unacceptable resource degradation occurs. In addition, recreation section staff will continue to monitor and evaluate trail user conflicts where co-use is not compatible. Monitoring of commercial vendors will be accomplished by issuing commercial vendor permits for canoes and kayaks, horses and bicycles. Commercial off-road motorcycle and ATV vendors (at present all commercial vendors are off-site) will purchase an annual Croom Motorcycle Area decal. Any concessionaires (on-site) will be monitored by written agreement provisions in addition to decal purchase. Compliance checks will depend upon availability of Office of Agricultural Law Enforcement (OALE) and recreation personnel.

All recreation considerations and decisions will be responsive to the needs of the forest's ecological systems. Following guidelines currently available for trail construction and maintenance, and complying with the requirements of the Division's State Forest Handbook, Chapter 6.3.1: *Recreation Trail Development*, forest standards will be adopted during the next five year period for construction and maintenance of nature, hiking, off-road bicycle, horse and enduro trails. These standards will be used in the monitoring and evaluation of resource impacts from these activities. Monitoring will look at depth of trail, erosion occurring or general resource degradation. Rehab guidelines that may be implemented will include trail closures, relocation or rehabilitation of impacts. We will establish trail buffer standards per site, where appropriate, which will be monitored before, during and after silvicultural treatments to ensure safe visitor access and promote the user's understanding of multi-aged silvicultural management and preservation of representative wildlife habitat.

Figure 4: Annual Number of Visitors



9. Visitor Information/Education – Visitor education and access to recreational facilities will be managed through the use of the Recreation/Visitors Center (RVC), our forest web site, facility and trail maps and brochures, educational programs, trailhead kiosks, media events and interpretative trails and facilities. Park Rangers will continue as a primary recreational resource in the field. Plans are underway to provide new brochures utilizing Geographic Information System (GIS) for all trails to support visitor education and safety, and to deter abuse and illegal use of trails and the surrounding forest. Proper trail use will also

be supported by proper signage at trailheads, trail crossings with other trails and roads, and confidence markers. Trails that are listed or proposed as part of the *Trailwalker* program, Florida National Scenic Trail (FNST) certification, or other statewide or national recognition, will be given priority consideration for improvements.

A. Activities

The Withlacoochee State Forest is suitable for a great number of outdoor recreation activities. These include opportunities for camping, nature walks, picnicking, hiking, horseback riding, off-road bicycling, canoeing, kayaking, fishing, boating, hunting, observing birds and other wildlife, educational activities, caving, and off-road motorcycle and ATV use. A review of major planned activities is listed below by tract.

Several statewide Division of Forestry recreational programs designed for various user groups include active program sites at Withlacoochee. These programs are the *Trailwalker* for hikers, *Watchable Wildlife* for viewing animals in their natural habitat, and *Trailtrotters* for equestrians.

Of the 30 Trailwalker trails, eight are located at Withlacoochee: two on the Citrus Tract; one each on the Headquarters, Richloam and Two Mile Prairie Tracts; and three on the Croom Tract. Watchable Wildlife locations include McKethan Lake, Colonel Robins and Hog Island Day Use Areas, and Johnson Pond and Revels Pond. Trailtrotter Trails are slated to include the Bear Hammock Horse Trail at Two Mile Prairie and the multi-use trails at Little River Ranch.

Citrus Tract

Camping - Camping is available at three developed campgrounds, three primitive camp zones along the hiking trail, and one hunt camp during the archery, gun, and small game seasons. **(Figure 5)**

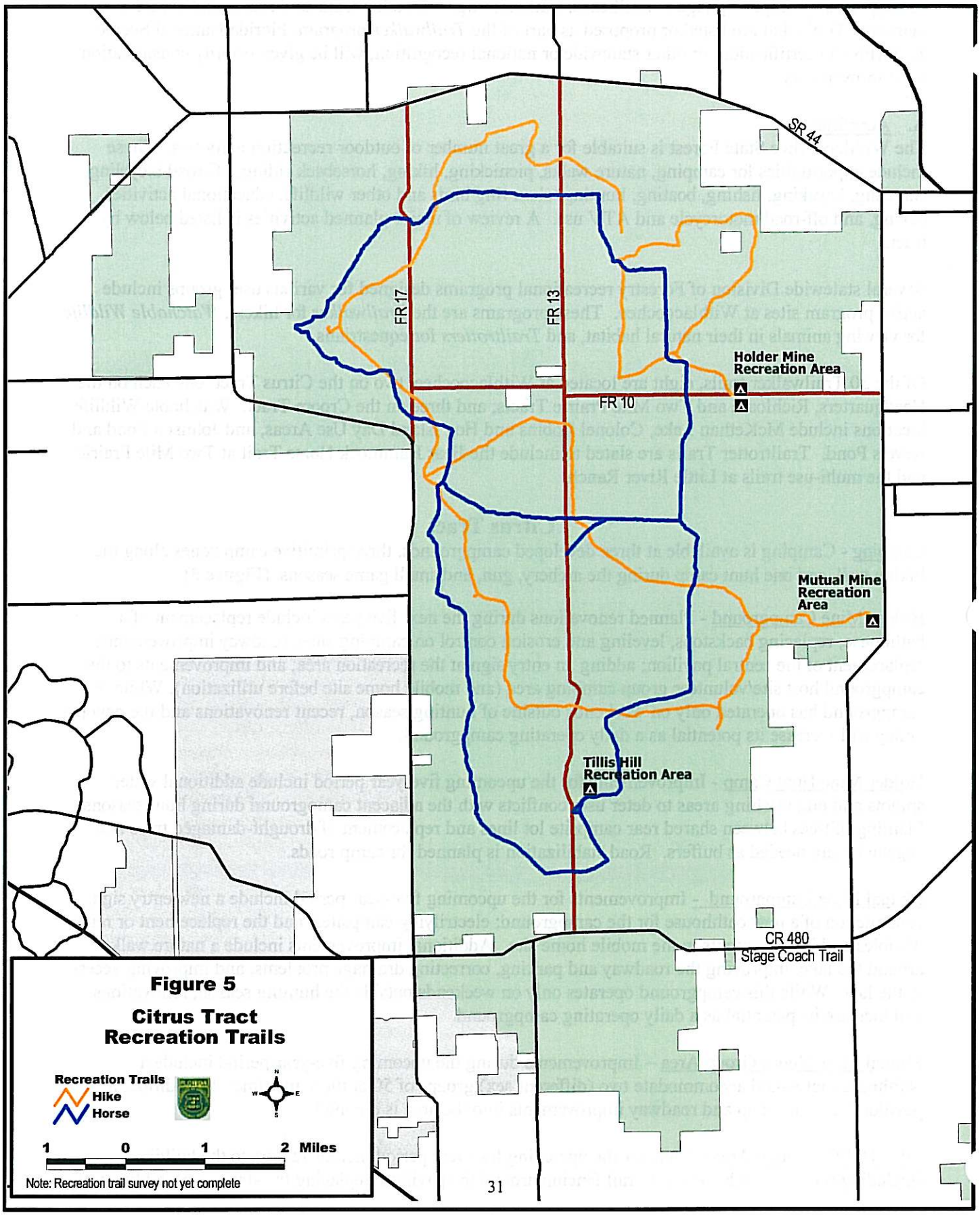
Holder Mine Campground - Planned renovations during the next five years include replacement of a bathhouse; replacing backstops, leveling and erosion control on camping sites; roadway improvements; replacement of the central pavilion; adding an entry sign at the recreation area; and improvements to the campground host site/volunteer group camping area (and mobile home site before utilization). While this campground has operated only on weekends outside of hunting season, recent renovations and the new pet policy will increase its potential as a daily operating campground.

Holder Mine Hunt Camp - Improvements for the upcoming five-year period include additional water spigots and dog washing areas to deter user conflicts with the adjacent campground during hunt seasons. Planting of trees between shared rear campsite lot lines and replacement of drought-damaged trees and vegetation are needed as buffers. Road stabilization is planned for camp roads.

Mutual Mine Campground - Improvements for the upcoming five-year period include a new entry sign, construction of a new bathhouse for the campground; electrifying campsites; and the replacement or repair of tables and improvements to the mobile home site. Additional improvements include a nature walk around the lake, improving the roadway and parking, correcting drainage problems, and improving access to the lake. While this campground operates only on weekends outside the hunting season, renovations will increase its potential as a daily operating campground.

Mutual Mine Youth Group Area – Improvements during the upcoming five-year period include a bathhouse that would accommodate two (different sex) groups of 50 at the same time. In addition, a pavilion for each group and roadway improvements into the area is planned.

Tillis Hill Recreation Area - Plans for the upcoming five-year period include repairs to the buildings (including roofing), backstops, split rail fencing around the pavilion, replacing the stable roof, addition of


SR 44
FR 17
FR 13
FR 10
Holder Mine
Recreation Area
Mutual Mine
Recreation
Area
Tillis Hill
Recreation Area
CR 480
Stage Coach Trail
Figure 5
Citrus Tract
Recreation Trails
Recreation Trails
Hike
Horse
1 0 1 2 Miles
Note: Recreation trail survey not yet complete

native trees for shade and site buffering, campground road and site stabilization, an additional entry sign at the base of the entry road; the addition of another horse stable with parking; and standing stalls.

Citrus Hiking Trails - The Citrus, Croom and Richloam hiking trails are maintained through the volunteer work of the Florida Trail Association (FTA). Trail improvements planned for the upcoming five-year period include additional signage and trailhead improvements. The A and C Loops are featured as part of the *Trailwalker* program. The eastern portion of the hiking trails may be included as part of the western loop of the Florida National Scenic Trail. **(Figure 6)**

Citrus Horse Trails - The equestrian trails have been in existence for many years and are designed with both one and two-day loops. There is no single volunteer group responsible for maintenance. Individual Forest volunteers, however, provide substantial assistance. New brochures with GIS-accurate mapping will assist with visitor information and safety and provide trail connectivity to the community, as well as rule enforcement to keep horses on established trails.

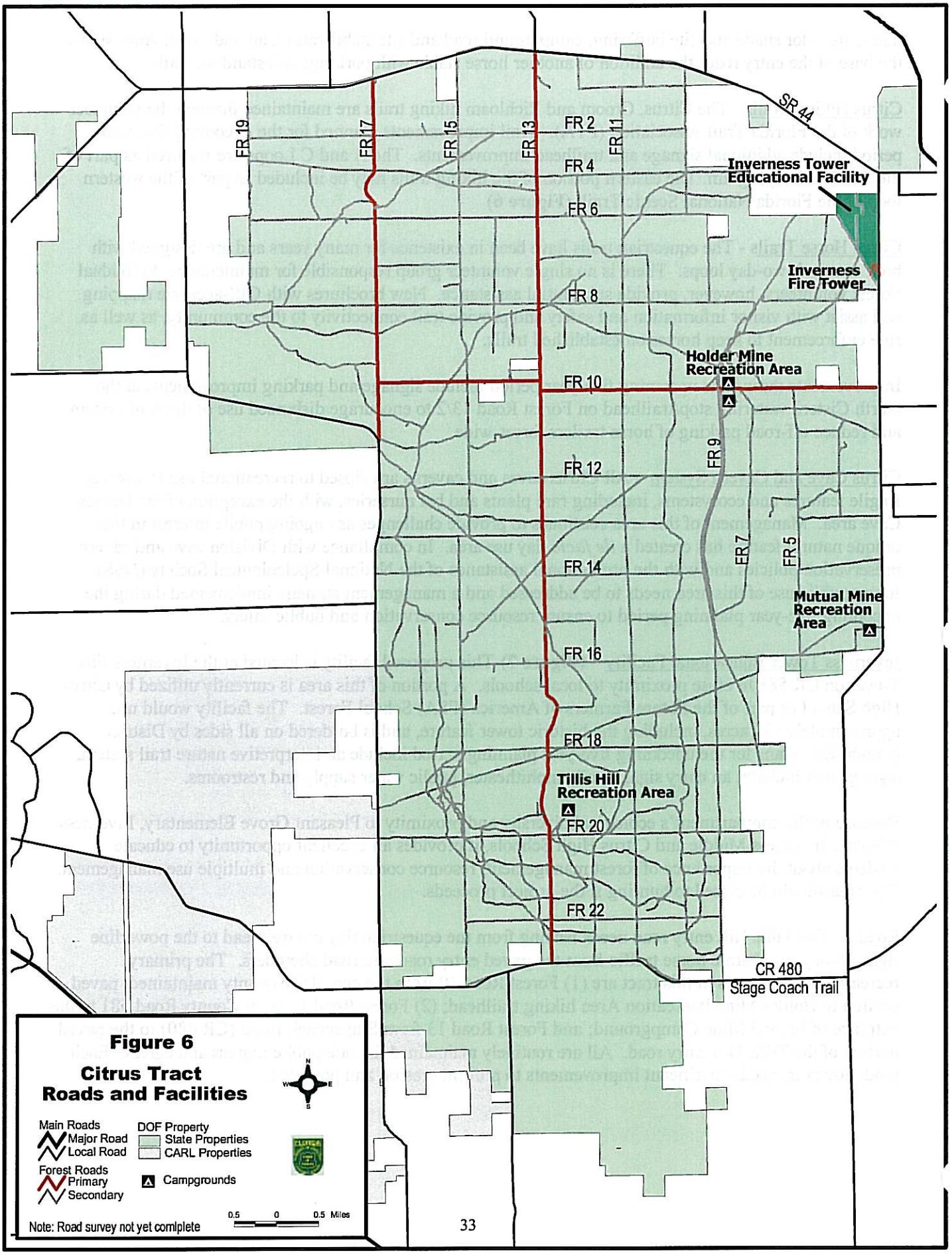
Improvements during the upcoming five-year period include signage and parking improvements at the North Cistern watering stop/trailhead on Forest Road 13/2 to encourage disbursed use of the trail system and reduce off-road parking of horse trailers forest-wide.

Citrus Cave and Cavern System – All Citrus caves and caverns are closed to recreational use to protect fragile features and ecosystems, including rare plants and bat nurseries, with the exception of the Dames Cave area. Management of this area continues to provide challenges as ongoing public interest in this unique natural feature has created a *de facto* day use area. In compliance with Division cave and cavern preservation policies and with the professional assistance of the National Speleological Society (NSS), future public use of this area needs to be addressed and a management strategy implemented during the upcoming five-year planning period to ensure resource conservation and public safety.

Inverness Tower Educational Facility – **(Figure 7)**-This proposed facility is located at the Inverness Fire Tower on CR 581 in close proximity to local schools. A portion of this area is currently utilized by Citrus High School as part of the Future Farmers of America (FFA) School Forest. The facility would use approximately 130 acres, including the historic tower feature, and is bordered on all sides by District boundaries. Plans for the upcoming five-year planning period include an interpretive nature trail system, signage that includes an entry sign, small amphitheater, public water supply and restrooms.

Because of the compartment's ecological diversity and proximity to Pleasant Grove Elementary, Inverness Primary, Inverness Middle and Citrus High Schools, it provides an excellent opportunity to educate students about the importance of forest management, resource conservation and multiple use management. The area should be closed to hunting if the project proceeds.

Roads – The Tillis Hill entry road needs fencing from the equestrian day use trailhead to the powerline right-of-way to separate horse traffic from the paved entry road and road shoulders. The primary recreation access roads in this tract are (1) Forest Road 10 from the end of the county maintained, paved portion to Holder Mine Recreation Area hiking trailhead; (2) Forest Road 16 from County Road 581 to the entrance of Mutual Mine Campground; and Forest Road 13 from Stagecoach Road (CR 480) to the paved portion of the Tillis Hill entry road. All are routinely maintained for safe public ingress and egress. Each road, however, needs significant improvements to prevent erosion and potholes.


SR 44
FR 19
FR17
FR 15
FR 13
FR 2
FR 11
FR 4
FR 6
FR 8
FR 10
FR 12
FR 14
FR 16
FR 18
FR 20
FR 22
FR 9
FR 7
FR 5
Inverness Tower Educational Facility
Inverness Fire Tower
Holder Mine Recreation Area
Mutual Mine Recreation Area
Tillis Hill Recreation Area
CR 480
Stage Coach Trail
Figure 6
Citrus Tract
Roads and Facilities
Main Roads
Major Road
Local Road
Forest Roads
Primary
Secondary
DOF Property
State Properties
CARL Properties
Campgrounds
Note: Road survey not yet complete
0.5 0 0.5 Miles

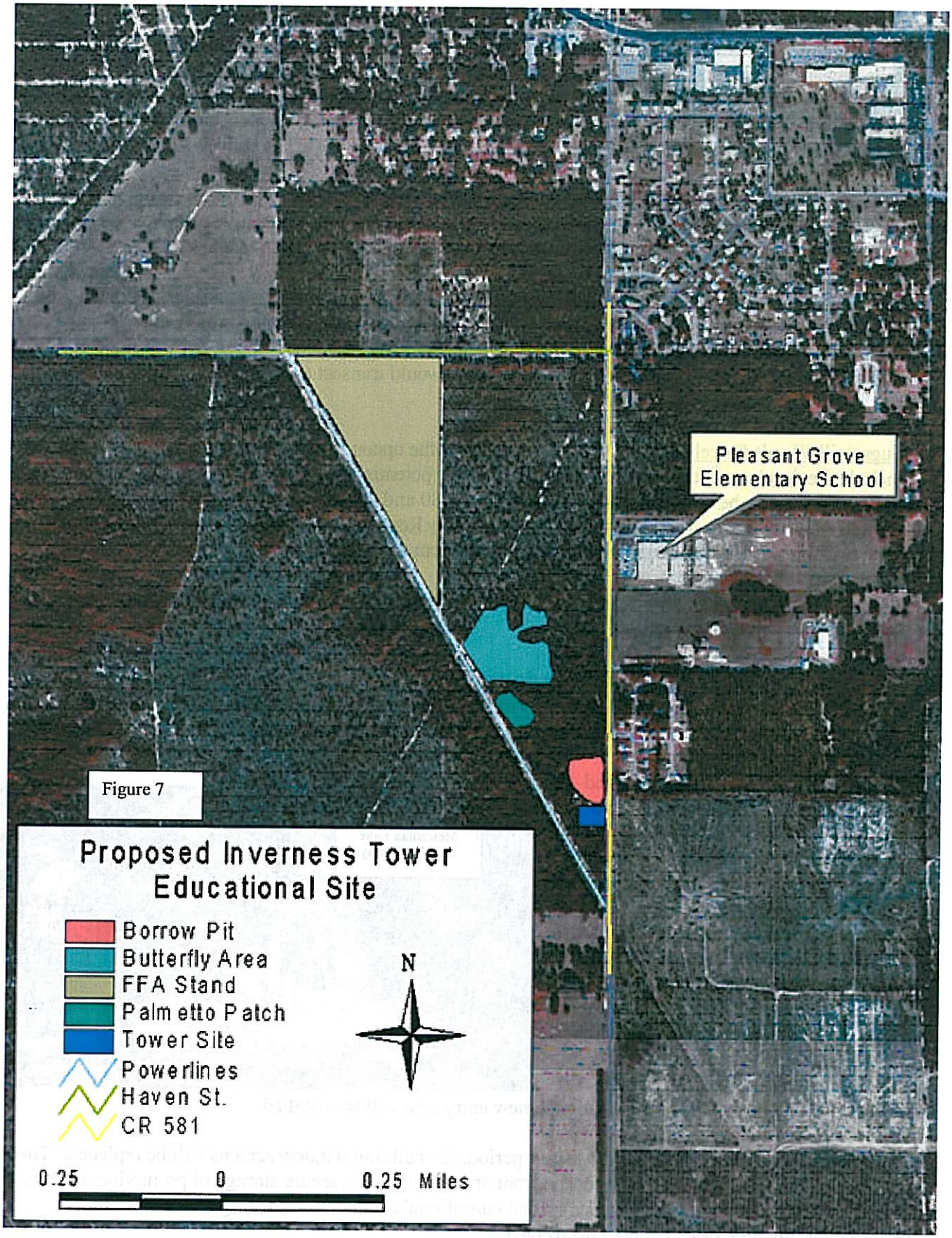

Pleasant Grove
Elementary School
Proposed Inverness Tower
Educational Site
Borrow Pit
Butterfly Area
FFA Stand
Palmetto Patch
Tower Site
Powerlines
Haven St.
CR 581
N
0.25
0
0.25 Miles

Figure 7

Annutteliga Hammock Unit

This newly acquired tract is comprised of three isolated parcels, which are referred to as Lecanto Sandhills, Sugar Mill Woods, and World Woods, each with unique resource-based recreation opportunities. Annutteliga Hammock lies in close proximity with the existing Citrus and Homosassa Tracts, therefore, recreation planning will focus on integrating new recreation opportunities with established recreation programs.

Hiking and equestrian trails can be extended from the Citrus Tract. New trails will utilize existing jeep trails where possible. Other suitable activities may include hunting, fishing, primitive camping, wildlife and bird watching, and educational activities. **(Figure 8 & 9)**

World Woods Parcel (Figure 8) Improvements for the upcoming five-year planning period will include the development of a one-mile loop road off of County Road 491 for vehicle access to a trailhead/parking area. From this point users will access a four-mile loop hiking trail. Included in this trail will be the development of a boardwalk that would transect a wetland area in close proximity to US 98.

Sugarmill Woods Parcel (Figure 9) Improvements for the upcoming five-year planning period will include the development of trailhead/parking areas for potential multi-use trail system. One trailhead and trail loop may be located south of County Road 480 and the other trailhead and trail loop may be located west of County Road 491 and North of County Road 480. An upgrade to an existing four-mile two-trail road is planned to help facilitate management of this tract.

Lecanto Sandhills is a newly acquired parcel and as money and staffing allows additional recreational opportunities will be explored.

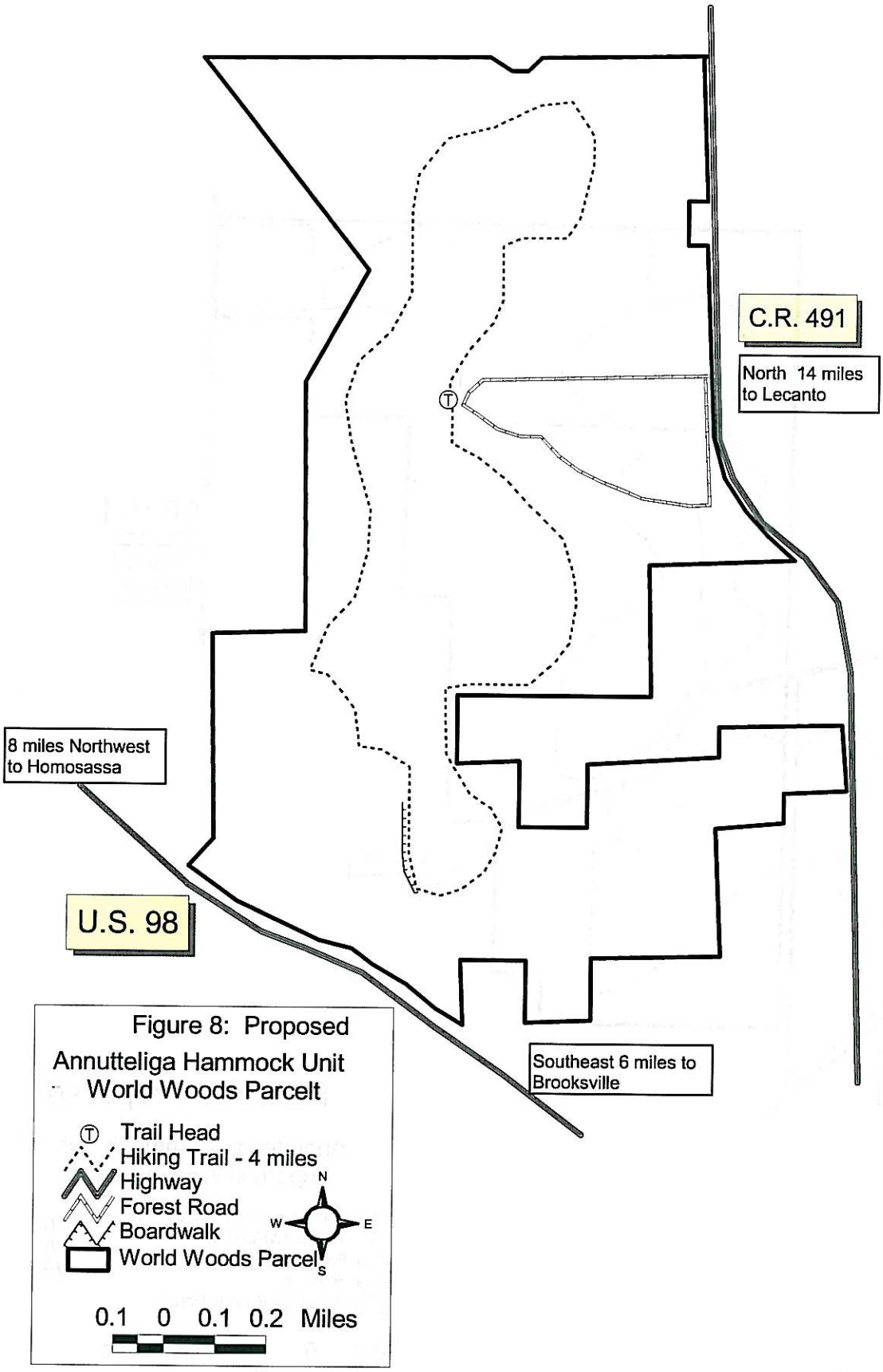
Headquarters Tract

This tract includes two day use areas, the WSF Visitor Center, the District administration complex and The Center for Wildfire & Forest Resource Management Training. **(Figure 10)**

McKethan Lake Day Use Area - Planned improvements during the upcoming five-year period include upgrading the playground facilities, nature trail, and signs throughout the area. The nature trail is listed on the *Trailwalker* program. Other planned improvements include bathhouse renovation, placing a new entry sign and re-paving the day use area road.

Colonel Robins Day Use Area - During the upcoming five-year period, the roadway into the picnic area is prone to deep, sandy conditions and will be stabilized. In addition, a new entry sign will be installed.

WSF Visitor Center –During the next five-year period, the building window screens will be replaced. The garage/annex needs repairs and doors for the front and rear to allow secure storage of promotional items, signs, and documents and to allow use for special educational events. The parking area has been improved with limerock base, but now needs paving.


C.R. 491
North 14 miles to Lecanto
8 miles Northwest to Homosassa
U.S. 98
Southeast 6 miles to Brooksville
Figure 8: Proposed
Annutteliga Hammock Unit
World Woods Parcelt
Trail Head
Hiking Trail - 4 miles
Highway
Forest Road
Boardwalk
World Woods Parcel
N
W
E
S
0.1 0 0.1 0.2 Miles

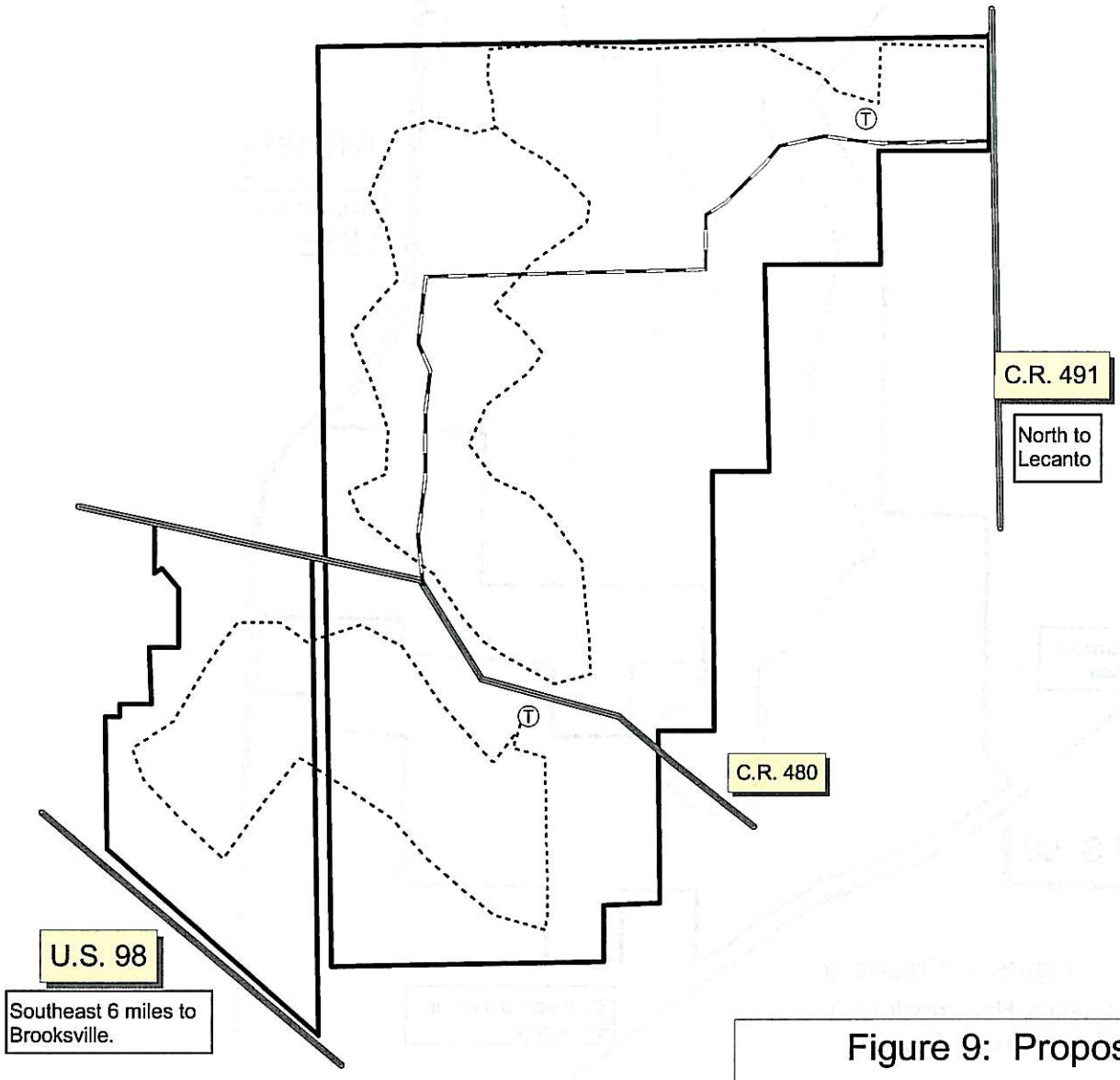


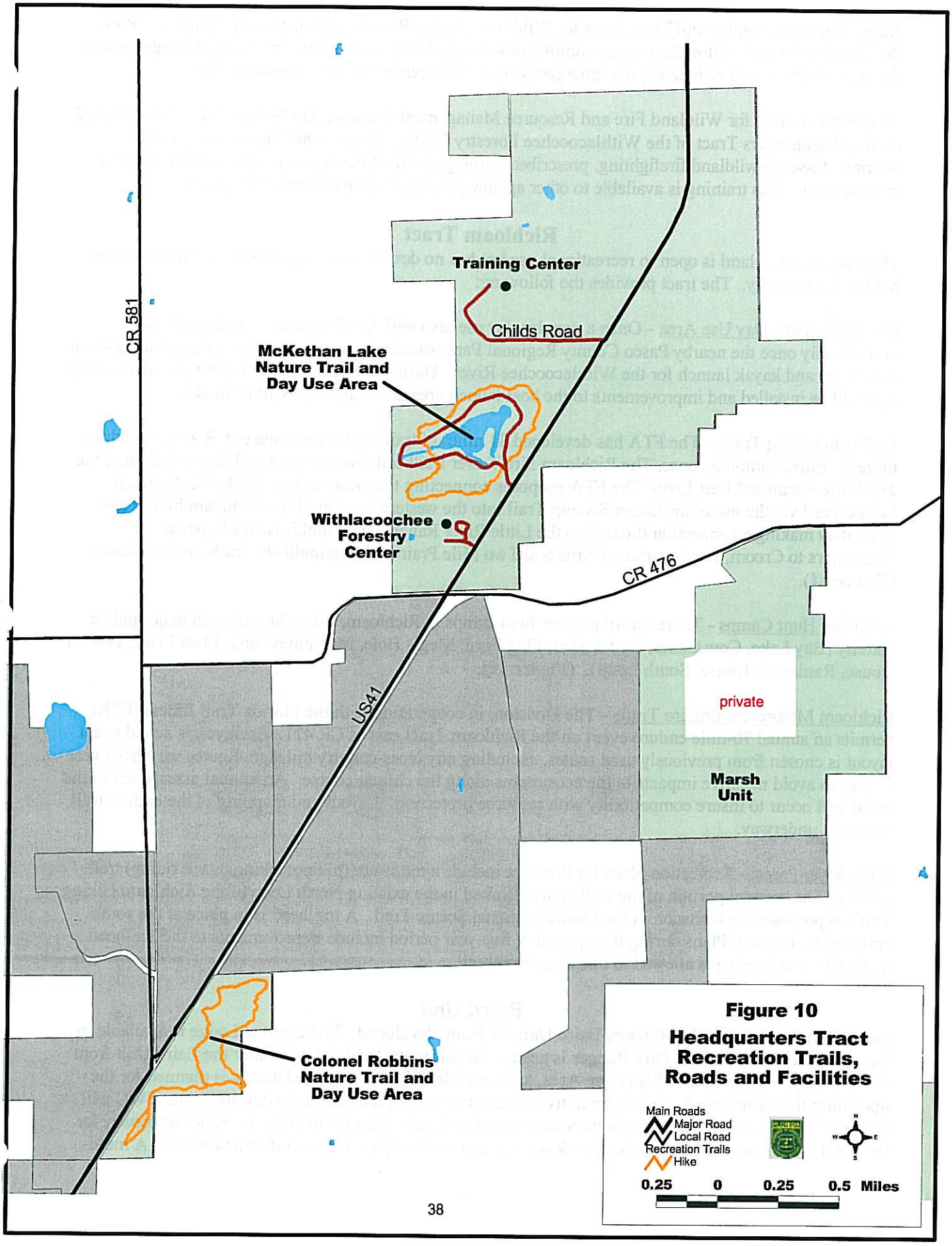
Figure 9: Proposed

Annutteliga Hammock Unit
Sugarmill Woods Parcel

Multi-use Trails - 15.5 miles
Trailhead/Parking
Forest Road
Highway
Sugarmill Woods Parcel

N

0.3 0 0.3 0.6 Miles


Training Center
Childs Road
McKethan Lake
Nature Trail and
Day Use Area
Withlacoochee
Forestry
Center
CR 581
CR 476
US41
private
Marsh
Unit
Colonel Robbins
Nature Trail and
Day Use Area
Figure 10
Headquarters Tract
Recreation Trails,
Roads and Facilities
Main Roads
Major Road
Local Road
Recreation Trails
Hike
0.25 0 0.25 0.5 Miles

Administration Complex and The Center for Wildfire & Forest Resource Management Training – With the exception of the Visitor Center, the administration complex is used for the day to day management of the state forest as well as housing our emergency operations center for the five county area.

The Florida Center for Wildland Fire and Resource Management Training- (FCWF&RMT) is also located on the Headquarters Tract of the Withlacoochee Forestry Center. This is a full time training center, offering classes in wildland firefighting, prescribed burning, incident management, and natural resource management. This training is available to other agency personnel and members of the public.

Richloam Tract

This large tract of land is open to recreational use but has no developed campgrounds due to flat, water-holding topography. The tract provides the following:

Lacoochee Park Day Use Area - Once a popular day use area with local residents, use diminished dramatically once the nearby Pasco County Regional Park was developed. This area continues to function as a canoe and kayak launch for the Withlacoochee River. During the upcoming five-year period, an entry sign will be installed and improvements to the boat launch area and entry road will be made.

Richloam Hiking Trails - The FTA has developed 31 miles of trail on the west side of CR 471, including three primitive camping zones. The Richloam Fire Tower trailhead gives access to all loops, including the *Trailwalker* featured East Loop. The FTA proposes connecting the western loop of Florida National Scenic Trail via the use of the Green Swamp Trail into the western portion of the Richloam hiking trail, ultimately making a connection through to the Little River Ranch parcel multi-use trail system. Connectors to Croom, Headquarters, Citrus and Two Mile Prairie hiking/multi-use trails are envisioned **(Figure 11)**.

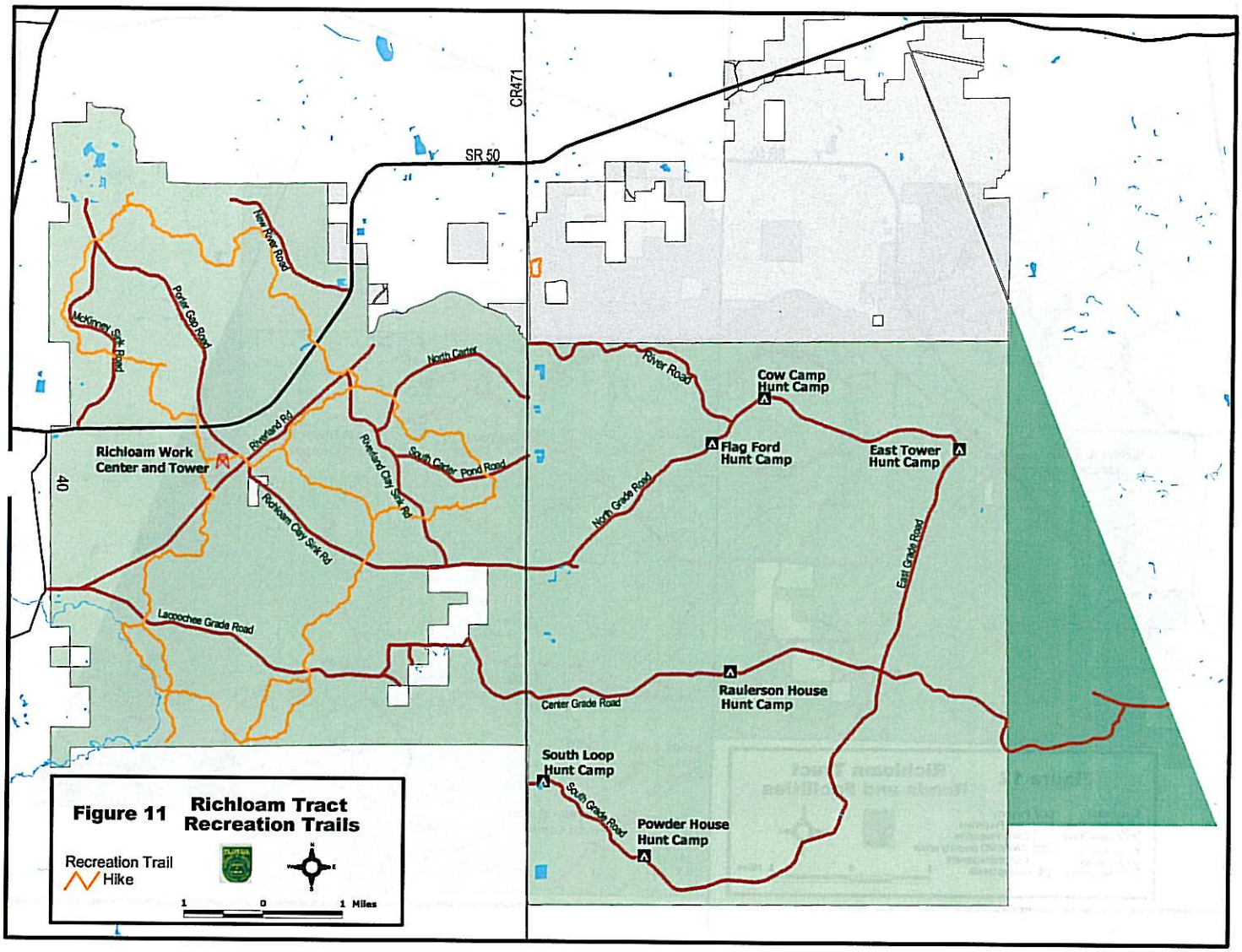
Richloam Hunt Camps - There are 10 popular hunt camps in Richloam, where hunting is a major public activity (Bay Lake, Cow Camp, East Tower, Flag Ford, Meg's Hole, McKinney Sink, Pless Place, Powder House, Raulerson House, South Loop). **(Figure 12)**.

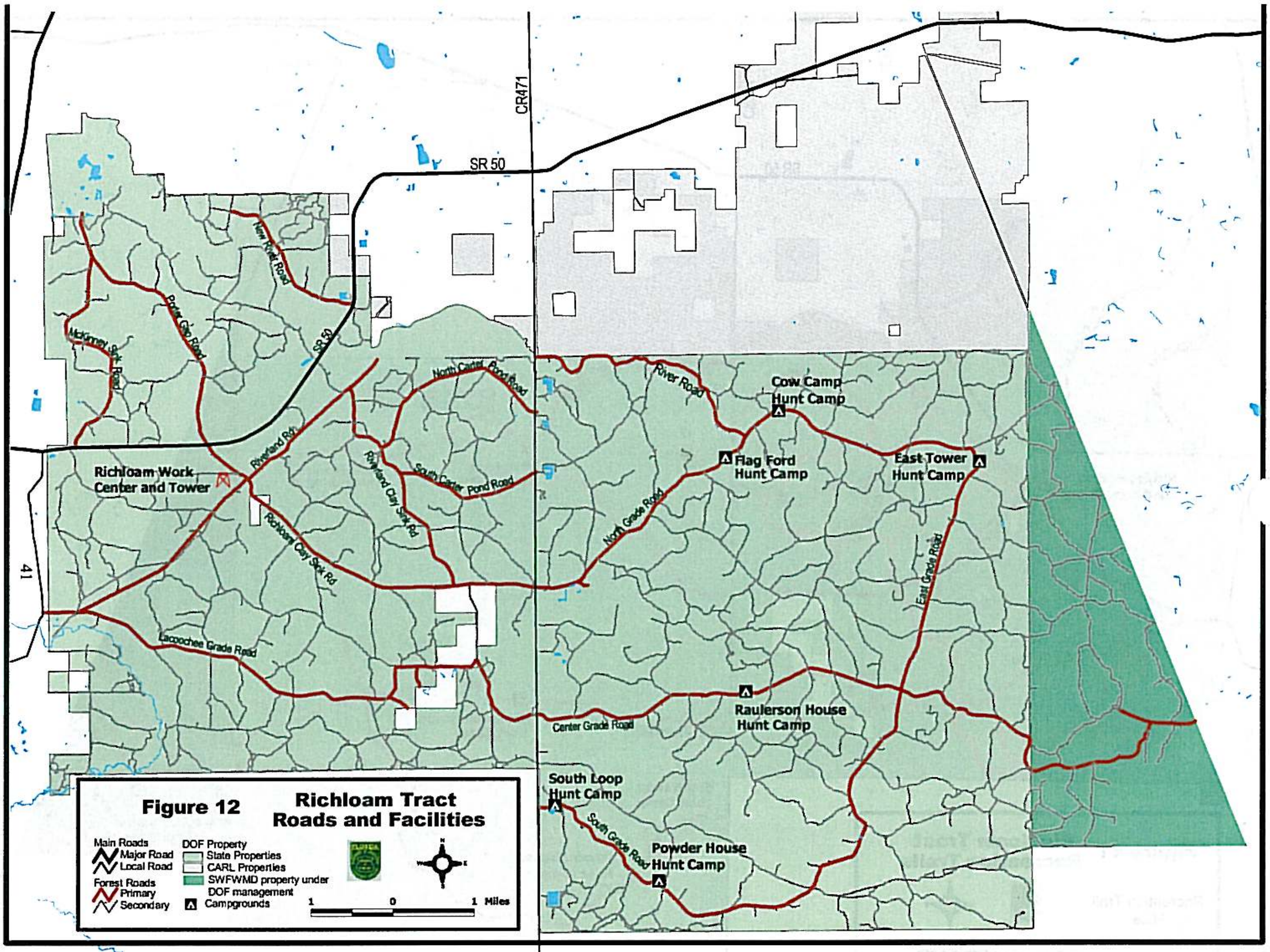
Richloam Motorcycle Enduro Trails - The Division, in cooperation with the Florida Trail Riders (FTR), permits an annual 70-mile enduro event on the Richloam Tract east of CR 471. Each year's actual event layout is chosen from previously used routes, excluding any cross-country mileage. Routes vary from year to year to avoid negative impacts to the ecosystems along the chosen course. An annual assessment of the event will occur to insure compatibility with resource protection. Layout and mapping of the enduro trail system is underway.

Little River Parcel - Recreation plans for this area include a multi-use (hiking, biking, horse riding) trail system. The western portion of the trail system, linked to the existing North Loop of the Richloam Hiking Trails is proposed for inclusion in the Florida National Scenic Trail. A trailhead is in place at the south entrance to the tract. Plans during the upcoming five-year period include improvements to the trailhead and trails. No hunting is allowed in this area at present.

Baird Unit

Recreation plans for the 11,500-acre Baird Unit are being developed. The Cypress Lodge is available by fee for day use meetings. A Park Ranger is needed for this unit. Vehicles may enter the Baird Unit from CR 471 only. At Revels Pond Day Use Area, a fishing pier with handicapped access is planned for the upcoming five-year period. An interpretative nature trail around the pond is in development. FWC will be contacted to assist in cleaning the man-made pond and restocking for fishing. Facilities underway for the CR 471 entrance include a game check station, and a visitor parking and information area. A multi-


CR471
SR 50
New River Road
Porter Gap Road
McKinney Sink Road
North Canal
River Road
Cow Camp
Hunt Camp
Richloam Work
Center and Tower
Riverland Rd
Riverland Canal Sink Rd
South Center Pond Road
Flag Ford
Hunt Camp
East Tower
Hunt Camp
North Grade Road
East Grade Road
40
Richloam Canal Sink Rd
Lacoochee Grade Road
Center Grade Road
Raulerson House
Hunt Camp
South Loop
Hunt Camp
South Grade Road
Powder House
Hunt Camp
Figure 11
Richloam Tract
Recreation Trails
Recreation Trail
Hike
1 0 1 Miles



SR 50
CR471
41
Richloam Work Center and Tower
Cow Camp Hunt Camp
Flag Ford Hunt Camp
East Tower Hunt Camp
Raulerson House Hunt Camp
South Loop Hunt Camp
Powder House Hunt Camp
River Road
North Carter Pond Road
South Carter Pond Road
Riverland Rd
Riverland Clay Sink Rd
Richloam Clay Sink Rd
North Grade Road
East Grade Road
Lacoochee Grade Road
Center Grade Road
South Grade Road
McKinney Sink Road
New River Road
Porter Gap Road
SR 50
Figure 12
Richloam Tract
Roads and Facilities
Main Roads
Major Road
Local Road
Forest Roads
Primary
Secondary
DOF Property
State Properties
CARL Properties
SWFWMD property under DOF management
Campgrounds
1 0 1 Miles

use trail system is currently under development throughout the unit. Hunts are managed by FWC with approval of the Division. Hunting dogs are prohibited as a condition of the purchase.

Croom Tract

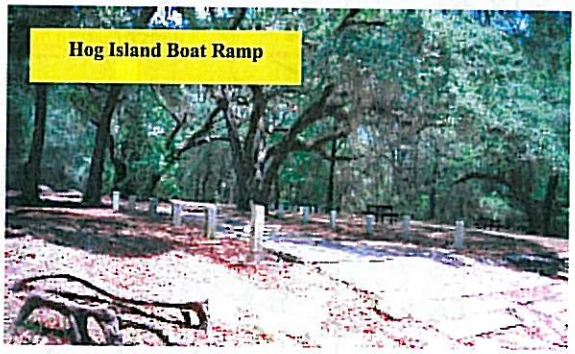
Camping - Camping is available at six campgrounds, two hunt camps, two primitive camp zones, and two (one primitive, one fee) canoe camps. This tract receives the highest number of visitors of all forest areas. Located close to the Ocala, Tampa Bay and Orlando metropolitan areas, with Interstate 75, and SR 50 as connectors, this tract is positioned within an hour drive to over 4,135,329 million people. **(Figure 13)**

A. Hog Island Recreation Area

Improvements during the upcoming five-year period include renovation to the housing site and maintenance area. In addition an entry sign will be installed and the area designated as a *Watchable Wildlife* location.

Hog Island Campground - Over the next five years all campsites should be electrified, picnic tables should be replaced and the bathhouse/septic system should be renovated. The interior roads need improvements and campsites need leveling.

Hog Island Day Use Area –During the upcoming five-year period, trail improvements are planned. The boat ramp no longer reaches the water channel and will be replaced. During drought periods, the channel from the canoe camp to the main river becomes dry or too shallow to launch canoes/kayaks and small boats.



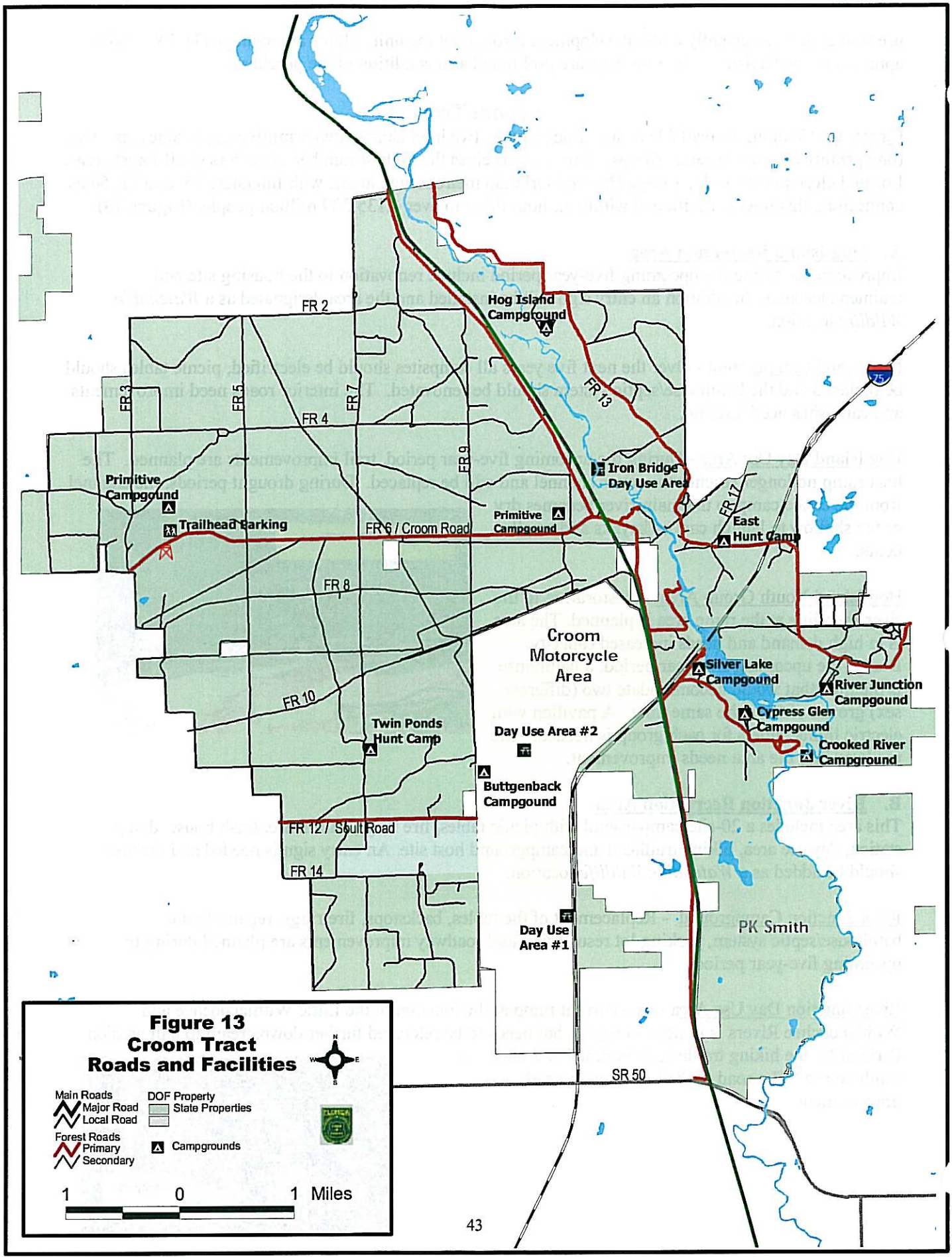
Hog Island Youth Group Area - Restoration to the river shoreline at the ramp area is planned. The area is in high demand and needs increased capacity. During the upcoming five-year period, a bathhouse is planned that would accommodate two (different sex) groups of 50 at the same time. A pavilion with electric lights/outlets for each group is needed. The roadway into the area needs improvement.

B. River Junction Recreation Area

This area includes a 20-site campground with picnic tables, fire rings, bathhouse, trash house, dump station, day use area, hiking trailhead and campground host site. An entry sign is needed and the area should be added as a *Watchable Wildlife* location.

River Junction Campground - Replacement of the tables, backstops, fire rings, repairs to the bathhouse/septic system, parking lot resurfacing and roadway improvements are planned during the upcoming five-year period.

River Junction Day Use Area - The current ramp at the junction of the Little Withlacoochee and Withlacoochee Rivers is in need of repair, but needs to be relocated further downstream to halt erosion. Parking for the hiking trailhead is minimal and often too sandy to use. The road to the boat launch needs improvement.


FR 2
FR 3
FR 5
FR 7
FR 4
FR 9
FR 13
FR 17
FR 8
FR 10
FR 12 / Soult Road
FR 14
FR 6 / Croom Road
Hog Island Campground
Iron Bridge Day Use Area
Primitive Campgound
Trailhead Parking
Primitive Campgound
East Hunt Camp
Croom Motorcycle Area
Silver Lake Campgound
River Junction Campgound
Cypress Glen Campgound
Crooked River Campgound
Twin Ponds Hunt Camp
Day Use Area #2
Buttgenback Campgound
Day Use Area #1
PK Smith
SR 50
75
Figure 13
Croom Tract
Roads and Facilities
Main Roads
Major Road
Local Road
Forest Roads
Primary
Secondary
DOF Property
State Properties
Campgrounds
1 0 1 Miles

C. Silver Lake Recreation Complex (SLRC)

This is a major, heavily used recreation area, comprised of three separate campgrounds totaling 92 sites, dump station, and a day use area with boat launch and hiking trailhead.

During the next five-year period, the entrance and campground roads and day use parking area will be upgraded and would benefit from paving. Addition of a fee at the day use area is planned once improvements are implemented. The addition of control gates at the main entrance to the complex and campgrounds is planned. Park Ranger house renovations are also planned.

Silver Lake Campground – During the upcoming five-year period, the storage shed will be relocated and expanded. Also, an additional campground host site for a campground gate attendant is planned. In conjunction with improvements to the area, the campground will be renamed the "Lake Campground" to avoid confusing duplication of names between the complex and the campground.

Cypress Glen Campground – During the upcoming five-year period, sites need to be upgraded with electricity and the camp host site improved. Additional parking is needed to accommodate large groups and special events. Also needed is an additional trash house.

Crooked River Campground – During the upcoming five-year period, a campground host site is planned. Access points to the Withlacoochee River need a streamside stabilization plan developed in order to control erosion.

Silver Lake Group Camping – This area was used in previous years as a Girl Scout camping area with treehouses. At present, the area is available to volunteer groups at no charge (camping on the ground only) while performing trail maintenance. Plans are needed to provide a volunteer group camp zone and camping space for four groups at a time, with centrally located bathhouse.

Silver Lake Day Use Area – Sanitary facilities, improved parking, picnic tables, grills, signs, boat launch replacement and a fishing pier are needed. A multi-use path is needed to connect day use and camping facilities to the Withlacoochee Trail State Park and to the PK Ranch portion of the Silver Lake Recreation Complex. This area needs to be added as a *Watchable Wildlife* location. A PK Smith/Silver Lake Recreational Complex Plan is under development.

PK Ranch Parcel –**(Figure 14)**-Recreational activities planned for this area during the upcoming five-year period include a multi-use and interpretive trail system connecting to the Silver Lake Recreation Complex and the Withlacoochee Trail State Park. A proposed pedestrian or bicycle/pedestrian bridge across the Withlacoochee River to Hernando County's Cypress Lakes Preserve is planned for the future.

Also under consideration as part of the SLRC master plan underway and proposed for implementation during the upcoming five-year period are a cracker cattle pioneer heritage area (including pasture), an arboretum, restoration of the hunting lodge and guest house, and development of a horse camping area for Withlacoochee State Trail and Croom horse trail riders. This area will be added as a *Watchable Wildlife* location.

Additional agricultural showcase facilities are under consideration that may include a forest education center, historic agricultural museum/living history element, and agricultural exhibits that educate the public to best agricultural production and environmental practices.

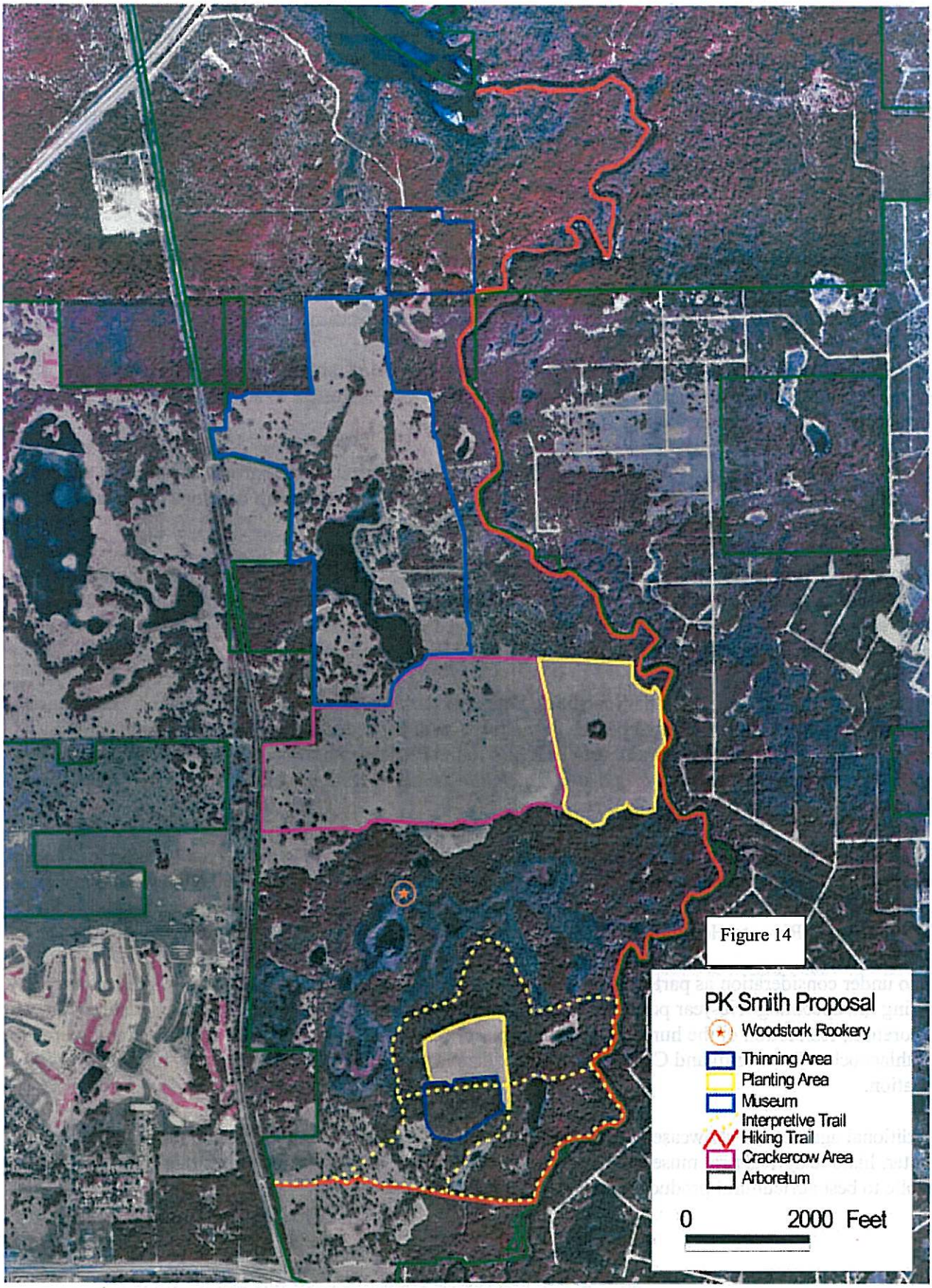

PK Smith Proposal
Woodstork Rookery
Thinning Area
Planting Area
Museum
Interpretive Trail
Hiking Trail
Crackercow Area
Arboretum
0
2000 Feet

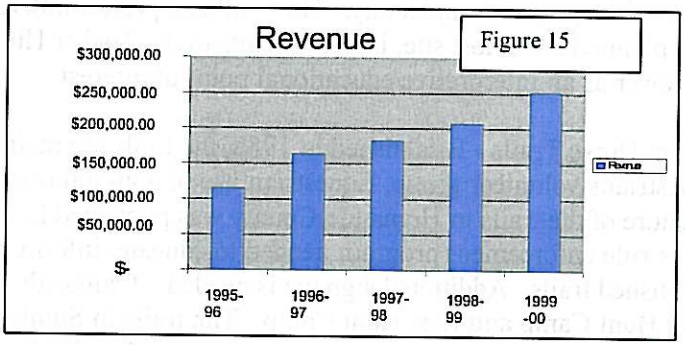
Figure 14

D. Croom Motorcycle Area

In 1973, the Florida Department of Agriculture dedicated the Croom Motorcycle Area, one of the first public areas in the United States designated expressly for the useof off-road vehicles. This area is recognized as one of the finest off-road facilities in the state for forest riding. Its 2,600 acres are located on the old Buttenbaugh mine, a phosphate mine from the 1890's named after the Belgian engineer who stakedtiout, and includes a large borrow pit.

This 2,600-acre portion of the Croom Tract is unique in that it is the only public land in Florida designated specifically as an offroad motorcycle area. Special legislation was passed (Florida Statutes, Chapter 589.071) allowing the operation of unlicensed recreational vehicles.

With its growth in popularity, the Croom Motorcycle Area (CMA) has high maintenance needs. The area is currently the highest recreational revenue generator and sustains the highest density of use and total visits. Increased Park Ranger/Gate Attendant and OPS positions now allow staffing the gatehouse seven days a week. Revenue generated has increased substantially in response.



Planned for the next five years are roadway improvements; fencing, a helicopter landing area, exterior boundary fencing replacement and extension of interior roadway fencing; improvements to the vehicle roadway; erosion repairs throughout the area; specific designation of parking areas; and construction of a new bathhouse and restrooms. Housing renovations are also needed.

Croom Motorcycle Campground – Needed are renovation of the existing campground bathhouse and addition of a second bathhouse; addition of a campground host site and volunteer group camping area; and a sheltered, secure maintenance storage area.

Inexperienced Rider Area– All riders under 16 years of age must be accompanied by an adult. This area was designated in response to parental requests for a training area that kept advanced riders away from young, novice riders. The present location of inexperienced rider area was chosen with parental input. In practice, however, parents have tended to let unsupervised children use the area. Plans are to evaluate the need to eliminate or move this facility.

Croom Motorcycle Area/Day Use Areas – Day Use Area #1 has a new, improved rock base for parking and a kiosk. During the upcoming five year period, a restroom is being built to serve this day use area and the adjacent safety training area. Also planned for this area are picnic tables, fencing, a campground host site, and an outdoor shower. Day Use Area #2 has restrooms, pavilion, and kiosk. Improvements will be made to the roadway and parking area. Off-road riding will be separated from parking and the roadway.

E. Additional Croom Recreational Areas

Croom Hunt Camps - The Croom Tract supports two hunt camps. The Twin Pond Hunt Camp lies on the west side of the Withlacoochee River and the East Hunt Camp lies on the east side of the river. Both receive high attendance during the hunting season and at other times by special forest use permit. Both serve as equestrian trailheads outside blackpowder and general gun hunts.

Iron Bridge Day Use Area - This is the only day use area on this section of the river and receives high visitation. During the upcoming five year period, an interpretive display of the historic significance of this old rail bridge is planned. This area should be added as a *Wacthable Wildlife* location, with signage. The boat launch has severe erosion problems and should be restricted to canoe and kayak launch only with fencing that prevents boat trailers from accessing the launch site. With no entry gate or fencing, vehicle access after the sundown closing time is of concern and invites illegal activities after dark.Construction of control gates, along with the addition of a campground host site, is under consideration to correct the problem.

Croom Hiking Trails –**(Figure 16)** -With its changes in elevation, plant communities, and soil types; this trail system is rated as one of the best in the entire state and is heavily used. Portions of the trails are proposed for inclusion on the Florida National Scenic Trail system. Trailheads are located at Tucker Hill, Silver Lake Day Use Area, Hog Island Day Use Area and River Junction Day Use Area. Trailhead improvements for these sites are needed.

Tucker Hill Trailhead – Planned improvements have been funded through Federal highway transportation improvement enhancement dollars disbursed through the Hernando County Metropolitan Planning Organization. Improvements will include a restroom, parking, fencing, signage, etc. The construction phase of the project is underway. The trailhead project links horse, hiking and off-road bicycle trails. Also planned are a host site, improvements to the Tucker Hill maintenance facility, and inclusion of the fire tower as an interpretive/educational point of interest.

Croom Horse Trails - Established in 1988, the trails are maintained with the assistance of the Croom Trail Equestrians volunteer group. Equestrian use of non-authorized areas has increased. A GIS-accurate brochure of the trails in Hernando County was published in June 2000 and should provide a base for an active rule enforcement program needed to educate, inform, and cite those horse riders who do not stay on established trails. Additional signage is needed. Trailheads are located at Tucker Hill Trailhead, Twin Pond Hunt Camp and East Hunt Camp. The trails in Sumter County were relocated when a portion of the trail was impacted by the donation of land to the Florida National Cemetery. Additional signage and trail marking will be installed. A non-potable well exists on the horse trail near Iron Bridge Day Use Area. Plans are to provide water to horses from this location.

Croom Off-Road Bicycle Trails - Off-road bicycling is rapidly growing in popularity and is already the most popular recreational activity in the Croom Tract. The Southwest Association of Mountainbike Pedalers (SWAMP) maintains the 55 miles of trails. A GIS-accurate brochure was published in June 2000. The trail will follow portions of the annual motorcycle enduro event held in Croom. Review of bicycle, enduro and renegade trails is planned during the upcoming five-year period with the Southwest Association of Mountainbike Pedalers (SWAMP) to help reduce excessive routes and damage to the forest resources.

Croom Enduro Trail - Once a year this activity draws 200+ motorcyclists to run a 70- mile course through the forest. This event has run without major incident each year, due mainly to the cooperation and organization by Florida Trail Riders and the Division. Environmental impacts from this event are under review and an annual assessment of the event will occur and steps will be taken to ensure compatibility with resource protection, and other trail users.

Withlacoochee Trail State Park(WTSP) - This abandoned rail bed, developed into a foot/horse/bike trail administered by the Florida Park Service (FPS), is mentioned in this plan because a portion of it is developed through the Croom Tract of the forest and one of the trail's popular parking areas is within the Forest. A trail connection is planned during the upcoming five-year period from the WTSP to the Silver Lake Recreation Complex to provide overnight camping access for WTSP users.

Kelly-Warner Parcel – This acquisition has little recreational opportunities at the present time although burrowing owls are of interest to bird watchers. At present no recreational facilities or activities are planned.

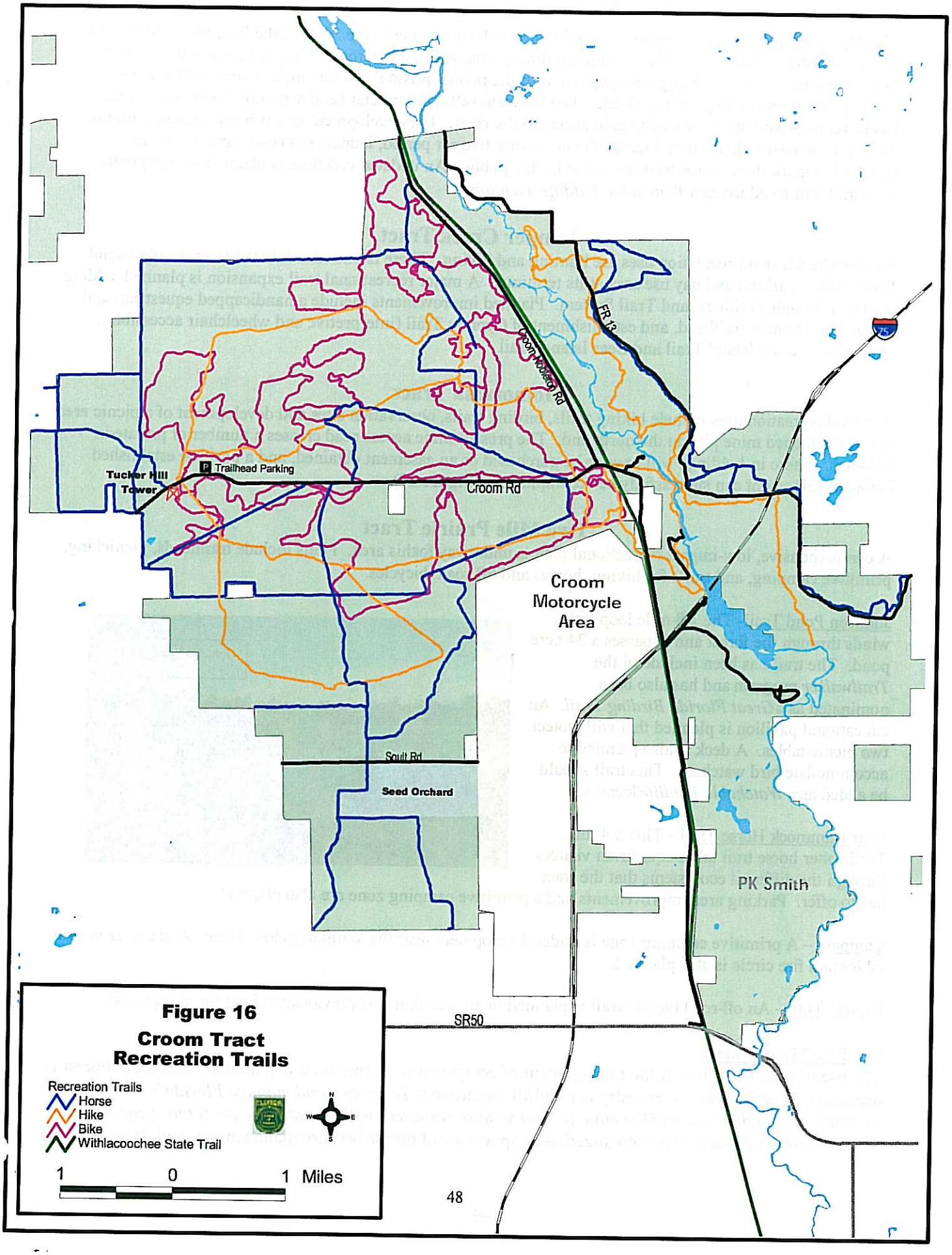


Figure 16

Croom Tract
Recreation Trails

Withlacoochee River Canoe Trail- An integral part of the attraction to the Silver Lake Recreation Area is the 29 miles of the Withlacoochee River, running through the Richloam, Croom, Jumper Creek and Two Mile Prairie Tracts. As well as being very popular with the public, private vendors make a living off the river by renting canoes and selling fishing tackle. The Division sells commercial vendor permits to the canoe and kayak vendors who use the forest to gain access to the river. The development of a primitive canoe camp is underway at Two Mile Prairie. During the upcoming five-year period, launch and river signage will be installed to mark these canoe trails by water for the public. An updated brochure is planned for the public. This trail will be added as a *Watchable Wildlife location.*

Jumper Creek Tract

Jumper Creek's main recreation uses are hunting and hiking. There is one road into the tract, Kettle Island Road, with a parking and day use area at its terminus. A major recreational trail expansion is planned, adding the Otter Slough Trailhead and Trail System. Planned improvements include a handicapped equestrian and wheelchair friendly trailhead, and establishment of Cypress Trail (interpretive and wheelchair accessible), Otter Trail, Kettle Island Trail and Bear Island Trail.

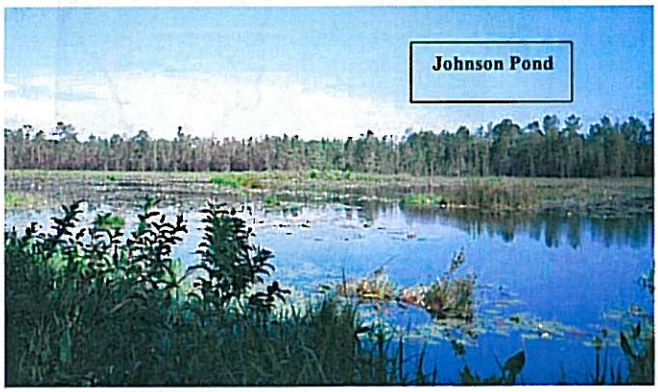
Homosassa Tract

Potential recreation uses include hiking trails, birding trails, observation sites and development of a picnic area at the abandoned mine pits on the north end. The present mine access road crosses a number of private-in holdings. These in-holdings will have to be purchased or an easement obtained, and a position established before development can successfully be accomplished. **(Figure 17)**

Two Mile Prairie Tract

A comprehensive, low-impact recreational plan is underway for this area. Plans include trailheads, picnicking, primitive camping, and trails for hiking, horses and off road bicycles.

Johnson Pond Trail- The 1.8-mile loop trail winds through the forest and bypasses a 24 acre pond. The trail has been included in the *Trailwalker* program and has also been nominated as a *Great Florida Birding Trail.* An educational pavilion is planned that will protect two picnic tables. A deck is also planned to accommodate bird watchers. This trail should be added as a *Watchable Wildlife* location.



Bear Hammock Horse Trail – This 8.4 mile Trailtrotter horse trail takes equestrian visitors through the different ecosystems that the tract has to offer. Parking area improvements and a primitive camping zone are also planned.

Camping – A primitive camping zone is under development near the Withlacoochee River. A picnic area with tables and fire circle is also planned.

Bicycle Trail – An off-road bicycle trail is planned in an area that was previously mined for phosphorus.

5. Fire Management

The use of prescribed fire in the management of ecosystem resources on the Withlacoochee State Forest is necessary if the Division of Forestry is to fulfill its mission; *"To protect and manage Florida's Forest Resources through a stewardship ethic to assure these resources will be available for future generations".* The Division of Forestry has recognized the importance of prescribed fire management, and its use is

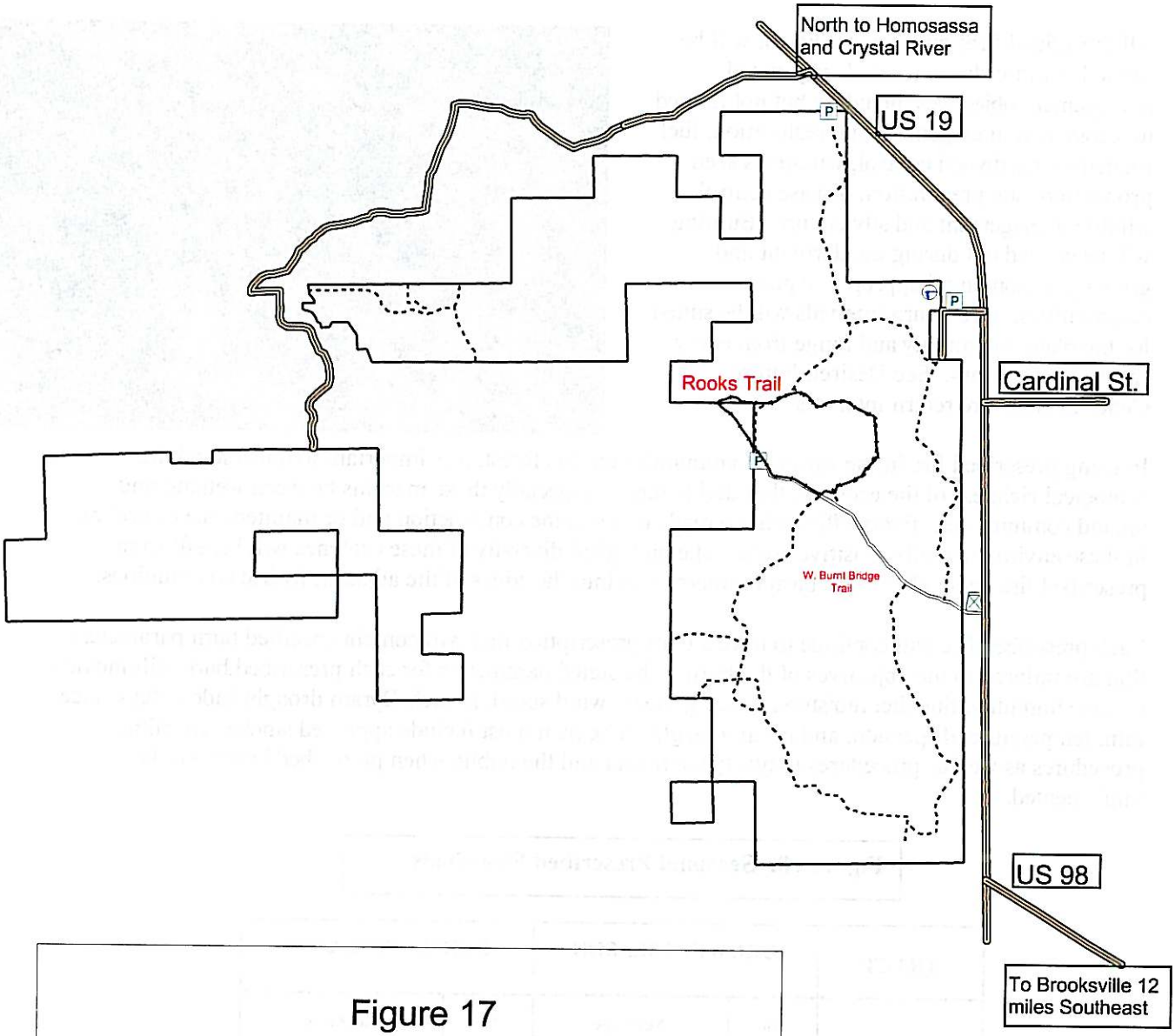


Figure 17

Homosassa Tract

- Multi-use Trails
- Rooks Trail - 2.7 miles
- Heron Observation Site
- Homosassa Tower Site
- Parking
- Highways
- W. Burnt Bridge Rd.
- Boundary Line

N

0.4 0 0.4 0.8 Miles

addressed in Section 5.1 of the State Lands Handbook. Prescribed burning on the state forest will be conducted under the guidelines established in our Withlacoochee State Forest Fire Management Plan **(Exhibit K)** and will be managed by "Certified Burners". As new additions are acquired perimeter firelines will be established where necessary.

All prescribed fires on the State Forest will be carried out in order to meet clearly stated management objectives including but not limited to, ecosystem management and restoration, fuel reduction, hardwood control, wiregrass seed production, site preparation, disease control, wildlife management and silviculture. Burning will be carried out during the dormant and growing season on all appropriate plant communities. Fire return intervals will be suited for the plant community and range from every two to fifteen years. See Desired Future Conditions for fire return intervals.

In using prescribed fire in the various communities on this forest, it is important to understand the ecological richness of the ecotones that divide them - especially those margins between wetland and upland communities. Every effort will be made to avoid the construction and/or maintenance of firelines in these environmentally sensitive areas. The biological diversity of these ecotones will benefit from prescribed fire being allowed to burn uninterrupted into the edges of the adjacent hydric communities.

Each prescribed fire will continue to have a burn prescription that will contain specified burn parameters that are tailored to the objectives of the burn. The stated parameters for each prescribed burn will include relative humidity, fine fuel moisture, burning index, wind speed, Keetch-Byram drought index, days since rain, temperature, dispersion, and mixing height. The plan must include approved smoke screening procedures as well as procedures to notify the media and the public when prescribed burns will be implemented.

Figure 18: Seasonal Prescribed Fire Goals

TRACT	GROWING SEASON		DORMANT SEASON	
	%	Acreage	%	Acreage
Citrus	75%	7,850	25%	2,616
Headquarters	20%	100	80%	600
Croom	75%	4,930	25%	1,643
Richloam	25%	3,850	75%	11,550
Baird	10%	1,200	90%	9,000

Homosassa	50%	1,477	50%	1,477
Annutteliga	50%	759	50%	759
Jumper Creek		N/A		N/A

Fire History and Record Keeping – Burn history maps **(Exhibit L)** will be maintained to record all prescribed burning by season. Burn Day Evaluations will be completed for each burn to record all pertinent burn conditions such as fuel loading, fuel condition, weather conditions, burn technique, plant community type, objective, and an assessment of intensity and severity, and whether objectives were met. A post burn analysis will be performed on all burns, with a detailed Post Burn Evaluation Form being completed for all burns that fail to meet prescription objectives. All of these records will be preserved in the archives at the Withlacoochee Forestry Center. They will be used to evaluate the entire burn program and make adjustments in the future.

WSF	**1996-97**	**1997-98**	**1998-99**	**1999-00**	**2000-01**
Prescribed Burning Accomplishment (Acres)	6,335	15,663	12,270	13,849	112

Inter-Agency Cooperation- The Division will work jointly with the Florida Fish and Wildlife Conservation Commission, the US Fish and Wildlife Service, SWFWMD and other organizations to implement integrated fire management when appropriate. We will work to consolidate burn blocks, and share equipment and resources when needed.

6. The Center for Wildland Fire and Resources Management Training

The old Withlacoochee State Forest Environmental Training Center has been redesignated as the Florida Center for Wildland Fire and Resource Management Training-(FCWF&RMT). This facility is located on the Headquarters Tract of the Withlacoochee Forestry Center. The FCWF&RMT is a full time training center, offering classes in wildland firefighting, prescribed burning, incident management, and natural resource management. This training is available to other agency personnel and members of the public.

In order to keep up with the ever-expanding requests for training, the Center will need to expand it's capabilities in the future. The Division hopes to construct a state-of- the-art training building with a 100-person capacity. Plans also include the construction of a fifth 20-person dormitory and construction of an instructor lodge consisting of 15 double occupancy rooms with space and capabilities in each room to work after hours. With additional construction, we could host two classes per week with 40-50 students in each class. This should be sufficient to meet the demands of the resource professionals in the State of Florida.

7. Wildland Firefighting Equipment Training and Demonstration Site

Wildland firefighters (Forest Rangers and Senior Forest Rangers) are required to perform annual cross training on different types of wildland firefighting equipment. Traditionally, this activity is conducted on various site-disturbed areas on the forest prior to replanting. Each year the site must be moved due to silvicultural reforestation efforts. Finding a new site, which would meet the needs for cross training is becoming more difficult.

Creation of a ten-acre permanent location for these activities is prudent. Environmental disturbance will be localized eliminating the need to find a new area each year. A ten-acre parcel would be sufficient to handle the necessary training required for certification and proficiency training as a wildland firefighter.

The area proposed for this site is adjacent to the old airstrip in the Richloam Tract of the State Forest. **(Figure 19)**

8. Research Projects/Specimen Collection

Research is performed on certain areas of the forest on a temporary or permanent basis for the purpose of obtaining information, which furthers the knowledge of forestry and related fields. The Division of Forestry cooperates with the U.S. Forest Service, the University of Florida, and other educational institutions and governmental agencies, in the accumulation of this information. Various research projects are being conducted on the forest at the present time, including timber-grazing relationships, cyclic water studies in cypress domes, natural pine regeneration studies and cypress silvicultural studies. Additionally, two doctoral students have conducted studies with cogon grass. The U.S. Forest Service is conducting research comparing herbicide vs. burning as a form of hardwood control. The Division will consider assisting with research projects when funds and personnel are available.

Studies permitted on the State Forest will potentially provide information that will be helpful for forest management. The Chief of Forest Management will approve all research projects in advance. Any requests for research projects must be submitted in writing to the Withlacoochee Forestry Center (WFC) Resource Administrator for forwarding to the Forest Management Bureau for approval. Requests must include a letter outlining the scope, methodology, and location of the proposed project. Requests are subject to review by Division Biologists, Forest Entomologist or Forest Pathologist, as appropriate. Permission to conduct research will require that the investigator provide copies of any reports or studies generated from research projects to the state forest staff. The status of existing projects will be subject to periodic review by state forest staff.

The WSF biologist has established four vegetation plots to monitor the impact of Velpar (Hexazinone) on non-target species. The University of Florida continued its multiple year cogon grass research project on both the Headquarters and Croom Tracts.

Division of Forestry's entomologist conducted research at the Colonel Robins Recreation Area. The study subject was tree mortality in mature long leaf pine that had been subjected to a prescribed fire that burned into the duff layer.

Herbarium- A state forest herbarium has been established to facilitate plant identification and vegetation research. Still in the initial stage, it houses 133 specimens arranged by family and genus. All specimens are cataloged and entered into a database so that information regarding habitat, status and occurrence can be compiled. The WSF biologist maintains our herbarium.

9. Law Enforcement

Due to increased public usage of state lands, enforcement of federal, state, and county laws, and state forest rules and regulations, is increasingly important. Currently, investigators from the Office of Agricultural Law Enforcement (OALE) are responsible for patrolling the WSF. Local law enforcement officers patrolling their respective areas augment OALE services. Wildlife officers from the FWC enforce fish and wildlife regulations as well as enforcing State Forest rules.

Special rules of the FDACS and the Division were established in 1972 for better control of state forest traffic and camping. These rules have been expanded to cover all state forest activities and are under Chapter 5I-4 of the Florida Administrative Code. Additional law enforcement officers with rotating shifts will be needed to adequately meet the demands created by ever-increasing numbers of forest visitors. The use of auxiliary officers may help meet this need.

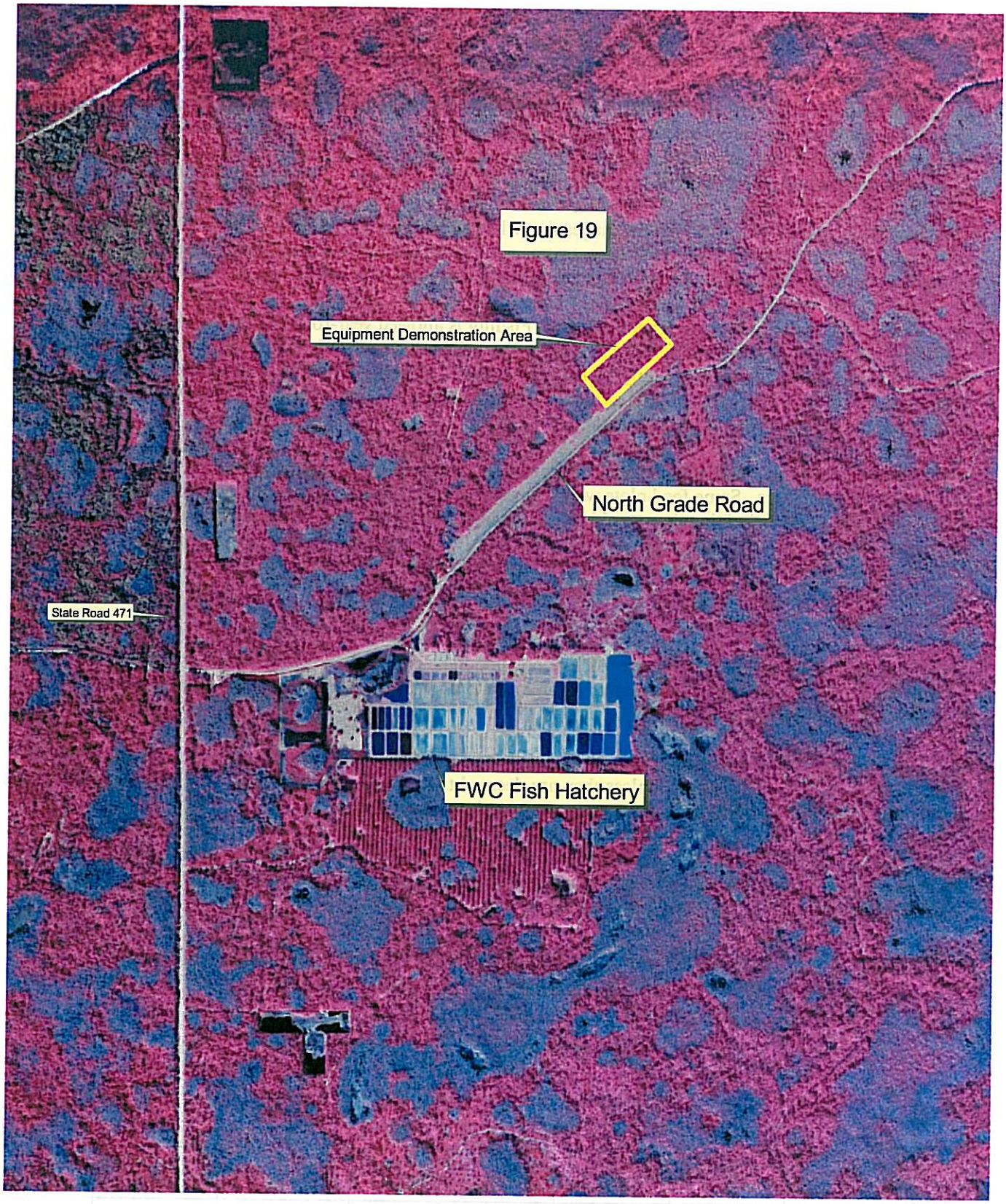


Figure 19
Equipment Demonstration Area
North Grade Road
State Road 471
FWC Fish Hatchery
Demonstration area.shp
Dof0002.shp
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10. Wildlife and Fish Management

The native wildlife resources of the WSF are of major importance, not only to the maintenance of healthy, functioning ecosystems, but also to the general public. Management of the resources of the forest must accommodate game and non-game species, and protect rare biota. Maintaining the overall health of the natural communities of the forest through ecosystem management provides the best management strategy to incorporate many different aspects of the forest and its uses, without compromising the health and viability of its natural systems and native species.

The Division in cooperation with FWC manages the wildlife resources on the WSF. The staff of WSF meets with local FWC biologists and law enforcement personnel annually to review current regulations and proposed changes, coordination of wildlife surveys, and recreation and law enforcement issues.

The WSF is open to the public throughout the year. Fishing is allowed year-round in the rivers and ponds, and hunting is allowed during the established hunting seasons. Citrus, Croom, Richloam, Homosassa, and Jumper Creek Tracts are each individual Wildlife Management Areas. Hunting regulation summaries for the Withlacoochee State Forest can be found at the following website www.myflorida.com. Each Wildlife Management Area has certain special stipulations.

FWC maintains a number of food plots on WSF, many of which were established in powerline rights-of-way and along road shoulders. Some food plots were also established in the Citrus Tract in conjunction with the field trial events in the belief that they would increase game bird populations. Maintenance of these food plot has varied over the years due to funding and staffing levels. This past year FWC biologists replanted several food plots within the WSF. The Division and FWC will revisit management practices for maintaining food plots and wildlife openings. Currently all food plots have been mapped and will be monitored by FWC as well as Division staff.

Hunting and trapping will be used to control feral hog populations in order to minimize their impacts on native ground cover. Hogs are currently considered a game species on WSF. To help reduce feral hog populations size and bag limits have been removed.

The Division recognizes the importance of snags for their wildlife value. As a general rule, snags will be left alone in their natural environment, unless they are deemed to be a potential hazard. Areas with significant pine timber mortality will be salvaged as required by the severity of the situation.

Game Populations-FWC routinely conducts game population surveys and collects information on harvest data for most game species found on the forest. Below is a compilation of harvest totals for game found on the forest for fiscal year 99/2000.

Florida Fish and Wildlife Conservation Commission Harvest Data FY 1999-2000

	Croom	Citrus**	Richloam	Baird	Homosassa	Jumper Ck.
Deer Total	96	114	93*	27		23
Hog	1		119	9	3	22
Turkey	9		41	16	7	3
Duck					7	0
Dove		3			0	
Quail	6	273		10		3
Rabbit	8	26		0	0	
Squirrel	64	194		648	159	28
Raccoon		1				
Bobcat						
Pressure (man days)	No estimate	7180	No estimate	2192	374	2591

* Does not include archery take
**Small game not counted during archery and gun hunts

Hunter Access-Hunting season dates, limits and methods are established annually by FWC. Access to the Withlacoochee State Forest WMA is restricted to open designated roads as outlined in the WMA brochure, printed annually. All-Terrain Vehicles are only allowed by hunters participating in mobility-impaired hunts.

Sensitive Species (General)-Specialized forest management techniques will be used, as necessary, to protect or increase endangered and threatened species and species of special concern or any identified new species found on the WSF, as applicable for both plants and animals. Species-specific management plans will be developed when necessary. Continued biological surveys will be conducted to determine locations of these species.

The following management practices are recommended to protect and preserve threatened or endangered species that are present on the forest:

1. Locate cover, habitat/foraging ranges and breeding areas used by rare and endangered species and include locations on a vegetation map.

2. Protect and properly manage habitat important to rare and endangered species.

3. Implement other specialized management practices for rare nd endangered species as deemed necessary. Generate specialized management plan if necessary.

Three key, rare or endangered species known to be present on the Forest are the red-cockaded woodpecker, the gopher tortoise, and the Sherman's fox squirrel. Each of these species to a great extent utilizes a different zone in the ecosystem. The redcockaded woodpecker inhabits the arboreal zone, the Sherman's fox squirrel inhabits both the arboreal and terrestrial zones, and the gopher tortoise inhabits both the terrestrial and fossorial zones.

These three species taken together can act as an indicator of the overall health of the sandhill community. By monitoring and enhancing the populations of each of these species, we should be able to maintain a healthy, viable sandhill community. Of particular concern in this example is the Sherman's fox squirrel. Currently, very little is known about the life cycle and requirements of this species. Though we know a substantial population of the squirrel exists hereon WSF, as yet no census or population studies have been performed.

It is important to consider that the decline of any single species, whether plant or animal, generally indicates a more serious problem with the health and viability of the ecosystem a a whole. The analysis of the decline of different species in a community can provide clues to problems in the structure, function, and integrity of the ecosystem. To accomplish this goal, it is important that we work closely with the FWC and participate in information sharing with other managing agencies and organizations.

Threatened/Endangered and Other Vertebrates-The Division and FWC work jointly on the management of non-game species. The threatened and endangered and other vertebrates presentand documented on the forest are included in the combined list in Listed Species section of the plan.

There are other listed vertebrate species that cannot be readily observed and are, or may be present on the state forest. These species include the Florida gopher frog, short tailed snake, Florida pine snake, Eastern

tiger salamander, striped newt, Eastern indigo snake, and Southern hognose snake. Of these, the Florida gopher frog, Florida pine snake, Southern hognose snake, and Eastern indigo snake have all been verified in the state forest. To properly manage these species we must carefully consider the habitat of not only the uplands but also the wetlands.

Monitoring will begin for the amphibians to determine distribution. Initially we will identify at least two candidate wetlands in each of the following areas, the Croom, Richloam, Citrus and Headquarters Tracts, and perform monitoring to determine the presence or absence of any amphibians.

Two primary techniques of monitoring will be utilized: scan searching and trapping. Scan searching will be done to monitor species that can be identified by sound. For example it will be the primary method for sensing the Florida gopher frog. Pitfall trapping and or funnel trapping in combination with drift fencing, will be done in attempt to locate other suspected amphibians. If populations are detected, a population census will be considered.

We will also refine management of wetlands and other plant communities that are not covered by the red-cockaded woodpecker management umbrella. Flatwoods management (in terms of silviculture, invasive species management, and prescribed burning) will be carried out in a manner that would provide suitable habitat supporting a viable population of red-cockaded woodpeckers. Although not endemic to flatwoods, the Sherman's fox squirrel and the Bachman's sparrow are associated with flatwoods, are in decline and would benefit from the noted RCW management umbrella. Numerous species of flora such as the endangered *Lechea divaricata* (drysand pinweed) and threatened *Lilium catesbaei* (Catesby's lilly) would also benefit from RWC habitat management.

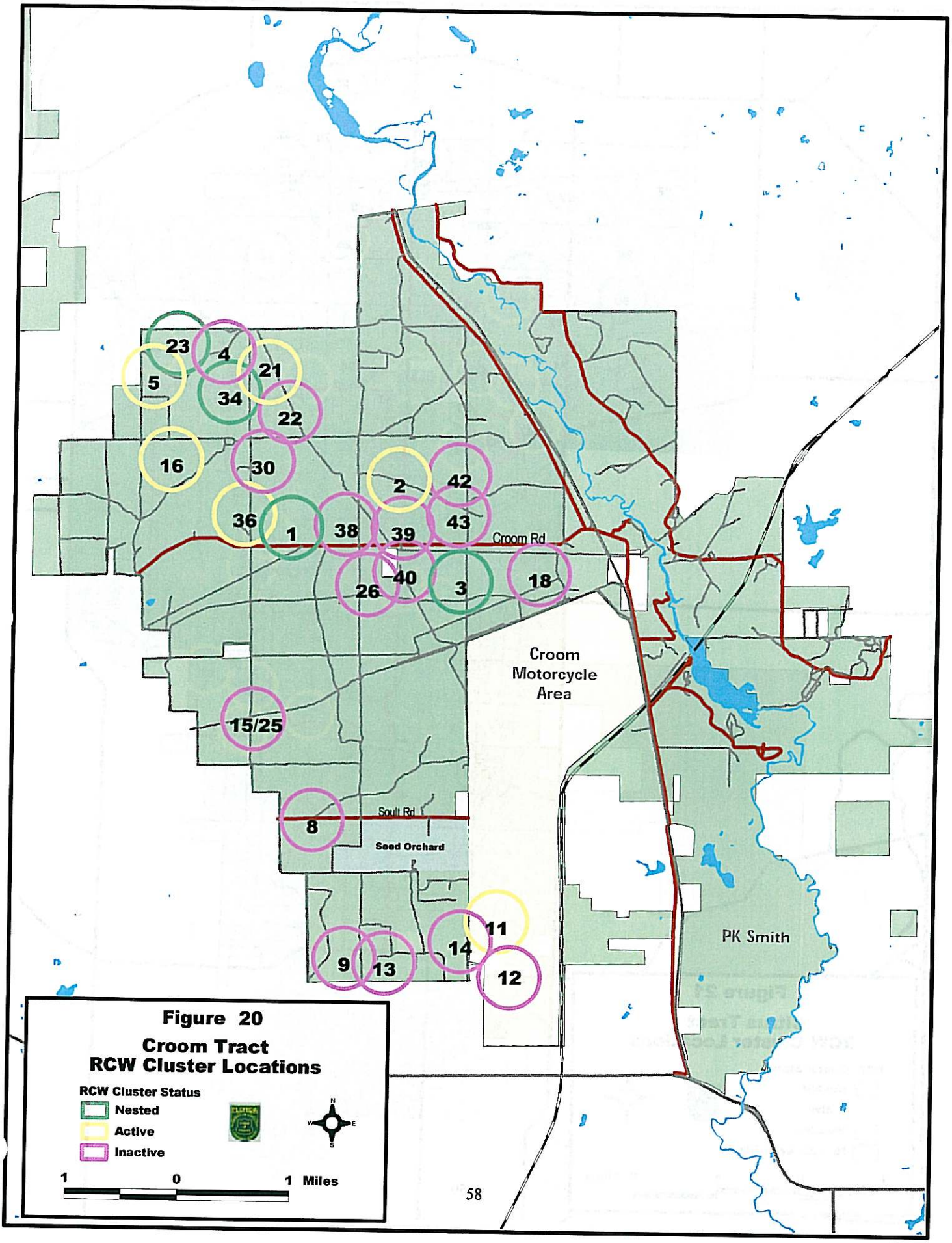
Ponds and other wetlands will be more closely scrutinized and burning will be done in these areas as if suspected wetland vertebrates are present. Ideally, blocks containing wetlands will be burned to ensure that the wetland will also be burned appropriately. The timing and objectives of these types of burns must partially be driven by the needs of the wetlands. Excluding wetlands with fire lines, and burning only wetlands that are full of water (and therefore resist burning) are practices that will be phased out.

Red-cockaded woodpeckers-A detailed management plan for the treatment of RCW's was written in 1999 and is available at the Division of Forestry State Office and the Withlacoochee Forestry Center. Accomplishments regarding RCW management are summarized under Goal 2, Objective 3, on page 3 of this plan. The management of red-cockaded woodpeckers (RCW's) on the WSF follows the general guidelines listed below. These guidelines will serve as the RCW management goals for the next five years.

1. Known clusters on the forest are surveyed to determine the status of activity on each tree. When surveyed, activity level and location of each tree are recorded, and each tree is assigned a scorch index. The scorch index rating is determined by the amount of resin accumulated on the tree, the height of the resin from the ground, and the density of vegetation surrounding the tree.

2. Accurate maps of the tree clusters are maintained using timber stand maps. When new cavity trees are identified, they are assigned a chronological number and tagged by the FWC. All trees are tagged on the north face. The trees are painted with a white band around the circumference of the stem approximately 5.5 feet from the base. This band is freshened as necessary, and provides a very important visual aid when surveying the clusters. **(Figure 20 & 21)**

3. Prescribed burning is a part of regular ecosystem management activities. RCW colony areas are included, and in some cases targeted, in the regular prescribed burning plan for the forest. However,


23
4
21
5
34
22
16
30
2
42
36
1
38
39
43
Croom Rd
40
26
3
18
Croom
Motorcycle
Area
15/25
Soult Rd
8
Seed Orchard
11
14
9
13
12
PK Smith
Figure 20
Croom Tract
RCW Cluster Locations
RCW Cluster Status
Nested
Active
Inactive
1
0
1 Miles

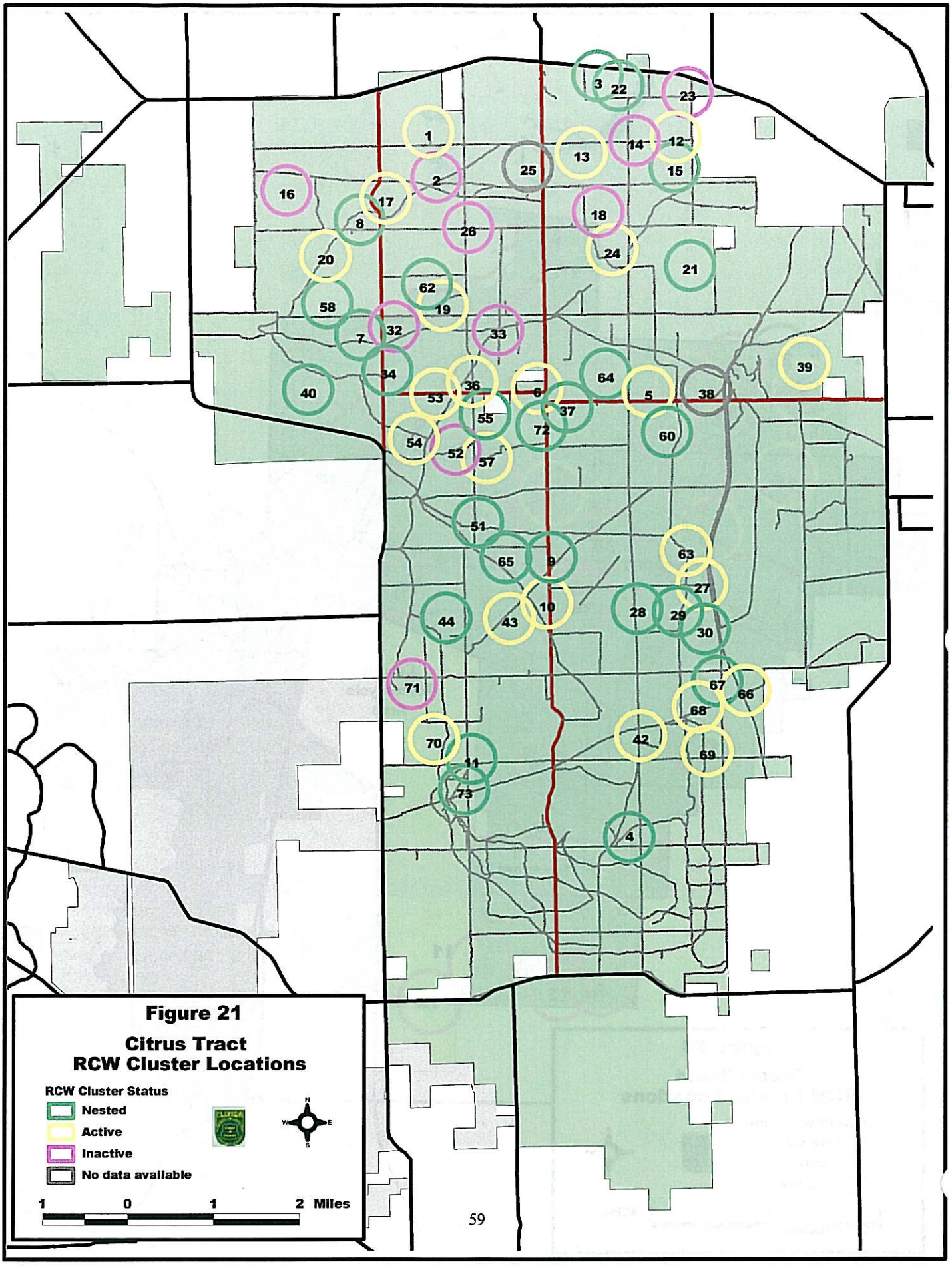


Figure 21
Citrus Tract
RCW Cluster Locations
RCW Cluster Status
Nested
Active
Inactive
No data available
1 0 1 2 Miles
N
W
E
S

special precautions are taken to reduce fire damage to cavity trees with high scorch indices, or which are known to be nesting or roosting trees.

4. A good RCW cluster site is a mature, park-like pine stand with 40-80 square feet of basal area per acre. Minimum tree spacing of 20-25 feet is important to reduce potential future risk of insect damage. If a cluster site severely exceeds these criteria, thinning may need to be conducted according to item 5 below.

5. Should pine timber harvesting become necessary in an active cluster due to insects, disease, or crowding, an effort will be made to leave a minimum of 5 acres undisturbed around individual RCW tree nests, and a minimum of 10 acres will be left around RCW clusters.

6. Few or no hardwood trees should exceed 10 feet in height within a cluster site. When the hardwood mid-story grows to the level of the cavities, a high rate of cavity abandonment occurs, leading eventually to the loss of the colony. In addition, sapling pines growing in the vicinity of the cavity trees can also cause abandonment. Generally, prescribed fires can control the hardwoods, but in severe cases, mechanical removal and/or chemical application will be required.

7. Stands of timber contiguous to RCW clusters will be managed to improve foraging stand quality and access.

8. All known RCW's on the state forest will be banded. RCW sites will be monitored to determine approximate populations and population trends.

9. Artificial cavities, as well as, other management techniques will be utilized to augment and expand the current population.

In 1995 there were 58 known active colonies on the Citrus and Croom tracts of the WSF; in total, there were 106 known clusters, many of which were inactive, and several with status unknown. Within these colonies a total of 683 cavity trees were identified; the exact number and activity status changes constantly. Our data indicate an upward population trend (recently) in Croom, and a slight declining trend in Citrus. However, it is important to remember that, until all birds are banded and monitored, there will always be uncertainties in the population status and trend.

Bald Eagles-There are currently four known bald eagle nests present on the Withlacoochee State Forest. Two are located on the Richloam Tract, one on the Baird Unit, and one on the Kelley Warner Parcel. All were active during the winter 1999-2000.

There are several eagle nests in the vicinity of the Homosassa Tract but none appear to be actually on WSF. The FWC offers an eagle locator web page that will assist with locating all pertinent eagle nests in the future.

Sensitive Plants-*Justicia cooleyi*-The endangered plant, *Justicia cooleyi*, or Cooley's water willow exists at the McKethan Lake Recreation area on the Headquarters Tract of the WSF. The population has been inventoried and mapped with funding from the U.S. Fish and Wildlife Service. Another population of *Justicia cooleyi* has also been identified on the Baird Unit.

The population on the Headquarters Tract is still present but has declined in numbers due to undetermined reasons. There is evidence that the deer herd has been browsing heavily on this small population and

reducing the size and perhaps the density of the plants. An exotic control program has been initiated to control *Ardisia crenata*, (coral ardisia) which threatens to overtake the hammock in which it is found. The population on the Baird Unit has been mapped and is much larger than originally thought. Treatment of cogon grass that threatens to overtake this second area is planned. It will be treated with three percent Roundup-Pro using a wick applicator. The new population is currently not facing any invasive plant issues at this time.

Peperomia humilis and Asplenium auritum-Peperomia humilis (low peperomia) has been located in the Baird Unit. This plant is listed by the state of Florida as endangered. It is epiphytic on large oak trees, preferring the same habitat as *Asplenium auritum* (eared spleenwort), another state listed species. The *Peperomia* has been observed on multiple trees this year and appears to be withstanding the droughts. Both of these species may be threatened by skunk vine if it infests into Baird, and Richloam hammocks. Work should begin to inventory and treat skunk vine (if possible) in these areas to protect these rare species.

11. Exotics

The policy of the Division is to locate, identify and control invasive exotic pests. Where exotic plants are known to exist, control plans have been developed and implemented based upon the severity of the infestation, its location, native species impacted and the potential of the exotic to invade natural areas. Invasive exotic plant species that are presently found on the WSF include *Abrus precatorius* (rosary pea), *Ardisia crenata* (coral ardisia), *Dioscorea bulbifera* (air-potato), *Imperata cylindrica* (cogon grass), *Ligustrum sinense* (Chinese privet), *Lygodium japonicum* (Japanese climbing fern), *Melia azedarach* (Chinaberry), *Nephrolepis cordifolia* (Boston fern), *Paederia foetida* (skunk vine), *Sapium sebiferum* (Chinese tallow), *Solanum viarum* (tropical soda apple), *Crotalaria spectabilis* (rattlebox), *Morus alba* (white mulberry), *Pueraria lobota* (Kudzu), and *Eichornia crassipes* (water hyacinth). When new exotics are discovered control plans will be developed or refined to address the situation.

Exotic animal species that are confirmed to be on the WSF include feral hog, armadillo and coyote. The Division will cooperate with the FWC in efforts to control exotic animal species.

All management activities and proposals will be scrutinized for their connection to exotic species. Those activities and proposals found to promote invasive exotics would be eliminated or not approved. The WSF has developed an exotic species control plan, which will be followed and implemented when dealing with resource-impacting management activities.

Cogon grass, a main emphasis for the staff on the WSF, is especially detrimental in that it out-competes and replaces all native ground-cover plants in a variety of plant community types. It exists in dense stands that prevent the regeneration of native trees. Although it spreads most rapidly by vegetative means, wind blown seeds produce dispersed populations that may remain undetected. Its elimination requires multiple herbicide treatments and management activities must be carefully monitored to prevent its spread since it easily propagates from rhizome fragments. The Division will aggressively act to control this invasive exotic plant through direct action, interagency cooperation, grants and contractual services. Additional spraying equipment has been purchased and temporary personnel have been requested so that in the future all known populations will receive an annual herbicide treatment.

WSF currently has 216 acres of cogon grass growing on the forest with 121 acres in the Citrus Tract, 50 acres in the Croom Tract, and 45 acres on the Headquarters. The CARL Lands managed under the WSF have a few isolated spots of cogon grass and, within the next planning period, these areas will be mapped.

The table below is a representation of exotic species treated on the state forest.

Figure 22: Exotic Species Control Table

Species	Treatment Method	Acres Treated	Percentage of Acreage Treated 1996-2001
Cogon grass (*Imperata cylindrica*)	Herbicide, Fire	150	90%
Skunk Vine (*Paederia foetida*)	Herbicide	<1	0%
Air Potato (*Dioscorea bulbifera*)	Herbicide, Bulb Collection	1	100%
Chinese tallow (*Sapium sebiferum*)	Herbicide	<1	100%
Coral Ardisia (*Ardisia crenata*)	Herbicide, Mechanical	25	71%
Chinaberry (*Melia azedarach*)	Herbicide	<1	50%
Tropical soda apple (*Solanum viarum*)	Mechanical	<1	90%
Japanese climbing fern (*Lygodium japonicum*)	Herbicide, Burning	<1	50%
Kudzu (*Pueraria lobota*)	Herbicide	<1	100%
**Water hyacinth (*Eichornia crassipes*)	Herbicide	<1	100%
Boston fern (*Nephrolepis cordifolia*)	Herbicide	<1	100%
Rattlebox (*Crotalaria spectabilis*)	Mechanical, Burning	1	2%
Chinese privet(*Ligustrum sinense*)	Herbicide	<1	100%
White Mulberry (*Morus alba*)	Herbicide	0	0%
Rosary pea(*Abrus precatorius*)	Herbicide	<1	25%

**Water hyacinth has been treated by DEP and SWFWMD in McKethan Lake Day Use Area.

12. Utility Corridors And Easements

The use of State Forest property for utility lines will be discouraged to the greatest extent possible. Co-location with existing corridors will be considered, but will be used only where expansion of existing corridors does not increase the level of habitat fragmentation and disruption of management and multiple-use activities. The Division will further encourage the use of underground cable where scenic considerations are desirable. Easements for such utilities are subject to the review and approval of the Board of Trustees of the Internal Improvement Trust Fund.

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

When such encroachments are unavoidable, previously disturbed sites will be the preferred location. The objectives, when identifying possible locations for new linear facilities, will be to cause no damage to sensitive resources (e.g., listed species and archaeological sites), to avoid habitat fragmentation, and to limit disruption of management activities and resource-based multiple-use activities, such as recreation.

13. Solid Waste Management

There is a continuing problem of solid waste dumping on the State Forest. Indiscriminate dumping of garbage, old cars, building materials, etc., has created many unsightly and dangerous areas. Efforts to correct this problem are concentrated in two major areas: education and stricter law enforcement.

Education of the public will be accomplished by news releases to radio and television stations, warning letters to offenders, signs and presentations to civic clubs. A fully educated public should be less likely to litter the landscape.

Department investigators with assistance from FWC officers and local Sheriff's offices will direct enforcement of state litter laws. Any persons apprehended dumping on the WSF will be prosecuted.

There are two former landfills and one active landfill on the WSF. A closed 46.1-acre Hernando County landfill is in the Croom Tract and a closed 60-acre Citrus County landfill in the Citrus Tract. Citrus County operates an active 80-acre landfill on land acquired from the Division. Any requests for new landfills or the expansion of existing sites on the State Forest will be denied.

14. Mining

The U.S. Government has retained the mineral rights on the original portions of the WSF. Mining operations are not compatible with other state forest uses and not having control of the mineral rights has resulted in periodic mining activity on the WSF.

The most current activity was a 671-acre active mining operation on the Radar Hill portion of the Citrus Tract. This operation was conducted by Florida Rock Products Corporation under a mining lease from the U.S. Forest Service. The lease expired on July 29, 1998 but several new lease applications were submitted by Florida Rock to the Bureau of Land Management and the U. S. Forest Service. All applications were denied and appeal time frames have expired. The State of Florida and the United States, by and through the Forest Service, U. S. Department of Agriculture, have signed an agreement to initiate a value-for value land exchange, under the General Exchange, Federal Land Policy and Management, and Bankhead-Jones Farm Tenant Act authorities. This lays the groundwork to transfer the mineral rights back to the State. An appraisal process has begun and it is estimated that all necessary federal and state procedures to finalize the exchange could be completed by early 2003.

Florida Rock is conducting reclamation of the Radar Hill Mine. Reclamation of the mine has to meet Federal guidelines and must be completed to the satisfaction of the Division and in a timely manner. Sloping of disturbed areas, reforestation and erosion control were part of ongoing reclamation efforts during the past year.

15. Roads

This topic is also addressed in the Management Needs section of this plan. A comprehensive road management plan reviewing forest access and the welfare of WSF forest roads is in preparation and will be a primary focus of management staff over the next five years. It is critical that the current system of roads provides for efficient, cost-effective access that has a negligible impact on the natural resources of the WSF. Efforts will be made to abandon unnecessary roads, firelines, and hydrological disturbances and restore them where necessary to the greatest extent possible. The Richloam Tract of the WSF will receive the highest priority for these efforts.

Development and construction of roads in existing forest tracts and the opening of roads in newly acquired properties will be kept to the absolute minimum required to provide access for resource-based recreation activities and to manage and administer the WSF.

All road, culvert and bridge planning, construction, drainage and maintenance will be performed in compliance with the guidelines prescribed in Silviculture Best Management Practices and as required by the rules of the area Water Management District. Plans for establishment of new roads will be reviewed locally and by the Division State Office as well as the Acquisition and Review Council (ARC) and will follow procedures outlined in Chapter 18-2.010, Florida Administrative Code. All construction and fill materials will make use of local soils if available. When fill materials must be acquired from off-site the compatibility with the local ecosystem will be an important consideration. These materials will first be free of any exotic or noxious weeds such as cogon grass. Placement of signs and roadwork will comply with DOT standards to the greatest extent possible.

Currently WSF has 782 miles of primary and secondary open forest roads (Richloam 401, Croom 144, Citrus 237), which are used for a multitude of public, residential, and commercial access. Roads within the WSF will be maintained regularly over the next five years. Maintenance of roads will include grading, maintenance of ditches and slopes, repairs to bridges and the inspection and or replacement of culverts that have become plugged or washed out. These numbers do not reflect roads that access some of our CARL Lands. At present the road mapping is concentrating on the original state forest, which has numerous roads and access points. Once this section of mapping is completed, mapping of other tracts will begin.

Forest roads also serve as fire breaks in the State Forest fire management program. Due to the limited resources available, State Forest staff confines road work to those primary routes receiving the heaviest use in each tract. Much of this roadwork is for specific activities responding to special needs such as campground access (e.g., FR 13 and 10 in Citrus, Motorcycle Entrance Road in Croom); hunter and hunt camp access in Richloam, and timber sale-log truck access. The Withlacoochee Forestry Center road crew does approximately 300 miles of grading each year. Several of the main grades (e.g., Croom Rd, Croom-Rital Rd, Clay Sink Rd., and Lacoochee Grade) are maintained cooperatively by county road departments.

Steps are underway to rename "trails" (e.g., Trail 13) to "forest roads" (e.g., Forest Road 13). This effort is being coordinated with each county's 911 system and the public works departments are assisting with the fabrication of the actual signage. Speed limit and caution sign needs are also being addressed.

During the next five years efforts will be made to maintain and replace damaged or stolen road intersection signs in the Croom Tract. This will be accomplished through a partnership with Hernando County and the Division. Plans will be initiated to expand this program throughout the WSF.

16. Grazing

Cattle grazing permits are issued for various periods of time at various rates dependant on location and condition of vegetative cover, and may be renewed on each anniversary date by the permittee if she/he submits a written request and makes payment, in advance, of the annual fee. Leaseholders are required to establish and maintain fences on the area and to limit the stocking level based on recommendations from IFAS or the office of Natural Resources Conservation Service, Range Management (NRCS). Lease areas are monitored for damage and the spread of exotics.

Currently the WSF has five cattle leases for a total of 3,026 acres. Three of these leases are renewals of leases on the Richloam Tract and the additional two are on recent acquisitions of pasturelands through the CARL program.

The Division of Forestry maintains a herd of Florida Cracker Cattle and Florida Cracker Ponies currently at our Richloam Tract and Seed Orchard. These cattle resemble Texas longhorns and are descendants of the Andalusian cattle brought by the Spaniards when they settled Florida.

The cattle herd is being maintained for historical purposes and genetic preservation. They are adept at surviving in the forest environment and are an important genetic resource, should woods grazing again become an important agricultural practice in the south.

The "Cracker" ponies are the offspring of the horses ridden by Florida Cattleman of the 1800s. A stallion and four mares were donated to the Florida Department of Agriculture and Consumer Services in 1984 by

a former state legislator who bred and raised them as a hobby and wanted to assure the preservation of the breed.

The ponies are direct descendants of the Spanish horses brought to Florida in the 1500s by Ponce De Leon. They got the name of "Cracker" pony from popular folklore, which claims the Florida Cowboys were known as "Cracker" because of the noise they made with their whips as they tended cattle.

The Florida Department of Agriculture and Consumer Services, Division of Animal Industry provides overall program direction through its Program Administrator, Stephen Monroe. The University of Florida through Dr. Tim Olsen provides guidance and direction regarding breeding/genetics of the herd. Management strategies and overall herd maintenance is the responsibility of the Withlacoochee Forestry Center Maintenance Section. The herd is a registered herd through the Florida Cracker Cattle Breeders Association (FCCBA). In addition the state forest hosts the annual meeting/cattle sale of this organization. Selected registered stock is sold at this yearly Cracker Cattle auction to ranchers interested in promoting or preserving this endangered minor breed. In addition, each year the herd is evaluated and culled of animals lacking genetic purity for this historic breed and is sold as surplus through local livestock auctions.

A Cracker Cattle management plan has been developed and implemented for long-term herd management. One long-range goal over the next five years will be to develop a grazing area on our PK Smith Unit for public display of our Cracker Cattle Herd. A copy of this plan can be found in the office of the Maintenance Administrator for the Withlacoochee Forestry Center.

17. <u>Apiaries</u>

There is currently one apiary permit active in the Richloam Tract of the WSF. Additional permits are available on a twelve-month basis and will be re-issued upon advance payment of the fee. The current rate charged is $17.50 per site per year with a maximum of 50 hives per site. Apiaries are administered following the guidelines approved by the governor and Cabinet and identified in our State Forest Handbook.

18. <u>Silvicultural Management</u>

Timber is a valuable economic resource and will be harvested for the purposes of ecological restoration and improving forest health during the five-year period covered by this management plan. Under ecosystem management these guidelines shall provide for the perpetual protection, management, and replacement of the forest resource, including timber, while accommodating other compatible uses, needs, and requirements on the forest.

Timber harvesting guidelines will be developed for each sale on a site-specific basis to minimize damage to sensitive resources. These guidelines will address: the importance of snags for wildlife habitat, BMP's, specific needs (as related to rare and endangered species), limitations on harvesting in wet periods, machinery use, road systems, protection of ground cover, and other items that may be pertinent to a specific site. These items will be addressed in the timber sale contract. Silvicultural prescriptions will favor the development of larger and older trees. There will be no set rotation age for any species. Natural regeneration will be dependent on the site and species characteristics.

Areas proposed for timber harvest will be surveyed for listed species, prior to marking as part of our environmental assessment. State Forest staff will develop harvesting plans. All harvesting on lands adjacent to lakes, rivers, and wetlands will be carried out in compliance with the public lands section of

the "Silviculture Best Management Practices" publication, and will be conducted so as to meet or exceed these guidelines.

Normally, timber sales are advertised for competitive bids and sold on a lump sum or per ton basis. A sealed minimum acceptable price is set prior to bids being opened. This price is based on the particular class of timber for sale, local stumpage prices, and logging conditions. Salvage sales, where it is necessary to rapidly remove timber damaged by fire, insects, disease or other natural disasters, or specific areas where it is impractical to mark/cruise timber, will be sold on a per ton basis. In such sales, the mill receiving the wood furnishes weights of the timber, which will be acceptable for payment purposes.

Reforestation plans will be developed for each site on a site-specific basis. Existing plant communities, listed species, stocking levels, species to be planted, and site preparation techniques will be addressed in the Environmental Analysis Process.

Reforestation will be a key component in restoring natural ecosystems. In preparing restoration areas for reforestation, site preparation techniques that will have the least damaging impact on desired ground cover species, and still be effective, will be selected. Fire will be the preferred technique, however, herbicides, mowing and roller chopping or combinations of the above may be necessary and will be prescribed if their impact on sensitive ground species will be minimal. Private vendors will be used whenever possible to implement silvicultural prescriptions.

Objectives for the forest resource provide for a sustainable yield of a broad range of forest products following silvicultural practices that are in keeping with ecosystem management principles. This will guarantee the continuing existence of the forest for future generations. On the Citrus and Croom Tracts, forest management practices will complement the primary uses of these tracts, which are management of the wildlife resources on Citrus and outdoor recreation and wildlife management on Croom. On the Richloam Tract, more emphasis is placed on management to produce forest products.

The State Forest is divided into compartments and stands for management purposes. Jumper Creek does not need a stand map since it is primarily a riverine swamp.

All forest management practices will be conducted on a stand basis following the stand description analysis and annual field visits by staff foresters. Forest inventory updates will be conducted each year on stands selected according to the statewide criteria in Chapter 6 of the State Forest Handbook. Total timber volumes for the forest will be determined using updated data, as well as growth and yield projections for stands, which have been previously inventoried. Timber harvesting on the Withlacoochee State Forest will be planned so that harvest levels do not exceed growth over the lifespan of this plan. Exceptions can be made to address forest health problems.

Forest management has changed as more emphasis now is placed on mimicking natural ecosystem processes and protecting rare biological communities, ecosystems, and species by considering the total ecosystem. The current plan manages sites based on their natural community types. The Division continues to promote natural regeneration as the method of choice for all forest stands for better ecosystem management and a cost savings to the taxpayer.

B. Description Of Natural Communities And Proposed Management Activities

The Withlacoochee State Forest contains a wide variety of natural communities. Over the course of the next five years the division will work towards better identifying and mapping these natural community types. The following is a list of management strategies that will be applied on WSF.

1. FOREST ECOSYSTEMS MANAGEMENT STRATEGIES

- **a.** Maintain ecosystem quality through the use of prescribed fire.
- **b.** Restore native pine species to ecosystems currently dominated by off-site species.
- **c.** Maintain a sustainable silviculture management program that enhances the natural diversity of the State forest with minimal environmental impact.
- **d.** Establish management criteria for sand pine stands that will allow for the natural cycle of scrub/sand pine communities.
- **e.** Restore sandhill communities utilizing established methods and methods developed through research.
- **f.** Maintain the forest over the long term through natural regeneration. Uneven-aged management of longleaf pine stands will be utilized to create a forest that exhibits old growth characteristics and that yields multiple ecological benefits.
- **g.** Improve, maintain and protect in perpetuity all native ecosystems.
- **h.** Insure the long-term viability of populations and species considered rare, endangered, threatened, or of special concern.
- **i.** Maintain and protect water quality and aquatic resources.

2. NATURAL COMMUNITY TYPE CONDITIONS

A. Mesic Flatwoods - (42,450 acres includes Scrubby Flatwoods and Included Wetlands)

DESIRED FUTURE CONDITION

Overstory- The overstory is characterized by even and uneven-aged stands of longleaf pine, and slash pine, with at least three age classes present. Large diameter trees are well represented in the stands with overall stocking in the twenty to one hundred square feet to the acre range. There is little or no stocking of species that are not considered flatwoods species, such as water oak, sweetgum, laurel oak, loblolly bay, and exotics.

Midstory- Presence of midstory shrubs and vines remain at a frequency and height that allows the formation and maintained health of continuous, species diverse, groundcover. It remains low enough and broken in nature so it will not support stand altering type wildfires. It also allows faunal species such as gopher tortoises, fox squirrels, deer, and humans the opportunity to freely move throughout the plant communities. Enough light passes through to allow shade intolerant species such as longleaf pine to regenerate.

Groundcover- The groundcover is continuous, species rich, and composed of fine herbaceous plants that will facilitate low intensity fires under a wide range of burning conditions. Preferred species are native grasses and herbs adapted to frequent fire such as wiregrass, lopsided Indian grass, blazing star, *Carphephorus* Florida paint brush), *Pityopsis* (silk grass), pine lily, etc.

Fauna- Healthy and sustainable populations of flatwoods animal species (of this latitude) are present throughout the flatwoods community. Indicator species such as Sherman's fox squirrels, Bachman's sparrows are present throughout. Red-cockaded woodpeckers (RCW) are not necessarily present but the habitat is capable of sustaining them.

Ecotones- There are natural ecotones between flatwoods and adjoining and embedded plant communities. The plant communities associated with the ecotones contain a higher diversity of plants and animals. Often these ecotones may be an entirely different plant community such as a mixed hardwood forest or wet prairie may exist surrounding a wetland. Ecotones remain elastic and continue to change in shape, location, and size depending upon environmental processes.

Processes- The condition of the flatwoods is process driven with the primary process being fire. Fire return interval is two to seven with the average being four years. Stem char, scorched needles and other visible features of fire-maintained ecosystems provide evidence of past fires. The occurrence of these fires is primarily during the growing season but burns may occur nearly any month of the year. Evidence of functional hydroperiods is seen in the flooding of wetlands and rivers. Ongoing biological processes such as insect-plant interactions are evidenced by occasional dead trees, which become snags for use by wildlife.

CURRENT CONDITION

The flatwoods plant community is the primary component of the Richloam and Baird Unit of the WSF. Embedded within these flatwoods areas are a complex mosaic of multiple plant communities described by FNAI as Mesic Flatwoods, Scrubby Flatwoods, Wet Flatwoods, Blackwater Stream (Withlacoochee River, Little Withlacoochee River), Floodplain Swamp, Bottomland Forest, Basin Marsh, Depression Marsh, Dome Swamp, Sinkhole Lake, and Marsh Lake. Accurate maps of these plant communities have not yet been created.

The vast majority of the flatwoods on Richloam and Baird are of the mesic type. Primary overstory types are planted and natural slash pine. There are also slash and longleaf pine mixtures of natural origin, and clearcuts as a result of recent pine beetle infestation. In addition to the pines, most stands also contain variable densities of overstory trees that may be of swamp or bottomland forest in origin. Midstory is also variable, but heights and frequencies of midstory species such as gallberry, waxmyrtle, palmetto, smilax, fetterbush and others is generally several feet tall and make the stands difficult for a person to penetrate. The groundcover is also variable. Most of the flatwoods in Baird have been bedded and the resulting groundcover is sparse, with little wiregrass or other natural flatwoods groundcover. In Richloam the groundcover is more diverse but in most cases fire history, historic site preparation technique, midstory densities, and overstory characteristics have led to a decrease in herbaceous groundcover and an increase in leaf litter.

Pine densities in many of the flatwoods stands have reached very high levels. These stocking levels can contribute to contiguous pine mortality when associated with other stress inducing factors including drought, insect infestation, prescribed fire, wildfire, mechanical and natural disturbance. In many areas duff accumulation has occurred allowing roots to enter thick surface fuels making the roots susceptible to drought or fire related damage.

Hydrological conditions in some areas, particularly in the Baird Unit, have been altered. This has brought about changes in plant communities as water levels have been manipulated. Generally, in these areas, there has been a shift from more hydric plant communities to more mesic or xeric communities. These conditions have been compounded by accumulations of organic material in wetlands.

MANAGEMENT ACTIONS TO ATTAIN TARGET CONDITION

Management will utilize prescribed fire, site preparation methods in reforestation, uneven age management of trees, hydrological restoration, and management of recreation. Prescribed fire will be the preferred tool for maintenance of the flatwoods plant community. A continued effort will be to maintain a two to seven year fire return interval with an average of four in all flatwood plant community areas. Of course, current tree stocking levels, smoke issues, duff accumulations, available personnel, and other

factors will all influence actual burn regime. Growing season burning will be used whenever possible to mimic natural fires. Firelines will avoid ecotones and prescribed fires will be encouraged to burn into wetland ecotones when sufficient hydration exists.

A protocol for determining duff accumulation, and the timing of prescribed fire will be implemented in order to begin burning blocks that have had extended fire absence, or otherwise have heavy fuel loading. More fire tolerant longleaf pine will be planted in preference to other species so the fire return interval will not be interrupted during periods of reforestation. Hardwood harvests may be used in areas where non-flatwoods tree species have invaded into flatwoods. Herbicides may be used in reforestation or restoration efforts when other alternatives are unavailable. Monitoring and control of all activities will be maintained to be certain that negative hydrological manipulations do not occur.

Plantations and natural stands will be thinned to promote individual tree health and forest health and improve ground cover conditions.

There will be continued cooperation with Florida Department of Environmental Protection to address hydrological issues on the Baird Unit and bring about some level of hydrological restoration.

Stand mapping will be a continuing effort in the flatwoods. Stand maps will continue to be developed as well as desired future condition maps. These maps will help to refine timber management as well as help define wetland inclusions and assist with management of all of the flatwoods and associated plant communities.

B. **Sandhill -** (62,953 acres)

DESIRED FUTURE CONDITION

Overstory- The overstory is characterized by uneven-aged stands of longleaf pine, with at least three age classes present. Large diameter trees are well represented in the stands with overall basal areas maintained in the twenty to eighty square feet to the acre range. Longleaf seedlings and clusters of saplings are evidence that natural regeneration is occurring. Scattered pockets of overstory oaks native to the sandhills (sand post oak, bluejack oak, turkey oak) will be present with variable densities. There will be little or no stocking of tree species not considered native to the sandhills (sand live oak, laurel oak, exotic species).

Groundcover- The groundcover is a species rich, grassy and herbaceous layer capable of carrying fire throughout most of the sandhill area under a wide variety of burn conditions. Typical grass species that are abundant are wiregrass, piney woods dropseed, and lopsided Indian grass. A large variety of herbaceous plants are also present such as blazing star, black root, queen's delight, rabbit bells, and wild buckwheat. The groundcover is generally continuous, except that occasional breaks occur particularly on ridge tops and in ecotones surrounding scrub.

Fauna- Healthy and sustainable populations of sandhill animal species are present throughout the sandhill community. Indicator species, such as gopher frog, Bachman's sparrow, red-cockaded woodpecker, hairy woodpecker, brown-headed nuthatch, Sherman's fox squirrel, gopher tortoise and Withlacoochee grasshoppers are present and can be located without unreasonable searching. Micro-habitats such as bare sandy patches and large pine trees contain associated appropriate fauna.

Ecotones- There are natural ecotones between the sandhill and other embedded and adjoining plant communities. Sandhill/scrub ecotones should be fairly abrupt and sandy, containing species such as *Ceratiola ericoides* (rosemary), *Garberia*, P*alafoxia* (Coastal plain palafox), and *Calamintha* (scarlet calamint). Embedded wetlands are variable and surrounded by hammock species or open grassy prairie vegetation. In all cases, ecotone locations are dynamic in nature and move as processes such as fire and drought dictate.

Processes- The condition of the sandhills is process driven with the primary process being fire with a return interval of two to seven years with the average being four years. Occasional stem char, scorched needles and other visible features of fire-maintained ecosystems provide evidence of fires. Evidence of functional hydroperiods is seen in the occasional flooding of isolated wetlands. Ongoing biological processes such as insect-plant interactions are evidenced by occasional dead trees, which become snags for use by wildlife.

CURRENT CONDITION

The sandhill plant community is the primary component of the Citrus, Croom, and Headquarters Tracts of the WSF. Embedded in the sandhills are occasional occurrences of other plant communities including scrubs, xeric hammocks, upland mixed forests, terrestrial caves, depression marshes sandhill upland lakes and sinkholes.

The sandhill plant community on the WSF is in a wide array of conditions ranging from that of pristine sandhill to improved pasture, or more commonly some condition between sandhill and xeric hammock or scrub. Generally the stocking of longleaf pine is relatively abundant, groundcover is mostly intact and species diversity is good. In areas such as north Citrus some natural scrubs exist, and scrub species such as sand pine, sand live oak, rosemary, myrtle oak and others have become established in the neighboring sandhill in high densities. Other areas contain high densities of hardwoods that are more appropriate to xeric hammocks, or upland mixed hardwood forests. For sandhill areas in the Headquarters Tract and the Croom Tract, hardwoods such as magnolia, sweet gum and laurel oak have invaded and become well established; as a result, the plant community now resembles mesic upland mixed forest. Some areas, particularly new acquisitions are improved Bahia pastures. Additionally, there are some areas that are undergoing biological restoration.

Finally some sandhill has been planted with slash pine or sand pine and still contains the offsite trees or the regeneration resulting from them. Often these stands have a somewhat sparse or species poor groundcover. Additional acreage has been invaded with invasive exotic plants, particularly cogon grass.

MANAGEMENT ACTIONS TO ATTAIN TARGET CONDITION

Management of the sandhills should begin with mapping the forest and determining where sandhill is the desired future condition. For the most part sandhill will be maintained, or considered the desired future condition, where it was historically present. A few locations, which were historically sandhill, may not be restored for various reasons, such as recreation, smoke issues, or need for overly costly restoration techniques. The desired future condition will be mapped as something other than sandhill.

Sandhill management will utilize prescribed fire, reforestation and related activities, uneven-aged silvicultural management of longleaf pine, occasional use of specific herbicides, and management of recreation and other forest uses. Prescribed fire will be the preferred tool for maintenance of the sandhill plant community. A continued effort will be to maintain at least a four-year fire return interval to all sandhill plant community areas. However, current tree stocking levels, smoke issues, duff accumulations, and other factors will all influence the actual burn regime. Growing season burning will be used in preference to dormant season burning whenever possible to mimic natural lightning fires. A protocol for

determining duff accumulation and the timing of prescribed fire will be implemented in order to begin burning blocks that have had extended fire absence, or otherwise have heavy fuel loading. Monitoring and control of recreational activities will be maintained to limit or control negative hydrological manipulations, manipulations of ecotones, disruption of processes, negative impacts on fauna, or long term destruction to groundcover.

Thinning of stands will in some cases be required to maintain the uneven-aged characteristics and to improve sites for the health of the longleaf pine sandhill ecosystem. In sandhill areas where basal areas exceed 70 ft^2/acre stands may be thinned to 40 ft^2/acre. Plans will be developed during this five-year period to achieve this while maintaining the necessary foraging habitat and recruitment sites for RCW clusters, the quality of the understory community, and the uneven-aged stand characteristics.

Various options for restoring plantations of off-site species in sandhills will be pursued. In some cases the ground cover has been negatively impacted by site preparation techniques and many years of a dense tree canopy. Roller chopping will not be used on sandhills in favor of site prep and reforestation methods that are less destructive to the ground cover plants necessary to sustain prescribed fires. Mechanical site preparation and herbicides will be used only when absolutely necessary in those instances where fire fails to reduce competition long enough to assure the survival of planted pines, or groundcover. Every effort will be made to protect natural longleaf pine regeneration during restoration to promote uneven-aged management, and to facilitate burning using needle cast. Burning, leaving less slash on the ground, hand planting tubelings, using a root rake to pile and burn slash with little soil disturbance, and machine planting with a rough-woods planter will be practices that allow planting without heavy mechanical site preparation. Hardwood control is achieved through regular prescribed fires, which also serve to inhibit brown-spot needle blight.

In certain parts of the Forest, hardwoods have reached a size and dominance that fire can no longer be expected to control them. In such areas hardwood harvesting, or felling may be encouraged. Control of these hardwoods will also be accomplished, as funding and personnel permit, through chemical applications of ecologically acceptable herbicides.

The sandhill communities of WSF contain numerous sandhill upland lakes. These seasonal wetlands may provide significant habitat for breeding amphibians as well as nesting areas for wood ducks. To maintain the desired biological condition of this resource the Division will utilize prescribed fire or other treatments as appropriate to reduce encroaching herbaceous/hardwood vegetation. In areas of extensive eutrophication, that may be beyond the use of prescribed fire, mechanical means of restoration such as mowing and muck removal may be utilized.

Finally, there will be some species specific management of certain species whose rarity or other characteristics warrant special consideration.

MONITORING

A monitoring protocol to collect baseline data is currently being established in the Sugarmill Woods Parcel, which is primarily sandhill. Once developed, this method of monitoring ground cover characteristics, floral and faunal populations, tree stocking information, exotic plant status and other pertinent data, will be used forest-wide to verify that communities are moving toward the future desired condition.

C. SCRUB - (650 Acres)

DESIRED FUTURE CONDITION

Scrub is characterized as a closed to open canopy forest of woody species of shrubs with a sparse understory of herbaceous plants, and lichens. Open patches of bare sand are common. Typical plants include sand live oak, *Lyonia*, chapman's oak, myrtle oak, rosemary, saw palmetto, hog plum, milk peas, *Garberia*, *Palafoxia*, and *Calamintha*. Sand pine may, or may not be present. The canopy remains relatively low with a height of one to nine feet. A disturbance regime of fire keeps the canopy height low and arrests succession, not allowing the transformation into mixed hardwood forest (xeric hammock).

Ecotones- Scrub ecotones are mostly bare sandy clearings that separate the scrubs from the sandhills. They apparently act as firebreaks to limit fire frequency within the scrub from the excess frequency of the surrounding sandhill. These ecotones contain *Calamintha*, and *Garberia* and may be the only place where these plants are present. They may also provide good habitat for certain species of invertebrates, and other animals that like open sandy areas.

Fauna

There is an assortment of scrub species present in the scrub, although the scrub on the Brooksville Ridge apparently does not contain all of the rare endemic animals that inhabit the Lake Wales Ridge. Florida mouse, gopher tortoise, peninsula mole skinks are present in the scrubs and to a lesser degree, the adjoining sandhills.

CURRENT CONDITION

Scrub is a less prevalent plant community in WSF and is limited to approximately 650 acres in the Citrus Tract in five isolated areas, one small spot in the Croom Tract, and another in the Two-Mile Prairie Tract. There are also areas in the Citrus Tract that have been planted with sand pine that have taken on characteristics of scrub; future management of these areas as scrub may be appropriate. Along the Withlacoochee River there are small scrubs in the P.K. Smith Tract and one in the Richloam Tract near Lacoochee.

The ecological condition of these scrub areas is variable. The Two-Mile Prairie scrub has recently been mechanically treated to bring down the height of the overstory in a scrub restoration project. Most of the other scrub areas have begun to succeed into mixed hardwood forest due to an absence of disturbance. In these cases xeric hammock species such as pignut hickory and laurel oak have reached tree proportions and many scrub species have become almost nonexistent. In most scrub areas, the scrub vegetation has invaded into neighboring sandhill, blurring the distinction of these two plant communities and increasing the size of the scrub ecotone. In the Citrus Tract where sand pine scrub has invaded into the sandhill, the sand pine was recently harvested, leaving behind a mixed scrub sandhill combination.

New scrub- There are areas of the Citrus and Croom Tracts where sand pine was planted and allowed to shade out most of the sandhill groundcover. Now sand pine and sand live oak are dominant and sandhill groundcover is mostly absent. If these areas are considered too costly to restore to sandhill, these may be managed as scrub with desired future condition to be listed as scrub.

MANAGEMENT ACTIONS TO ATTAIN DESIRED CONDITION

Management will utilize prescribed burning or another method of disturbance (with similar effects), even-age management of sand pine in small blocks, scrub species planting, and management of recreation. Burning will be attempted in all scrubs within the next five years and be done on approximately a ten-year fire return interval. In instances where a burning can't be done, then chopping or some type of mowing will be used to simulate prescribed burning. In sand pine areas, harvesting in tandem with chopping or burning may be used. Careful treatment of the ecotone should be exercised with prescribed burning,

recreation, and other uses. Recreational trails and other forest uses should be monitored to observe if any activities are affecting the ecotones of the scrubs and these uses should be managed appropriately. After burning, or other disturbance, there should be monitoring to determine if rare endemic plants and animals are present in scrub areas.

The largest scrub in the Citrus Tract contains sand pine. In this area the sand pine should be managed in a mosaic pattern where blocks of trees are allowed to reach merchantable size but the majority of the area conforms to the scrub jay maximum height criteria of about nine feet.

Currently the best criterion for judging the quality of management and condition of a scrub is the propensity to maintain the Florida scrub jay. The scrub jay is currently absent from the WSF but the majority of current information about scrub seems to indicate that the Florida scrub jay is the best indicator of scrub health. At this time we will use scrub jay management guidelines to fine-tune management.

D. <u>Strand Swamp and Dome Swamp</u>- (49,849 acres)

DESIRED FUTURE CONDITION

The condition of the dome and strand swamp is variable depending on size, topography, water source, fire frequency etc. In general they are dominated by cypress (pond and bald) with variable frequencies of other trees including black gum, water tupelo, southern red cedar, cabbage palm, slash pines, laurel oak, willow, and bay. Generally larger cypress exists in the most central or deepest portions of the wetlands with smaller cypress and species less tolerant of inundation toward the periphery. The surface soils and groundcover ranges from bare sand to some thickness of peat, duff and leaf litter. There is also the presence of certain orchids (epiphytic and ground dwelling), insectivorous plants (bladderworts and sundews), and mosses. The periphery of these wetlands is often rimmed with an ecotone of wetland grasses that may be classified as wet prairie.

The processes that most affect dome and strand swamps are fire and flooding. There is a complex interrelationship between these two processes that affects floral characteristics, fuel loading, and all other plant distributions.

The vegetation of the wetlands is in continuous movement when looked at over a long period of time with the lines delineating the swamp, wet prairie and flatwood advancing and receding as forces of hydrology and fire affect the area over time. Therefore the specific desired future condition for each swamp cannot necessarily be fixed and remains a moving target.

CURRENT CONDITION

The strand swamp and dome swamp plant communities are a primary component of the Richloam and Baird Unit of the WSF with a small number occurring in the Croom Tract and an unknown number occurring in the Jumper Creek Tract. They are primarily located within the flatwoods strata in a complex mosaic of multiple plant communities described by FNAI as Mesic Flatwoods, Scrubby Flatwoods, Wet

Flatwoods, Blackwater Stream (Withlacoochee River, Little Withlacoochee River), Floodplain Swamp, Bottomland Forest, Basin Marsh, Depression Marsh, Sinkhole Lake, and Marsh Lake. Accurate maps of these plant communities have not yet been created.

The vast majorities of the dome and strand swamps on Richloam and Baird Unit have sustained variable amounts of human hydrological interference and disturbance and have been altered in varying amounts.

In the Baird Unit significant hydrological alterations have been made which have altered this tracts hydro periods. The majority of the area has been manipulated by some form of drainage alteration including ditching, diking (usually with roads) or bedding. In many cases these changes have shifted wetland plant communities in the direction of flatwoods and mixed hardwood forests. In Richloam many have been altered from historic conditions with firelines that partially, or completely surround them with varying levels of change to natural land contour, water drainage, and ecotone vegetation.

In addition the natural fire regime has been altered. The decreased burn frequency and timing (usually favoring wetter periods of time when these low-lying areas are too inundated to burn) has resulted in the accumulation of peat, muck, duff, and litter that contributes to the transformation of the dome and strand swamps into bottomland forest or flatwoods as species invade into new "soil". Additionally, non-wooded wetlands such as depression marshes in Richloam and Baird have been transitioning into wooded wetlands and now resemble dome and strand swamps, or something in between. Peat and duff accumulations have become thick in some cases and have allowed pine roots to enter surface fuels along the edges. This has led to pine mortality issues during prescribed burning around the margins of these wetlands when organic fuel was consumed by fire, exposing and damaging roots.

Harvesting of certain species including cypress, red cedar, and cabbage palm have changed plant frequencies and sizes. In the case of the cabbage palm and the red cedar, harvesting in the past may explain its' absence (or low frequency) from areas that appear to be good habitat.

General Trend

Past fire management practices excluded fire from certain wetland areas in the flatwoods shifting the balance to the right of the matrix below. Current fire practices are now beginning to shift the balance back to the left, restoring these ecosystems.

Wet prairie → Strand and Dome Swamp → Mixed hardwood forest/ flatwoods → Mixed hardwood forest

MANAGEMENT ACTIONS TO ATTAIN TARGET CONDITION

Management techniques of dome and strand swamps will include prescribed burning, hydrological restoration, silvicultural practices to lessen conflict between pine management in the flatwoods and swamp management, and recreation management to minimize negative hydrological impacts.

Prescribed Fire

Reaching the desired future condition on these in the swamps and other depression wetland areas will probably require more resolve and involve more criticism than the restoration of other plant communities. Wetlands may be the most challenging to burn due to the potential smoke issues when ground fuel ignites, and kills trees that have taken root in the organic soils. Fire frequencies vary widely but should occur at a frequency to favor cypress over hardwoods and decrease the accumulation of organic material. This frequency may be in the order of every twenty years.

The methodology to be used will be to burn adjoining plant communities in such a manner as to include the wetlands and not use them to contain the burn. Burn blocks should be contained by roads or other features and be allowed to burn through the wetlands in a natural fashion. Burning should be done during

a variety of seasons and weather fluctuations. This will allow fire to enter the wetlands sometimes and other times it won't. This type of burning will allow natural plant communities to fluctuate, and preserve wetlands, and wetland ecotones in all states. It will allow the wetlands to more naturally sort out their ideal condition. In some cases historic photos and other evidence such as the presence or absence of stumps and indicator species may help the land manager to determine specific desired future condition of individual wetlands and they may specify burn objectives to move the land toward that condition.

Hydrological Restoration
The hydrology of Baird will be restored to a more historic condition using DEP information and funding that is already being planned. This will lead to an improved hydrological condition. Uses of wetlands for firebreaks with construction of firelines along the perimeter will be limited or discontinued in prescribe burning, and limited (when possible) during wildfire.

Monitoring
Management of these areas should be performed in terms of maintaining the main processes. The condition of the wetlands should be to monitored to determine that a mixture of healthy wetland conditions exist in the Richloam and Baird Units. A monitoring protocol that considers flora and fauna and overall wetland diversity will be developed. Improved mapping will also be performed.

VI. MANAGEMENT NEEDS, PRIORITIES AND COSTS

The current annual budget (2001/02) for the Withlacoochee Forestry Center/Withlacoochee State Forest is $900,000, it is estimated that 75 % is applied to state forest management however, annual appropriations change. Following is a breakdown of the funds appropriated for state forest management. This amount includes salaries, expense, and operating capital outlay and is broken down as follows:

Reforestation $250,000
Expense (general operating costs for fuel, supplies, parts, etc.)(Includes CARL) $900,000
Operating Capitol Outlay (includes CARL) $89,500
Other Personal Services (OPS)(Including CARL OPS) $100,000

Twelve people are currently assigned to the Withlacoochee State Forest Resource Section; they include a: Resource Administrator, Accountant I, 2-Forestry Supervisor II's, 2-Senior Foresters, 2-Foresters, Biological Scientist II, 3-Park Rangers.

CARL Lands managed by the WSF are supervised by personnel, which work in the different Forest Areas. Currently five positions are assigned to the various tracts/units of the WSF CARL lands they include: 2-Senior Foresters, 2-CARL Senior Rangers, and a Park Ranger.

The Operations Section of the Withlacoochee Forestry Center administers the recreation program on the WSF. Twelve people are currently assigned to the recreation program on the Withlacoochee State Forest they include: Operations Administrator, 2-Forest Area Supervisors, 2-Forestry Supervisor II's, Operations Management Consultant, 5-Park Rangers, and a Gate House attendant.

The Division's Forest Rangers as well as the Withlacoochee Forestry Center Maintenance Section provide additional support.

A priority schedule for conducting management activities and the average or estimated costs is listed below. The Division will conduct the majority of management operations, although appropriate activities will be contracted to private sector vendors. All activities will enhance the property's natural resource or public recreational value.

A. Activities

1.) Prescribed Burning – Priority High

The maintenance of an aggressive prescribed burning program is necessary to enhance and maintain the longleaf pine/wiregrass ecosystem. A yearly-prescribed burning plan will be prepared detailing target stands, timing, and acreage goals. Drought, hurricanes and other factors have caused a decline in acres prescribed burned in the last few years. It will be critical to the success of the longleaf pine /wiregrass management program to maintain a 2 to 7 year burn with the average rotation being four years. The use of helicopters, and the possible creation of a regional burn team, should provide the additional resources to meet this need. WSF overall goal for the forest is to burn an average of 30,000 acres per year.

Schedule: Annual/Ongoing
Estimated Costs: $180,000 per year

2.) Ecosystem Restoration/reforestation – Priority High

The restoration of off-site slash pine plantations to longleaf pine will be a continued priority. It is estimated this process will take in excess of ten years to complete. Longleaf pine stands that have been heavily encroached by hardwoods will be restored using a variety of methods, where appropriate, including prescribed fire, mechanical removal and herbicide control.

Another top priority will be the reforestation of approximately 5,000+ acres of insect and wildfire killed timber. Various site preparation techniques will be utilized including chopping, prescribed burning, and possible chemical application to control competing hardwoods.

Schedule: Annual/Ongoing
Estimated Costs: $340,000 per year

3.) Forest Inventory – Priority High

Forest inventory (stand description) will be updated on an annual basis to provide accurate data on the forest resource at Withlacoochee.

Schedule: Annual/Ongoing
Estimated Cost: $50,000 per year

4.) Erosion and Sedimentation – Priority High

Erosion and sedimentation from roads, gullies and primitive recreation areas is an ongoing problem. A comprehensive assessment will be completed, during this planning period, to locate and prioritize problem areas and provide a systematic approach to treating these areas. Funding is also needed to provide for the timely treatment and stabilization of eroding sites.

Schedule: Annual/Ongoing
Estimated Costs: Variable

5.) Personnel-Priority Medium

Withlacoochee's approach to the management of the forest is to manage the total ecosystem. Numerous threatened or endangered species are known to occur in WSF's longleaf pine/wiregrass ecosystem. To monitor these species individually and cope with the growing recreational demands, WSF would require additional personnel and equipment for the resource, operations and maintenance sections as well as the Office of Agricultural Law Enforcement.

2-FTE Foresters
4-FTE Forest Rangers
1-FTE CARL Work Crew Leader

1-FTE CARL Biologist
2-FTE Park Rangers
1-FTE Senior Clerk
2-FTE Law Enforcement

Schedule: Annual/Ongoing
Estimated Costs: $310,00 per year

6.) Recreation Improvements – Priority High

On lands that are newly acquired, the recreation plan will call for minimal facilities such as unpaved parking lots, trail heads, hiking trails, off road biking trails, horse trails, primitive camps and possibly, self-contained restrooms. Where developed recreation areas exist, facilities and roads will be upgraded to provide better service to the public while protecting the resources. Handicapped accessible facilities will be a high priority at heavier utilized recreational areas.

Schedule: Annual/Ongoing
Estimated Cost: $196,000

7.) Surveys-Priority Medium

Boundary line surveys continue to be a high priority. There are numerous property line disputes and encroachments. Hundreds of miles of un-surveyed lines exist on the forest. Significant survey work is needed to accurately establish these lines.

An assessment of the need for additional archaeological as well as biological surveys and or site protection activities would benefit the management of the Withlacoochee State Forest.

Schedule: Annual/Ongoing
Estimated Costs: Unknown

8.) Roads-Priority High

Road maintenance, repair and upgrade is a high priority for the Staff on the WSF. Currently a very detailed road inventory and mapping is being conducted on the forest. This project, in terms of mapping, is 90% complete. To adequately maintain roads for access by various forest users, and address ever changing needs, more money and positions will be needed.

Schedule: Annual/Ongoing
Estimated Costs: $100,000

VII. Impact Assessment

1. . Silviculture management will be implemented and monitored to ensure a continuing renewable resource and diverse ecological resources for an indefinite time period without adverse impacts to the natural ecosystems.

2. Recreational uses will be monitored to evaluate impacts on the natural systems. Modification to recreational uses will be implemented, should significant negative impact be identified.

3. Historical/Archaeological - In the event of any significant ground disturbing activity, DHR will be contacted for review and comment. The Division will then follow given management procedures and will comply with all appropriate provisions of Florida Statutes §267.061(2).

4. Hydrological resources will be protected through the use of Florida's "Silvicultural Best Management Practices" and/or other appropriate measures as deemed necessary by the Division's Forest Hydrologist and/or Watershed Specialist.

5. Wildlife resources, both game and non-game species, will be protected through ecosystem management techniques coordinated between the Division and FWC.

VIII. MANAGEMENT SUMMARY

A. Potential Use Of Private Land Managers

The forest manager makes ongoing evaluations for the use of private land managers, consultants, and contractors to facilitate the restoration or management of the state forest. Opportunities for such outsourcing of land management work have included or are anticipated to include:

1. Site preparation-Private equipment/forestry operations companies are hired routinely to site-prepare land slated for restoration/reforestation needs.

2. Tree planting-private equipment/forestry operations companies have been hired to machine plant, hand plant, bareroot and tubelings seedlings on lands managed by the Division.

3. Biological assessments- FNAI has been contacted to help survey lands within the Withlacoochee State Forest surveying for listed species.

4. Archaeological/Historical-private archeological companies have been utilized by the Withlacoochee State Forest in order to give the local land manager a better understanding of know historical sites and the potential for discovering multiple new sites.

B. Conformation Of State Lands Management Plan

Management of the forest under the multiple-use concept, utilizing ecosystem management principles, complies with the State Lands Management Plan and provides optimum balanced public utilization of the property.

Specific authority for the Division of Forestry's management of public lands is derived from Florida Statutes, Chapters 253 and 589.

C. Plans To Locate Fragile, Nonrenewable Natural And Cultural Resources

The Division or any other public agency will consult representatives of DHR and FNAI prior to the initiation of any ground disturbing activity. The Division will make every effort to protect known archaeological and historical resources. Ground disturbing activities not specifically covered by this plan will be conducted under the parameters of the "List of ARC/Division of State Lands Approved Interim Management Activities."

The Division will arrange for State forest personnel to attend a DHR Archaeological Monitor Training class. Currently the Withlacoochee State Forest has one employee that has been trained by DHR. Trained monitors will oversee ground disturbing activities in which DHR recommends monitoring. The Division will utilize the services of the DHR CARL archaeologist to locate and evaluate unknown resources, and to make recommendations in the management of known resources. As information becomes available, and as staffing allows, known archaeological and historical sites will be identified on maps to aid tate forest and law enforcement personnel in patrolling and protecting sites.

As mentioned above, all significant ground disturbing projects that are not specifically identified in an approved management plan will be sent to DHR for review. Recommendations outlined in the

"Management Procedures for Archaeological and Historical Sites and Properties on State Owned or Controlled Lands" will be followed whenever and wherever appropriate.

Division staff or others will conduct applicable surveys during the process of planning and implementing ecosystem management activities. The Division and other assisting agencies will remain alert for any environmentally or archaeologically significant resources, and protective actions will be taken as necessary.

Exhibit A

Withlacoochee State Forest
Environmental Analysis Form

Headquarters Tract 02 Mowing Project

Prepared By: Keith Mousel

Date Posted: March 11, 2002 **Ending Date: March 25, 2002**

Location: Headquarters Tract, project area is located east of 41 adjacent to the entrance to the Center for Wildland Fire and Resource Management Training. See map.

Section 17, Township 21, Range 20

Acres: 95 Acres

Stand History
This area was originally a mixed hardwood pine component. Primarily composed of laurel and water oaks with a component of longleaf pine. In 2000 this area was harvested using a whole tree chipping operation in conjunction with a pine tree harvest associated with a Southern Pine Beetle spot. This stand had a long history of fire exclusion allowing the hardwoods to slowly encroach and in habit the site. Ground cover in the area was degraded and regeneration of longleaf pine had not been occurring.

Soils
The soils found in this stand are Candler fine sand 0 to 5 percent slope, Flemington fine sand 0 to 5 percent slope, and Arr4edondo fine sand 0 to 5 percent slope. The Candler and Arredondo soils are droughty with low fertility. The Arredondo has some moisture holding capacity and occasionally has a perched water table due to decreased drainage. The Flemington soils may contain a perched water table and drain poorly. These soil types typically occur in longleaf, turkey oak sandhills with a potential for small isolated wetlands and mixed hardwood forests.

Understory and Midstory Vegetation: The sparse understory is composed of sandhill and weedy plants including annual grasses, dog fennel, grape, *Carphephorus*, blazing star, some legumes and passion vine. Midstory is composed of various oaks (mostly laurel) beauty berry, and some scattered sand pine.

Objective:
The objective is to reduce the height of the coppicing hardwoods (current height five to 7 feet) before the stand becomes too overgrown for the use of prescribed fire. Ideally the mowing of the sprouts will help provide for a better distribution of fuel in the fuel bed allowing for a more successful prescribed burn. Mowing will also lower the height of the flame lowering intensity and causing less stress to the remaining pines.

A contractor or Division employees utilizing a brown tree cutter and farm tractor to do the work will conduct mowing of the site. All resprouting hardwoods and trees smaller than four inches in diameter will be affected.

Adjacent Impacts:
This project adjoins US. 41 on the east side and will have a visible impact from the road. The hardwood harvest in 2000 had the largest impact opening the area adjacent to the road. The mowing is intended to keep the vista open until such time that fire can be reintroduced into this stand.

Monitoring Plan:
The area has photo plots established in the stand. This area is currently highly visible and some form of informal monitoring will always take place. The area will be visually inspected upon completion of the project as well as a third set of photos taken of the stand to make sure the objectives of the project were met.

Attach Map: See attached map.

DISCUSSION POINTS TO CONSIDER

What are the benefits of this project? Look at the multiple use concept and list benefits.

Environmental: Benefits will be to restore the area to a longleaf pine wire grass community type by utilizing the hardwood harvest, mowing the coppicing hardwoods and the reintroduction of fire to the stand when appropriate.

Recreational: This area will provide a scenic vista to travelers on US. 41. Giving them the opportunity to view the rolling terrain as well as wildlife that may frequent the area.

Wildlife: Wildlife has benefited from the additional browse created by the harvest, Butterflies were abundant on the passion vine the mowing should continue to support these species as well as offering another site for bugging spots for young turkeys.

Issues to address:

Location of RCW's	**Vince Morris** VM	**Road Access, Needs**	**Tom Willis** TW
Wildlife Issues	**Colleen/Vince** VM	**Plant Issues**	**Colleen** CW
Cultural Sites	**Collen** CW	**Recreation Issues**	**Lynne Bolton** LB
Exotic Species	**Colleen** CW	**Site Prep**	**Gina/Jerry N/A**
Old Growth Status	**Jerry/Gina N/A**	**Reforestation Goals**	**Gina/Jerry/Vince N/A**
Burn Schedule	**Vince N/A**		

What are we overlooking? Have all issues been answered and addressed adequately. If yes proceed. If no take another look at the process and revamp the idea.

Environmental Analysis Checklist. (YES/NO)

Yes Have all key players been advised by email of posting? Date Notified 3/11/02.

Yes Have all sections replied by ending date?

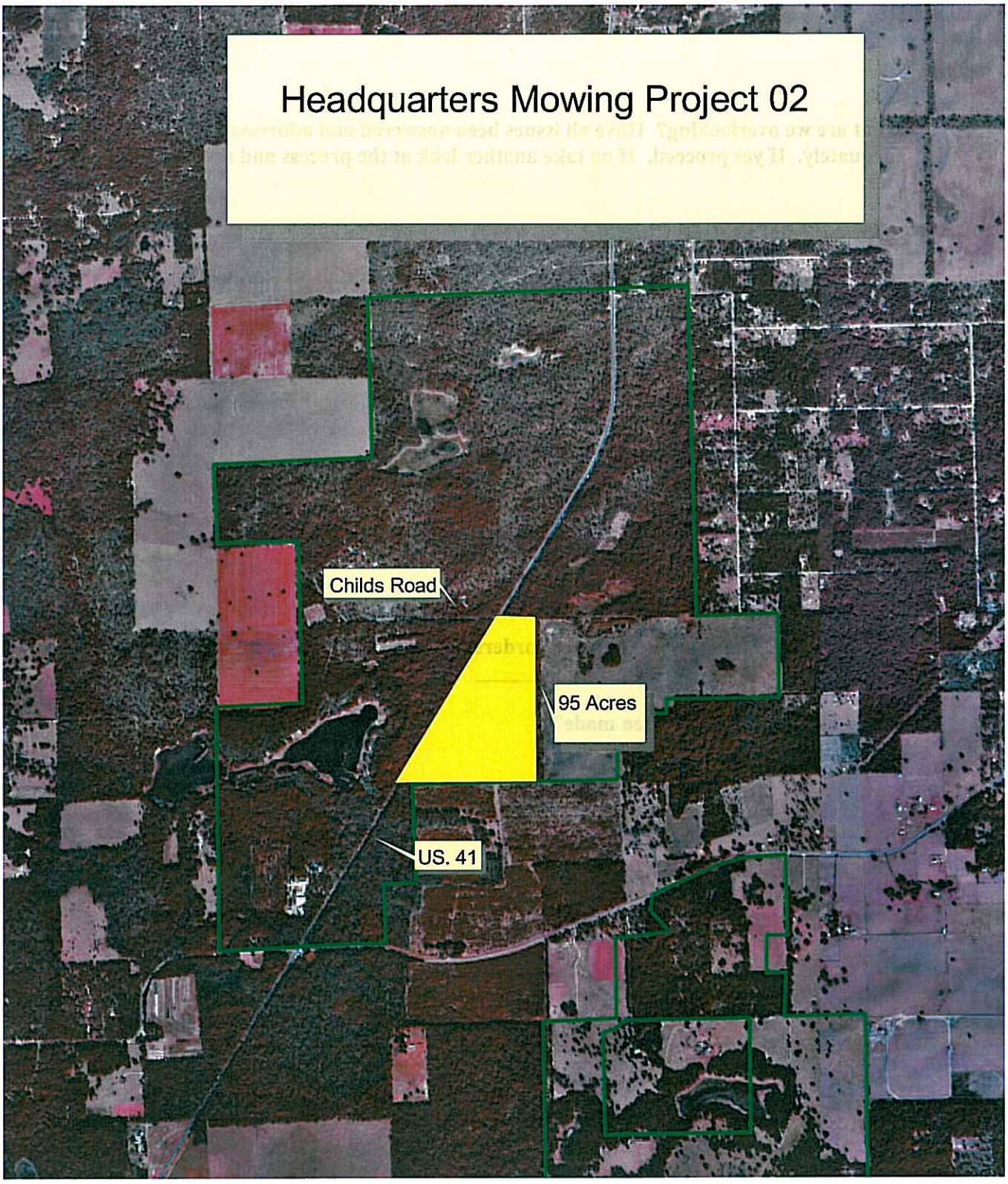
Yes Is there a need to notify the media?
If yes who will do it? Keith Mousel

Yes Have road issues been addressed?
If no see Tom Willis.

Yes Have rec. issues been notified?
If no see Lynne Bolton.

_No_ Are there residences along our borders that need to be informed of our activities?
If yes who will do it?_____

_No_ Have alternatives been made?
If yes list alternatives.


Headquarters Mowing Project 02
Childs Road
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US. 41
Mow area.shp
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Exhibit B

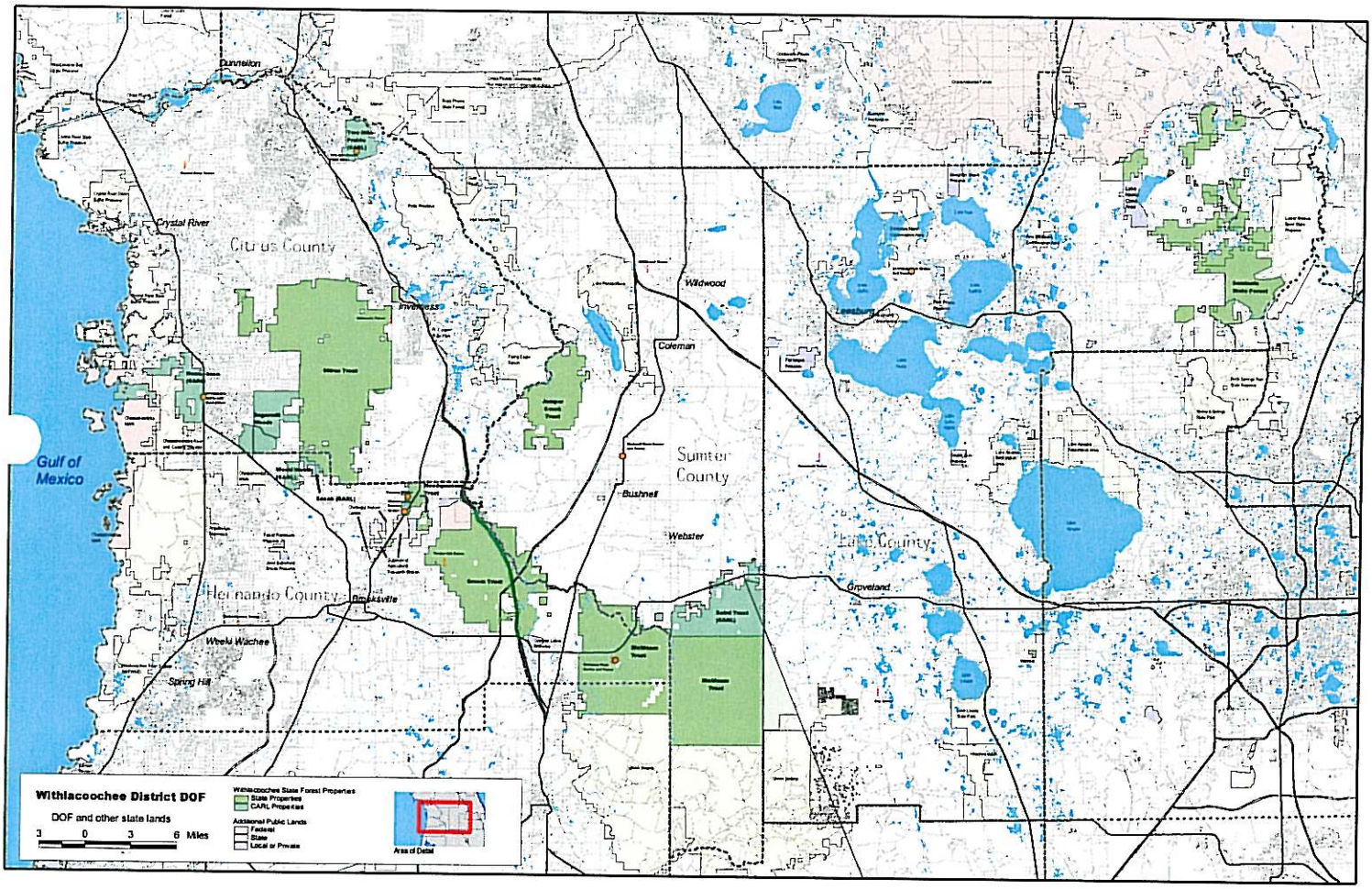
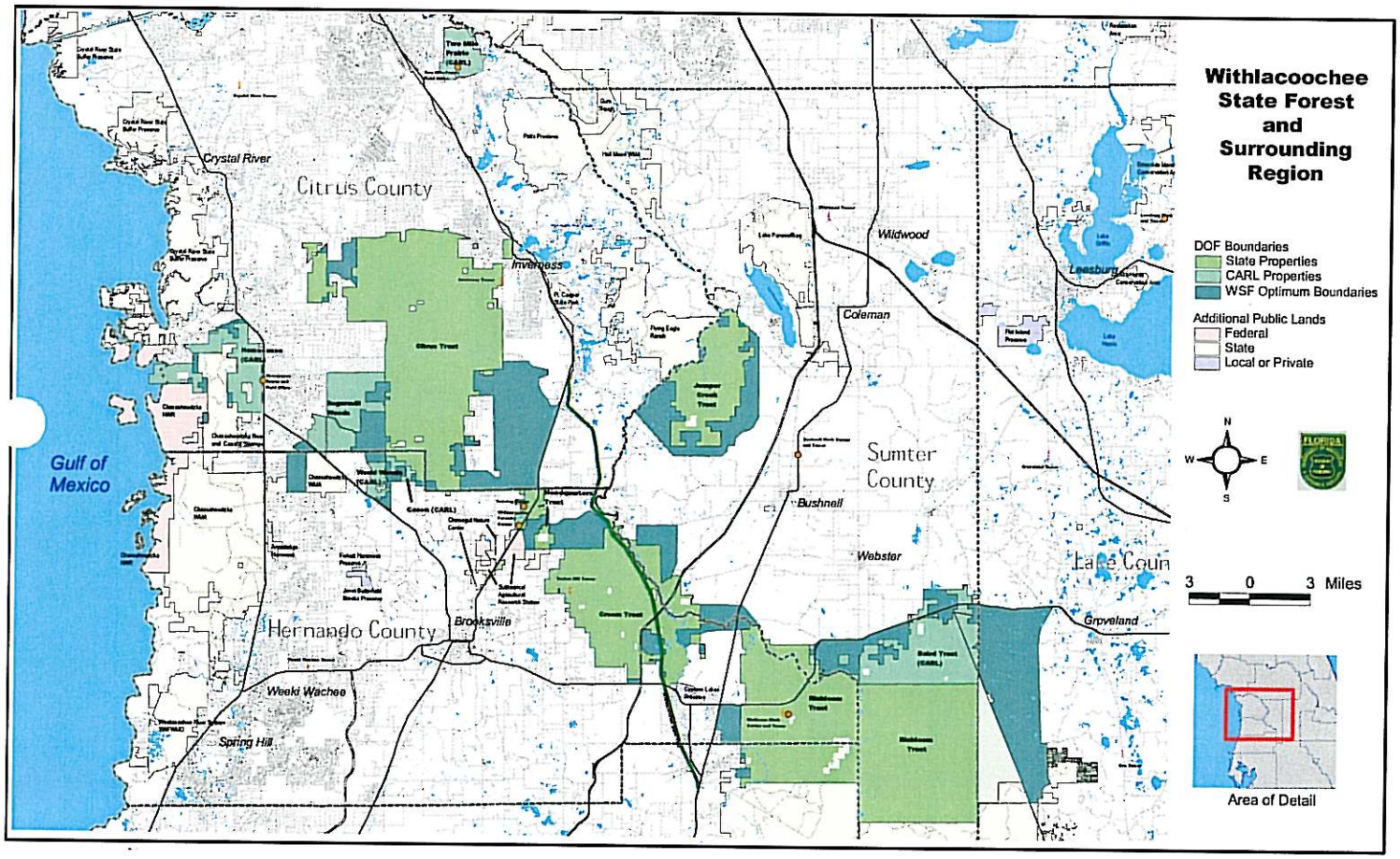

Withlacoochee District DOF
DOF and other state lands
3 0 3 6 Miles
Withlacoochee State Forest Properties
State Properties
CARL Properties
Adjacent Public Lands
Federal
State
Local or Private
Area of Detail
Gulf of Mexico
Citrus County
Hernando County
Sumter County
Lake County
Crystal River
Inverness
Brooksville
Weeki Wachee
Spring Hill
Bushnell
Coleman
Wildwood
Webster
Leesburg
Groveland
Sumterville

Exhibit C


Withlacoochee State Forest and Surrounding Region
DOF Boundaries
State Properties
CARL Properties
WSF Optimum Boundaries
Additional Public Lands
Federal
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Local or Private
N
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Area of Detail
Gulf of Mexico
Crystal River
Citrus County
Inverness
Wildwood
Leesburg
Coleman
Sumter County
Bushnell
Webster
Hernando County
Brooksville
Weeki Wachee
Spring Hill
Groveland

Exhibit D

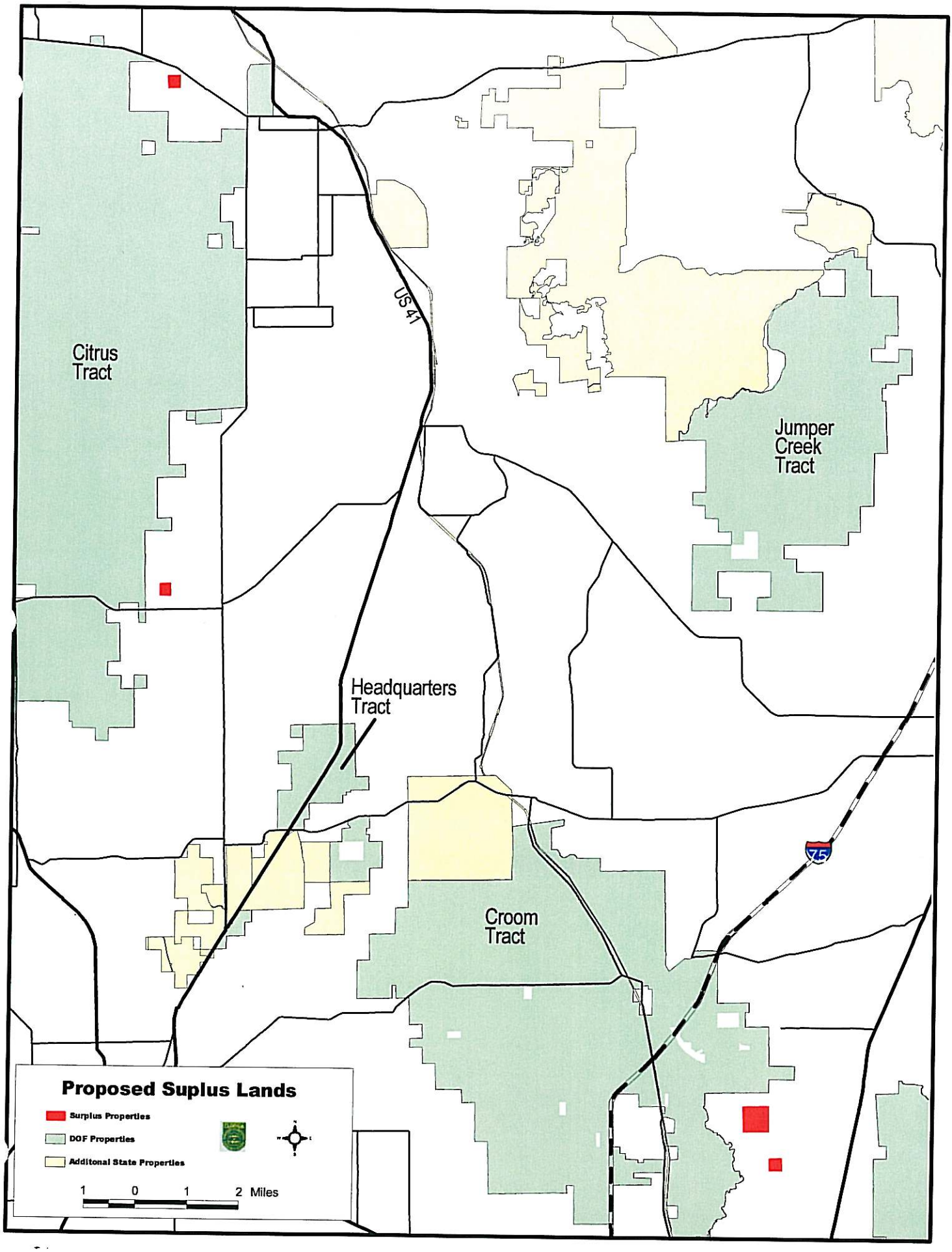
Citrus Tract
US 41
Jumper Creek Tract
Headquarters Tract
Croom Tract
75
Proposed Suplus Lands
Surplus Properties
DOF Properties
Additonal State Properties
1 0 1 2 Miles

Exhibit E

SPECIAL USE PERMIT

Between the

DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
DIVISION OF FORESTRY

and the

FLORIDA GAME AND FRESH WATER FISH COMMISSION

WHEREAS, the United States of America, acting by and through the Assistant Secretary of Agriculture, hereunto duly authorized by Subsection (c), Section 32, Title III of the Bankhead-Jones Farm Tenant Act (50 Stat. 522-525), as amended July 28, 1942 (56 Stat. 725), has entered into an agreement of sale with the Florida Board of Forestry, State of Florida, for all of those tracts or parcels of lands embraced within the Withlacoochee Land Utilization Project, FL-LU-3, lying and being in the Counties of Citrus, Hernando, Sumter, and Pasco, State of Florida, and,

WHEREAS, the Florida Board of Forestry entered into a "Property Management Plan Agreement", concerning the Withlacoochee State Forest, with the United States Department of Agriculture, Forest Service, an agency of the United States Government, under which the Florida Board of Forestry had the right to grant Easements in said forest subject to review and approval of the United State Department of Agriculture, Forest Service, and,

WHEREAS, the Commissioner of Agriculture is Executive Officer of the Department of Agriculture and Consumer Services with offices in Tallahassee, Leon County, Florida, and under the authority of Chapter 69-106, Laws of Florida, has assumed the duties of the Florida Board of Forestry.

NOW THEREFORE, be it resoved by the Florida Department of Agriculture and Consumer Services, Division of Forestry, hereafter referred to as the Division, and the Florida Game and Fresh Water Fish Commission, hereafter referred to as the Commission, that they do mutually and jointly agree as follows:

1. The Division, after consultation with the Commission, will designate areas to be opened to hunting on an annual basis.

2. The Division or its agents shall have at all times the right of ingress or egress to these lands for program purposes.

3. The Division will be responsible for performing all of the maintenance and upkeep of the roads, fences, and all physical improvements as funds permit. The exception to this is that the Commission may provide and maintain check stations during hunting seasons if it desires to do so and if funds are available. The

Division and the Commission will be jointly responsible for wildlife habitat improvement according to mutually agreeable annual work plans and a ten year management plan.

4. The Commission will act as a consultant to the Division in wildlife habitat improvement, or the utilization of wildlife or fish by the public. The Commission will prepare a suggested annual work plan and submit it to the Division by May of each year for the fiscal year that begins on July 1 of that year.

5. The Commission shall not sublease any rights and privileges on these lands without advance written consent by the Division.

6. The Commission shall have all signs approved by the Division prior to erection or posting of such signs.

7. The Commission will submit proposed hunting and fishing rules and regulations for the lands to the Division for review each year prior to the official adoption of said rules and regulations. Rules and regulations affecting public use of physical facilities should be subject to Division approval.

8. The Commission will provide adequate law enforcement personnel to enforce the game laws on these lands, and take all reasonable measures to provide security against property damage and unauthorized uses.

9. The Commission shall be entitled to all proceeds derived from the sale of licenses or permits for hunting.

10. The Commission shall defend, hold and save the Division harmless from any and all liability or claims that may result from injuries to persons or damage to property arising out of use of the property by the Commission, for the purposes stated herein, to the extent allowed by Chapter 768.28, Florida Statutes.

11. Any inequities that may subsequently appear in this permit shall be subject to negotiation upon written request of either party hereto.

12. This permit supersedes the Memorandum of Understanding of December 12, 1968, between the Division, then represented by the Florida Board of Forestry, and the Commission.

13. The Division or the Commission shall have the right to terminate this agreement at any time upon 60 days notification prior to February 1 of any year, providing such notification is in writing from the Commissioner of the Department of Agriculture and Consumer Services or the Executive Director of the Game and Fresh Water Fish Commission. If notification is not received by February 1, the effective date of the termination will not be until sixty (60) days following February 1 of the next calendar year.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed this 11th day of April, 1979.

WITNESSES:

Virgie Thompson

Margaret A. Faulk

STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, DIVISION OF FORESTRY

By: Doyle Conner
Commissioner of Agriculture

4-11-79
Date

WITNESSES:

Carolyn Garrett

Virginia Golden

STATE OF FLORIDA, GAME AND FRESH WATER FISH COMMISSION

By: Robert M. Brantly
Executive Director

2-28-79
Date

Approved as to form and legality

By: Leslie McLeod
Resident Attorney

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

Commission Attorney

Exhibit F

Florida Department of Agriculture and Consumer Services
CHARLES H. BRONSON, Commissioner
The Capitol • Tallahassee, FL 32399-0800

Please Respond to:

September 12, 2001

Division of Forestry
Forest Management Bureau
3125 Conner Blvd. C-25
Tallahassee, FL 32399-1650
Telephone: (850) 488-6611
FAX: (850) 921-6724

Mr. Mark Glisson
Program Administrator
Division of State Lands
Mail Station 140
Department of Environmental Protection
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Dear Mr. Glisson:

Thank you for forwarding the draft land management review team report for Withlacoochee State Forest (WSF). We appreciate the input and recognition from the review team regarding the exceptional management actions being undertaken on WSF. It is always a pleasure to observe that our agency's public land management activities are benefiting the resources while providing a service to the public. The review team concluded that WSF is being managed for the purpose for which it was acquired and in compliance with the adopted management plan.

Please find attached the recommendations and findings from the review team report an appropriate response to each item. Please note that we show the acreage of the Units identified within the draft report is actually 82,169.1 acres and not the 68,530 acres. Additionally, please see the attached letter that provides that the date the effective date WSF Management Plan is October 26, 1996 and as such is not overdue. The draft report indicates the Management Plan expires in June 2001. We will address those issues within the next Management Plan that are checklist findings and recommendations of the review team which comes within the jurisdictional purview of the review team's authority. Should you have any questions, please advise.

Sincerely,

CHARLES H. BRONSON
COMMISSIONER OF AGRICULTURE

Earl Peterson, Director
Division of Forestry

Attachment

cc: Charles Maynard, Chief, Forest Management Bureau
Winnie Schreiber, Withlacoochee Center Manager

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Land Management Review of The Homossassa, Croom and Citrus Tracts of the Withlacoochee State Forest

Citrus, Hernando and Sumter Counties (Lease No. 3316): June 12-13, 2001

Prepared by Division of State Lands Staff

William Howell, OMC Manager
Ginny Morris, OPS Administrative Assistant

for
the Withlacoochee State Forest Review Team

DRAFT July 31, 2001

Land Manager:	DOF
Area:	68,530 Acres
County:	Citrus, Hernando, Sumter Counties
Mngt. Plan Revised:	6/27/1996
Mngt. Plan Update Due:	6/27/2001

Review Team Determination

Is the land being managed for the purpose for which it was acquired?

After completing the checklist, team members were asked to answer "yes" or "no" to this question. All team members agreed that Withlacoochee State Forest is being managed for the purpose for which it was acquired.

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

After completing the checklist, team members were asked to answer "yes" or "no" to this question. Six team members agreed that actual management practices, including public access, were in compliance with the management plan for this site. One team member did not think that actual management practices, including public access, were in compliance with the management plan for this site.

Commendations to the Managing Agency

1. The team commends the agency manager and staff for the exceptional job managing the forest with limited staff and resources. (7+, 0-)

2. The team commends the manager and staff for their very proactive approach to management of red cockaded woodpeckers and invasive exotic plants. (7+, 0-)

3. The team commends the manager and staff for their creativity with sandhill restoration including use of hardwood chipping harvests, herbicide applications, prescribed burning and mechanical treatments. (7+, 0-)

4. The team commends the manager and staff for the excellent reforestation of bahia pasture at Homosassa. (7+, 0-)

Exceptional Management Actions

The following items received high scores on the review team checklist (see attachment 1), which indicate that the management actions excceded expectations.

Condition of the Maritime Hammock
The Quality of Prescribed Burns
Restoration of off-site Pine Plantations
Restoration of Bahia Pasture
Inventory of Plants
Silviculture Management
Recreational Opportunities

Recommendations and Checklist Findings

The management plan must include responses to the recommendations and checklist items that are identified below.

1. The team recommends that Division of Forestry provide more funding and staff be procured for resource management including:
   a. A boundary survey and boundary identification
   b. Gates and fencing
   c. Signage, both educational and entrance signs
   d. Prescribed burning
   e. Exotic species control
   f. Law enforcement
   g. Threatened and endangered species survey and management
   h. A natural communities survey and map. (Vote 7+, 0-)

Manager's Response: These management needs represent a partial list of priorities for increased funding. These specific items, however, will each be addressed in the upcoming 5-year management plan. Additional funding for such activities is contingent upon our agency's budget resources and priorities, and also upon legislative action and approval. Natural communities survey and map, and boundary survey and boundary identification could be cost prohibitive for this size and wide ranging state forest.

2. The team recommends that Division of Forestry pursue obtaining conservation easements on lands adjacent to the Withlacoochee State Forest to mitigate smoke management issues and incompatible adjacent land uses. (Vote 7+, 0-)

Manager's Response: Both conservation easements and fee simple acquisitions will continue to be pursued using allotted statewide land acquisition funds. Lands adjacent to WSF and within the optimal management boundary will be evaluated for their natural resource qualities and their benefit to the management of existing lands prior to pursuing them for potential acquisition. Since there are limited statewide acquisition funds, priorities will be set statewide for the use of these funds.

3. The team recommends that the DOF should participate in local government planning and zoning decisions regarding activities on properties adjacent to the Forest. (Vote 7+, 0-)

Manager's Response: The WSF staff have in the past taken an active role in regional and local planning and zoning rules. However, field staff can only participate when local governments provide notice of upcoming changes or new development. Staff will reaffirm with local county planning departments the desire to be notified of impending zoning changes adjacent to forest boundaries.

4. The team recommends that the DOF insure that reclamation efforts at Radar Hill continue to be aggressively pursued. (Vote 6+, 1 abstain)

Manager's Response: The appropriate reclamation standards have been a shared effort between Florida Rock officials, the US Forest Service and the DOF. Florida Rock has made some progress in site reclamation and revegetation. With the drought that has been experienced in central Florida, any efforts within the last three years would have met with failure. With the potential transfer of mineral rights from the federal government to the State of Florida, it is critical that a binding agreement and plan for site reclamation be finalized and implemented. This issue will be addressed in the upcoming 5-year management plan.

5. The team recommends that DOF regularly obtain water quality monitoring results from both the closed Citrus County and Hernando County landfills, as well as monitoring results of Silver Lake. (Vote 5+, 2-)

Manager's Response: We disagree with this recommendation. It is not DOF's responsibility to ensure compliance with state DEP landfill monitoring, nor to ensure SWFWMD's water quality monitoring of Withlacoochee River. However, as the surface land manager responsible for public use and forest resource management, we will cooperate with those agencies responsible for carrying out these activities.

Checklist findings

The following items received low scores on the review team checklist (see Attachment 1), which indicates that management actions, in the field, were insufficient (*f*) or that the issue was not sufficiently addressed in the management plan (*p*). These items need to be addressed in the management plan update.

1.Natural Communities:
scrub(*p*),
upland mixed forest(*p*),
terrestrial cave(*p*),
sinkhole(*p*),
tidal marsh(*p*),
seepage slope(*p*),
depression marsh(*p*),

Manager's Response: These natural communities do occur on the forest and future management plans will attempt to provide a description of all FNAI community types as well as a summary of management needs. We are glad to observe that our management actions are sufficient for these community types, however the plan may not tell the story of our actions. Until the appropriate surveying of community types can be done, DOF will focus on an ecosystem approach and the major natural communities in our 5-yr plan and anywhere else where resource values face an immediate threat.

2. Groundwater monitoring for quantity(*p)*

Manager's Response: We disagree with this recommendation. It is not DOF's responsibility to ensure compliance with state DEP or SWFWMD's of monitoring groundwater quality. However, as the surface land manager responsible for public use and forest resource management, we will cooperate with those agencies responsible for carrying out these activities.

3. Surface water monitoring for both quantity and quality(*p*)

Manager's Response: Like in number 5 above, we disagree with this recommendation. It is not DOF's responsibility to ensure compliance with state DEP or SWFWMD's of monitoring surface water quantity and quality. However, as the surface land manager responsible for public use and forest resource management, we will cooperate with those agencies responsible for carrying out these activities.

4. Management concerns due to encroaching residential development(*p*)(f)

Manager's Response: Residential development can limit the options for the acquisition of greenway connections and wildlife corridors, increases the likelihood of boundary encroachment and dumping, and can increase the difficulty of carrying out management practices, such as controlled burning. In the past, forest managers have targeted several critical areas for increased boundary identification and or fencing. In addition, neighborhoods impacted from prescribed fires have been notified in advance of the burning. Many of theses areas within WSF area have been acquired.

5. Impacts from mining(*p*)(f)

Manager's Response: We disagree with this issue. It is addressed in the management plan on page 19 and it is consistent with what is in the field. It is correct that a portion of the forest landscape has been impacted by past mining activities. However, this wording implies it is taking place. No additional mining is occurring or planned for the future. There is no existing mine operations on WSF. Continued efforts are necessary to reclaim the area of recent mining in the Citrus Tract in accordance with what has been or will be approved.

6 Impacts from enduro racing(*p)*

Manager's Response: It should be noted that the one-day motorcycle enduro event is on page 24 of the Management Plan and as such is addressed. This event is the sandhills of the Croom Tract has its trail routed to avoid the most sensitive environmental areas. We believe the flexibility to do this is important. The next management plan will provide information on what Division is doing to minimize impact on the forest.

7 Inadequate resource management staff (*f*)

Manager's Response: In the last five years several new professional and field personnel have been added to the WSF staff. Additional funds also have been received to implement management activities. Unfortunately though, the Service First initiative has also caused a loss in land management positions. The new 5-year plan will identify and prioritize additional staff needs, which funding for this is contingent upon our agency's budget resources and priorities, and also upon legislative approval and appropriation.

8.I nadequate law enforcement presence*(f)*

Managers Response: We concur that greater law enforcement presence would be beneficial to maintain control over the activities of the hundreds of thousands of forest visitors and to ensure natural resource protection. Multiple law enforcement agencies (OALE, DEP, FWC, sheriffs) having some level of responsibility, and in some cases it is not clear who should take the lead on some issues. The new management plan will identify this as a management need. Efforts will be undertaken to review our options with the appropriate law enforcement agencies. Where appropriate, increased cooperation as well as new positions will be targeted to improve law enforcement presence on the forest. Any funding of new positions is contingent upon our agency's budget resources and priorities, and also upon legislative approval and appropriation

-END-

Exhibit G

Withlacoochee State Forest
Management Plan Advisory Group

Meeting Minutes

September 26, 2002

Members Present:

Dan Johnson, Pasco County Commission representative
John Holzaepfel, Private Owner
Rick Spratt, Fish and Wildlife Conservation Commission
Winnie Schreiber, Division of Forestry

Members Absent:

Robin Cox, Sumter County Commission representative
Roger Batchelor, Citrus County Commission representative
Mary Ellen Shoemaker, Sierra Club
Christopher Kingsley, Hernando County Commission representative
Art Studley, Sumter Soil & Water Conservation District

Staff Present:

Bill Korn, Forest Management Bureau
Keith Mousel, Resource Administrator, WSF
Jennifer Hinckley, Forestry Supervisor II, WSF

The Public Meeting of the Withlacoochee State Forest Management Plan Advisory Group was called to order at 5:41pm in the Withlacoochee Wildland Fire and Forest Resource Management Training Center at Withlacoochee State Forest, 24059 Childs Road, Brooksville, Florida.

Mr. Bill Korn gave an introduction. He explained the purpose of the meeting was to discuss how to handle the public hearing following at 6:30pm. He made note that the Two Mile Prairie Tract of Withlacoochee State Forest was not addressed in this plan since a Five-Year Resource Management Plan was accepted for it two years ago. He defined the role of the group as representing the public and different user groups and to assist the land manager with input to the plan before it goes to the Acquisition and Restoration Council (ARC).

Mr. Korn explained that 1997 Legislation requiring public involvement in preparation of management plans for Trustee-owned State lands. Mr. Korn reviewed the Legislative language for Advisory Group responsibilities.

Mr. Keith Mousel, WSF Resource Administrator, reiewed the steps taken by Division of Forestry to comply with requirements for public noticing related to these Advisory Group meetings and the public hearing. He told the group that that the Public Hearing Notice was in The St. Petersburg Times in the Citrus, Hernando and Pasco Sections on September 5, 6, & 7, 2002; the Sumter County Times on September 5, 2002, and the Florida Administrative Weekly on September 6, 2002. The Public Hearing Notice also appeared on the County Commission agenda in Pasco County on September 4, 2002, Hernando County on September 24, 2002, Sumter County on August 27, 2002 and in Citrus County on September 10, 2002.

In addition, Mr. Mousel announced that the management prospectuses and public meeting notice had been posted on August 29, 2002 at the following locations: Hog Island Campground kiosk, Silver Lake Campground kiosk, Tillis Hill Recreation Area, Holder Mine Campground kiosk, Tucker Hill trailhead kiosk, Croom Motorcycle Gatehouse, Mutual Mine Campground kiosk, McKethan Lake Day Use Area kiosk, Withlacoochee Forestry Center headquarters, Withlacoochee State Forest Visitor Center, Homosassa Tract Field Office, Bushnell Forestry Station and Dade City Forestry Station.

Mr. Bill Korn explained the Division of Forestry asks Advisory Group members to abide by the Florida Sunshine Laws, which state that, outside the announced meetings, the advisory committee should not discuss the Five-Year Resource Management Plan with any other members of the Advisory Group. Therefor, if AG members had specific questions of DOF on the plan, they should address them to Mr. Mousel rather than Ms. Schreiber.

It was also noted that the minutes would be recorded for this meeting and the two public hearings and would be provided to the group for review and approval at next Wednesday's 1:00 pm meeting. They could be mailed or emailed to any group members who desired or who couldn't attend.

The group was told that once the Director approved the final draft, a copy would be mailed to them. The Management Plan would then be brought to ARC for their review and approval. If the Advisory Group members had additional input at that time, they would have to go to the ARC public meeting that will be scheduled in Tallahassee. Mr. Korn explained that some groups wait until the ARC hearing to give input on the plan.

Mr. Korn asked the group to select a leader to head up the public hearings. Mr. John Holzaepfel nominated Ms. Winnie Schreiber. Mr. Dan Johnson seconded the nomination. All agreed on the nomination. Ms. Schreiber agreed to lead the public meetings.

Mr. Bill Korn stated that tonight and next Tuesday the Advisory Group was to listen to the input during the public hearings. Mr. Korn emphasized that the group would not be debating any of the input tonight, just listening. He noted that the Division of Forestry had received no written comments about the plan. Mr. Keith Mousel said that he had

received only one phone call about the management plan. The phone call was from the Florida Forestry Association asking if the Withlacoochee State Forest Five-year Management Plan was a new plan.

Mr. Bill Korn stated that next Wednesday the Advisory Group will meet and discuss their ideas and concerns about the Management Plan. This will be the time for members to comment on what they'd heard at the public hearings, as well as to share their individual thoughts about the plan and state forest management issues. Mr. Korn stated that the group should build consensus on any changes or recommendations regarding the management plan.

Ms. Schreiber asked if it is accurate that the public comment cut off date is at the final public hearing. Mr. Korn answered that yes the stated deadline is the final public hearing next Tuesday night, however the public will have the opportunity at the ARC public hearing to submit written comments.

Mr. Korn stated that Mr. Mousel would be giving an informative slide presentation on the state forest and the key elements of the new management plan.

Mr. Bill Korn asked for agreement that the speakers during the public meeting be given five minutes to speak. All agreed with five minutes.

Mr. Bill Korn said that the Wednesday meeting is in the basement of the Withlacoochee Forestry Center at 1pm. The Speaker Forms that are used tonight and next Tuesday will available for the Advisory Group to read at the Wednesday meeting.

Mr. Dan Johnson asked if he could ask questions during this meeting.
Mr. Korn replied yes, that he could ask now. He asked about the swapping land ideas that were stated in the plan. He asked if the locations would be close by to be feasible, such as links to make a corridor that would connect Homosassa to Sugar Mill Woods. Also, he asked if the land swapping would include easements.

Mr. Keith Mousel answered that in the Management Plan is an Optimal Boundary Map. These lands are assessed as favorable to acquiring. Ms. Winnie Schreiber added that all the different types of acquisitions are options for Withlacoochee State Forest. Mr. Bill Korn explained that some projects are a part of an approved CARL project. If the projects are not within an existing CARL project - then they can become stand alone project for a new CARL project or the state forest inholdings and addition program. He than stated that the water management district's acquisition sections communicate a lot with the CARL staff (Division of State Lands) on available lands and acquisition projects within their districts.

Mr. Dan Johnson asked about the budget on pages 74-75. He asked about the priority objectives and goals need priority costs associated. He noted that the priority objectives and goals are listed as $1.2 million and that it is 30% higher than the stated budget. He than asked if this was a budget request for next year. Mr. Korn answered that Mr.

Mousel listed projects in priority areas. Then Keith compared the existing budget with these goals and projected the cost to be 30% higher. Bill Korn stated that a fair discussion would be are these listed projects shown in the appropriate priorities and are these good goals for the forest.

Mr. Dan Johnson asked if Florida Rock was still involved in the mineral lease. Ms. Schreiber stated that the lease was with the Federal Government and the lease had expired. Florida Rock has been turned down by the Federal Government for another lease.

Mr. Dan Johnson stated that he would not be at the Tuesday hearing in Bushnell. He would however be at the Wednesday meeting. He would also like the minutes to be emailed to him. Mr. John Holzaepfel and Mr. Rick Spratt will be at the Wednesday meeting.

The Advisory Group meeting was closed at 6:10pm.

Withlacoochee State Forest

Management Plan Advisory Group

Public Meeting/Hearing Minutes

September 26, 2002

The Public Meeting/Hearing was held at the Florida Center for Wildland Fire and Forest Resource Management Training at Withlacoochee State Forest, 24059 Childs Road, Brooksville, Florida. The Management Plan Advisory Group members present were as follows:

Dan Johnson, Pasco County
Rick Spratt, Fish and Wildlife Commission
Winnie Schreiber, Division of Forestry
John Holzaepfel, Private Land Owner
Jim Fleming, SWAMP

Staff Present

Keith Mousel
Jennifer Hinckley
Wilbur Priest
Vince Morris
Tom Willis
Bill Korn
Keith Hudson
Chuck Schneider
Lynne Bolton
Jason Burton (FWC)

At 6:41 pm Mr. Bill Korn announced that no public was yet present for the announced 6:30 pm public meeting/hearing and if okay with the Advisory Group members, they'd delay the start of the meeting until 7:00 pm to see if anyone showed up. The AG members agreed.

At 7:00 pm the Advisory Group "chair", Ms. Winnie Schreiber, called the meeting to order and as still no public had arrived to participate, she closed the meeting at 7:01 pm.

Withlacoochee State Forest
Management Plan Advisory Group

Public Meeting/Hearing Minutes

October 1, 2002

The second public meeting/hearing was held at the county commission chambers at the old courthouse building in Bushnell, Florida. The Management Plan Advisory Group members and staff present were as follows:

Advisory Group Members Present

Winnie Schrieber, Florida Division of Forestry
John Holzaepfel, Private Land Owner
Rick Spratt, Florida Fish and Wildlife Commission
Glenn Bailey, Citrus County Representative

Staff Members Present

Bill Korn, Florida Division of Forestry
Wayne Jones, Florida Division of Forestry
Jennifer Hinckley, Florida Division of Forestry
Keith Mousel, Florida Division of Forestry
Lynne Bolton, Florida Division of Forestry
Vince Morris, Florida Division of Forestry
Jason Burton, Florida Fish and Wildlife Commission

At approximately 6:40 pm Mr. Bill Korn announced that as of yet no member of the public was yet present for the announced 6:30 pm public meeting/hearing and if okay with the Advisory Group members present, they'd delay the start of the meeting until 7:00 pm to see if anyone showed up. The AG members agreed. Mr. Korn also mentioned that no comments were collected in any form in regards to the meeting and the management plan. No letters or notes were sent in from the public in regards to the meeting.

At 7:00 pm the Advisory Group "chair", Ms. Winnie Schreiber, called the meeting to order and as no public was present to participate, she closed the meeting at 7:01 pm.

(amended 10/14/2002: Bill Korn reminded the Advisory Group Members that the next Advisory Group meeting is tomorrow, October 2, 2002, in the basement of the Withlacoochee Forestry Center Head Quarters) Keith Mousel will give his presentation at that time.

Withlacoochee State Forest
Five Year Resource Management Plan Advisory Group
Advisory Group Meeting Minutes

October 2, 2002
1:00pm

Members Present
Winnie Schreiber, Division of Forestry
Glenn Bailey, Citrus County Commission representative
Mary Ellen Shoemaker, Sierra Club
John Holzaepfel, Private Land Owner
Art Studley, Sumter Soil and Water Conservation Board
Rick Spratt, Fish and Wildlife Commission, Richloam, Citrus, Homosassa
Jason Burton, Fish and Wildlife Commission, Croom
Jim Fleming, SouthWest Association of Mountain Bike Pedalers
Dan Johnson, Pasco County Commission representative

Members Absent
Robin Cox, Sumter County Commission representative
Christopher Kingsley, Hernando County Commission representative

Staff Present
Bill Korn, Division of Forestry
Keith Mousel, Division of Forestry
Chuck Schneider, Division of Forestry
Jennifer Hinckley, Division of Forestry

Mr. Bill Korn called the Advisory Group meeting for the Withlacoochee State Forest Five-Year Management Plan to order at 1:03pm atthe Withlacoochee Forestry Center located at 15019 Broad Street, Brooksville, Florida.

Each member was given a copy of the Minutes of the Pre-Hearing Advisory Group Meeting and the two subsequent Public Hearings that were held September 26, 2002 and October 1, 2002. There were no written comments submitted by absent Advisory Group members. The minutes were reviewed. Winnie Schreiber stated that she would like the minutes from the September 26th meeting to have the specific sections of the St. Petersburg Times included. The specific sections of the St. Petersburg Times were Citrus, Hernando, and Pasco. All members at meeting approved the minutes with the amended sentence.

Mr. Korn stated that this was the final meeting of the Advisory Group. He told the members that a revised copy of the plan will be sent out to them after the Division of Forestry Director has approved it. He reminded the group that today's meeting is for the

group to talk and tell the Division of Forestry what changes to the plan thegroup would be interested in seeing.

Mr. Keith Mousel gave a twenty-minute "PowerPoint" presentation on Withlacoochee State Forest that included key accomplishments over the past five years and a summary of the major area

The meeting then proceeded by allowing members to voice their comments on the plan. A summary of the meeting follows.

Mary Ellen Shoemaker

Mrs. Shoemaker asked for the changing of the road names on the Citrus Tract to be a priority since it would be beneficial for explaining to emergency officials and recreational users where a location is. She did not want Citrus County to expand their landfill on the forest. She wanted any new requests for new landfills or expansion of existing landfills to be denied. She wanted to see more details in the plan regarding reclamation work and she'd like to add the word "timely" to describe expectations for reclamation of the mine area. Ms. Schreiber stated that Florida Rock was on a time schedule where the time-line is weather dependent. They are ahead of schedule since the weather has been good.

Mrs. Shoemaker stated that the words "motorized penetration" does not explain completely what the goals of DOF are in regards to parking areas and access roads on page 34. She supports and encourages user fees but asked why the use of "may" in the plan when describing DOF's plans to pursue more user fees. Mr. Chuck Schneider stated that the lack of personnel to get the fees is a hindrance to adding more user fees.

Mrs. Shoemaker questioned the lack of detail regarding the mineral rights exchange with the federal government. It was clarified that greater detail is provided in the section on p. 61.

She stated that the second maternity bat cave on the forest was not listed in the draft plan. She expressed the need to give background on the mineral rights exchange. She also wanted to add a reference to the indigo snake on page 20.

Mrs. Shoemaker asked for a clarification of what off-site means. Mr. Mousel responded with the silvicultural definition of off-site. She asked about adding the word "leader" to work crew on page 16 to clarify that DOF had lost a work crew leader from its inmate work crew program. She wanted the word "productive" deleted on page 16 from the statement that includes "increasing volunteer productive interaction". She stated that she had concerns regarding the proposed SunCoast Parkway extension cutting in half the Anneteliga Hammock Unit. She asked if the optimum management boundary map was realistic.

She suggested that in the first and last paragraph on page 14 there was conflicting word usage regarding multiple-use. This should be combined all into one paragraph she

thought. She added that it all sounded a bit too wishy-washy. Mr. Schneider explained that we have to give "consideration" to all requests that are submitted to the state forest.

Mrs. Shoemaker wondered if we could communicate more with the media on resource issues to better educate the public. Mr. Schneider responded that DOF has three information officers, Keith Mousel, Lynne Bolton and Erin Albury. She would like to see DOF increase its media coverage. Mr. Korn told her that staff did a pretty good job getting pre-burn publicity out to the local papers advising location and time of upcoming burns. Mrs. Shoemaker wondered if we could add into the plan that an option to asked a University for a potential user fee survey through their recreation or natural resource departments. She also asked that we change the word "easement" to "road" on page 9 paragraph 4 to more properly define the expired status of Florida Rock access road's formal easement.

Overall, however, she stated that the new management plan was an excellent thing.

Jim Fleming

Mr. Fleming stated that the road signage and trail signage needs improving and suggested a new objective in Goal 6 to address this. He would also like to have the Withlacoochee Trails Council included in the plan as an objective under Goal 6. Mr. Fleming stated that 5I-4 needed to be formally referenced to the Florida Administrative Code.

He said that an education program for trail users would be a good idea. Education should include rules of the trail and which trails are used for what activity. He agreed that user fees are needed. He stated that the Withlacoochee Trails Council working with DOF should evaluate opportunities for trail user fees. He supports stronger language regarding adopting more user fees.

Mr. Fleming noted that on page 28 recreational monitoring would be a good idea since there are trail conflicts. Some co-use of trails is not compatible. Also on page 28, he stated users should be accountable and mitigate work and rehab as necessary on trails. He wondered if DOF should note the physical needs site by site on shared trails. Also, DOF should look into compatibility with 'shared users'.

Overall, Mr. Fleming stated he is satisfied with the management plan.

Jason Burton

Mr. Burton encouraged DOF not to lock in to user fees due to amount of money that if costs in relation to the amount of money that is received. He asked if there are any plans to burn and restore the natural wetlands, such as Boggy Pond, that have had a buildup of organic duff. Mr. Schneider responded that our major issue with fire restoration is the smoke management. He asked if maybe there was a grant that we could find to use mechanical means to restore the pond. Mr. Korn stated that maybe the DOF hydrological section would have an interest and could be involved in restoration of ponds .

Mr. Burton was wondering why he was hearing Twin Pond Hunt Camp was to be relocated. He questioned where would it be relocated. Mr. Schneider stated that that it was considered for relocation due to wet conditions and erosion on the access road. A possibility being looked at was to relocate it behind the check station on Croom-Nobleton Road. Mr. Burton is not in favor of relocation due to tradition and the proximity of road traffic/noise near the proposed check station site.

Mr. Burton thinks that we should clarify the statement on page 56 in section 5 regarding setting limits for logging in RCW colony sites. He felt DOF may be tying their hands and that when timber harvests are necessary, for example due to beetle infestation, logging would be permitted. Mr. John Holzaepfel agreed, that DOF should leave room in the statement for beetle attacks. He noted that section 6 states that DOF will have hardwood removal at the colony sites and he wanted to know if this was part of the RCW plan language.

Mr. Burton also asked if DOF is establishing goals or gathering trends for specific biological monitoring protocols at the Sugarmill Woods Parcel. His concern was that it was premature for DOF to adopt a monitoring protocol. Mr. Holzaepfel stated that he does not think that using RCW condition as a "canary species" is appropriate as it may not necessarily be indicative of the health of the overall ecosystem. He thinks this is an oversimplification.

Rick Spratt

Mr. Spratt applauds the efforts of the plan writers and said it is a good plan.

Mr. Spratt would like RCW work on FWC/DOF banding in Citrus on page 3, objective 4, to be reflected in the plan. He wanted to know if WMA permittees are exempted from existing user fees. He wanted to know what does the $25 hunt fee entitle the user to on the forest. He would like to see the text to include that the World Woods Parcel will have a public parking area. Mr. Spratt also stated that, on the map on page 35, Lecanto is more than 4 miles north of this unit.

Mr. Spratt then brought up the issue of open and closed roads on the Richloam Tract. He said the lack of good signage, etc. made it difficult for law enforcement officers to enforce closed roads. Mrs. Winnie Schreiber agreed that the road management plan should be a priority with emphasis on Richloam. He would like the word district added to the FWC reference on page 38.

Mr. Spratt pointed out that Baird is a unit of Richloam WMA, which is different than what's stated on page 53. He stated that food plots are getting reestablished in Citrus. Regarding the management of wildlife openings/food plots in Citrus, he requested DOF remove the stipulation regarding leaving longleaf ingrowth on page 53 paragraph 4. Mr. Spratt thinks that native groundcover should be the goal. Mrs. Schreiber concurred and said that FWC and DOF need to revisit food plot practices.

Glenn Bailey

Mr. Bailey stated that he is Gary Maidoff's designee from Citrus County government. He stated that Mr. Maidoff does not have any issues with the plan. Mr. Bailey suggested that DOF address adjacent owner concerns when prescribe burning. He would like to see notification of prescribed burns to residential and commercial areas adjacent to the forest. He also asked about user surveys on user fees and needs using the resources and students of the University of Florida.

John Holzaepfel

Mr. Holzaepfel would like to see the plan include hard bottom crossings (low-water crossings) as an alternative to culverts in road management. Mr. Holzaepfel asked how often timber inventories are being done. Mr. Mousel explained that we inventory as stands move into merchantability and after any management activity in a stand.

He suggested additional objectives under Goal 5. He had heard concerns regarding unsuccessful efforts at replanting clearcut sites in Richloam/Baird this past year. . He wanted an objective to address the inadequate site preparation since the competition issues are not being addressed in reforesting stands. He suggested, therefore, a new objective to ensure efficient and successful techniques for site preparation and reforestation. He will give language to Mr. Mousel. Secondly, Mr. Holzaepfel would like to see an objective added here that focused on more thinning in overstocked mesic flatwood stands.

He had a question regarding where in the plan age distributions are covered. Mr. Korn stated that it is in the Desired Future Condition part of the plan. Mr. Holzaepfel stated that uneven-aged management is more costly with less revenue and that success will be difficult with lack of staff. He liked the fact that DOF had not set any specific rotation age.

Mr. Holzaepfel is concerned about the outcome of hydrological restoration in Baird and Richloam. He gave DOF kudos on the burning accomplished but voiced some concerns with the quality of the burns. On page 72 he suggested DOF insert "hydrological" to describe "interference". Also on page 72, he suggested rewriting the general trend section and gave Mr. Mousel some possible language.

Mr. Holzaepfel stated that overall it looks like a whole lot of work went into writing the management plan. He commended everyone involved for doing a good job.

Art Stuckey

Mr. Stuckey stated that the plan was a great document and that someone did a lot of work.

He strongly encouraged DOF to add more language on exotic plants especially for the tropical soda apple on Croom Tract. Also, he was interested in having the cracker cattle loaned to the cracker village at the state fair grounds in Tampa for display. He likes the multi-use concept. He stated that it is hard to do what the Division of Forestry is doing.

Dan Johnson

He would like DOF to look at the optimum boundaries in Jumper Creek and Croom and extend them as needed in order to provide a greenway connector.

Winnie Schreiber

Mrs. Schreiber stated that her comments are already incorporated into the plan. She stated that everyone's comments have been really good.

Mr. Jim Fleming asked about Acquisition and Restoration Council (ARC). Mr. Korn explained the role and function of ARC and what happens to the plan from this point.

Bill Korn closed the meeting at 5:00pm.

In an effort to receive input from all Advisory Group members, the two that were not present at the October 2 meeting were contacted. Their comments are recorded below.

On October 7, 2002, at 3:30pm, **Chris Kingsley**, Hernando County Commission spoke with Jennifer Hinckley, Division of Forestry. He said that he had no comments at this time in regards to the Management Plan on Withlacoochee State Forest.

On October 8, 2002, **Robin Cox's** assistant Ms. Hunt relayed a message from Mr. Cox that he is in full agreement with the Five-Year Management Plan for Withlacoochee State Forest.

Recommendations and Comments for the Withlacoochee State Forest Five-Year Management Plan

Submitted by:
Jason G. Burton
Fisheries and Wildlife Biologist, L3
Florida Fish and Wildlife Conservation Commission
October 2, 2002

Introduction

The Florida Fish and Wildlife Conservation Commission maintains a biologist position for the Croom Wildlife Management Area, which is a portion of the Withlacoochee State Forest. Since the primary land manager is the Florida Division of Forestry, the primary responsibilities, of the FWC area biologist, are to manage hunts, conduct wildlife surveys and provide technical assistance to DOF. As a cooperator on the Withlacoochee State Forest, the Croom WMA biologist was given the opportunity to comment on the Withlacoochee State Forest Five-Year Management Plan.

Recommendations and Comments

In order to simplify the process recommendations and comments will be provided in the following format: Page number(s) referring to the subject of the recommendation or comment, a brief excerpt from the text referring to the subject of the recommendation or comment, and the recommendation or comment.

1. Page 2
"Objective 3: Hunting and trapping will be used to control feral hog populations"
The Commission would liketo encourage the use of hunts for the control of hog populations when possible to increase the number or recreational opportunites.

2. Page 3
"Currently WSF has one biologist on staff who has set up a vegetative monitoring program which includes sampling for fox squirrel nest and gopher tortoise burrow densities and sizes."
I assume you are referring to population size or are you making an adult/juvenile distinction based on physical size of a burrow?

3. Page 4
"Objective 2: Improvements to signage."
Most of the road signs on Croom have already been stolen or vandalized. Are there plans to maintain the signage?

4. Page 5
"Objective 6: Remove offsite pine and restore sandhill community using growing season fire, harvesting of pines and reforestation with longleaf pine where needed."
If you are using fox squirrels and gopher tortoises and an indicator of success you will have to qualify your results with the treatment technique and the prior condition of the stand. Example: A pasture restored by planting longleaf may show a decline in the number of gopher tortoises.

5. Page 10
"Figure 1: Table of Public Lands"
Oldenburg Mitigation Park should be listed as Perry Oldenburg Mitigation Park.

6. Page 14

"Other concession permits are being studied."

Are concessionaires currently using the forest without permits? Doesn't state law require a permit/contract for a private entity to profit from the use of public property?

7. Page 19

"**Water Resources**"

Many of the wetland areas on Croom have silted in or have accumulated significant amounts of muck. Does DOF have any intentions of restoring these areas mechanically or with fire?

8. Page 20

"Non-game species include red and gray fox, eastern tiger salamander, bald eagle...."

Probably very few if any red fox on Croom, may have on other tracks.

9. Page 28

"Recreation areas, such as trails, day use areas, hunt camps and campgrounds will be monitored for resource degradation."

What types of degradation will you be looking for? At what point will activities be curtailed?

10. Page 29

"Plans are underway to provide new brochures with global information system (GIS)-enhanced maps for all trails ...."

GIS stands for Geographic Information System.

11. Page 45

"Relocation of Twin Pond Hunt Camp to a less environmentally sensitive area is being evaluated."

Hunt camps are very traditional and an integral part of the overall experience for many hunters. What specific environmental factors are being impacted at the campground? Is it the campers that are causing the problems or is it related to other activities?

12. Page 46

"A GIS-accurate brochure was published in June 2000."

"GIS-accurate" does not imply any scale of accuracy. A map generated with a GIS could be sub-centimeter accurate or it could be inaccurate by several thousand miles.

13. Page 53

"Otherwise, hunting and fishing regulations are the same as those on private land."

This is a poor statement. Most management areas vary significantly from private lands. Probably should say something to the effect of all management areas differ and specific regulations for each area should be reviewed.

14. Page 54

"Florida Fish and Wildlife Conservation Commission Harvest Data FY 1999-2000"

Nine Turkeys were harvested on Croom.

15. Page 55

"Trapping, in the form of drift netting, will be done in attempt to locate other suspected amphibians."

Probably would be more appropriate to say pitfall trapping and/or funnel trapping in combination with drift fencing.

16. Page 56

"5. Should timber harvestingbecome necessary in a cluster due to insect, disease, or crowding, a minimum of 5 acres will be left undisturbed around ...."

Will this include both active and inactive trees/clusters??

17. Page 57

"6. Few or no hardwood trees should exceed 10 feet in height within a cluster site."

This is a good example where improving habitat for one of the indicators of sandhill quality may negatively impact another one. It has been shown in Mississippi that fox squirrels prefer/select areas with a hardwood component.

Exhibit H

Board of County Commissioners

DEPARTMENT OF DEVELOPMENT SERVICES

Web Address: http://www.bocc.citrus.fl.us • Toll Free (352) 489-2120

3600 W. Sovereign Path, Lecanto, FL 34461-8070

In reply, refer to:

PL3-02-228

August 23, 2002

Keith G. Mousel
Withlacoochee Forestry Center
Division of Forestry
15019 Broad Street
Brooksville, Florida 34601

Dear Mr. Mousel:

Per your request, we have previewed the draft copy of the Withlacoochee State Forest Five-Year Management Plan that you provided. We find the Management Plan to be in compliance with the Citrus County Comprehensive Plan and see no outstanding issues with the document as it applies to Citrus County or the overall region.

The Citrus County Comprehensive Plan has specific provisions within its Conservation Element addressing inter-governmental cooperation regarding publicly owned lands. Objective 3.14 provides that Citrus County shall implement procedures to protect and assist the management of natural reservations. Within that Objective, Policy 3.14.1 states that "The County shall assist State and Federal agencies in their management efforts relating to preservation and protection of natural reservations". Policy 3.14.2 contends that "The County shall provide technical assistance and actively participate in state land acquisition programs". Lastly, Policy 3.14.3 says "The County shall not seek or support State natural reservations for public uses which conflict with their respective agency objectives".

Therefore, finding no conflicts within the Management Plan provided and in accordance with the policies of the Citrus County Comprehensive Plan, we support the goals and objectives listed for the next five-year period and feel strongly about restoring natural communities and providing the optimum balance of human use and ecosystem preservation. We look forward to continuing and increasing the positive benefits the Withlacoochee State Forest provides to Citrus County, its wildlife, and its citizens.

Sincerely,

Glenn C. Bailey

Glenn C. Bailey
Environmental Planner
Citrus County Department of Development Services

GCB:dlo

cc: Charles S. Dixon, AICP, Director, Community Development Division
Kevin A. Smith, AICP, Planning Manager, Community Development Division

Lake County
DEPARTMENT OF GROWTH MANAGEMENT
"Earning Community Confidence Through Excellence in Service"

October 16, 2002

Department of Forestry
15019 Broad Street
Brooksville, Florida
34601

Mr. Keith Mousel
Resource Administrator, WFC

Re: Withlacoochee Forest 5-Year Management Plan

Dear Keith,

As we discussed in our phone conversation this morning, the Department of Forestry's 5- year Management Plan is in Compliance with Lake County's Comprehensive Plan.

Should you have any additional questions, please don't hesitate to call me. I can be reached at 352.343.9739 Ext. 9544.

Cordially,

Allan Hewitt
Director
Planning & Development
Water Resources

AH/vg

315 West Main Street • P.O. Box 7800 • Tavares, Florida 32778-7800
www.lakegovernment.com

Senior Director 352/343-9642 • Fax 343-9595 • Suncom 659-1642

Building Services
352/343-9553 S.Lake 394-5962
Fax 343-9561 Fax 394-0197

Code Enforcement
352/343-9639
Fax 343-9471

Planning & Development
352/343-9739 Zoning 343-9641
Fax 343-9767 S.Lake 394-6466 Fax 394-8226

Water Resource Management
352/343-9738 Lab 742-2692
Fax 343-9595 Fax 742-2781

PASCO COUNTY, FLORIDA

Dade City	(352) 521-4274	Growth Management Department
Land O'Lakes	(813) 996-7341	West Pasco Government Center
West Pasco	(727) 847-8193	7530 Little Road, Suite 320
Fax	(727) 847-8084	New Port Richey, FL 34654-5598

December 5, 2002

Mr. Keith G. Mousel
Withlacoochee Forestry Center
Division of Forestry
15019 Broad Street
Brooksville, Florida 34601

Dear Mr. Mousel:

I would like to thank you for giving Pasco County the opportunity to preview the draft of the Withlacoochee State Forest Five-Year Management Plan. In viewing the draft it appears that it is consistence with the Pasco County Comprehensive Plan.

With regard to Goal I; the restoration, protecting and maintenance of native ecosystem we have noted that is your intent to notify Division of Historical Resources, Division of State Lands and Florida Natural Areas Inventory. However, it is the County's practice to also contact the Tampa Bay Regional Planning Council, Southwest Florida Water Management District, Department of Environmental Protection, The Florida Fish and Wildlife Conservation Commission and Department of Agriculture. You may wish to consider adding these agencies to your contact list in the event of any land clearing.

In addition, I noted that you did not mention other species associated with the wetlands, such as the Southern Bald Eagle, Tricolored Heron and the Wood Stork.

Pasco County makes great strides in preserving and protecting the area's ecosystem and supports your effort to do the same. If you should have any questions please feel free to contact me at (727) 847-8193 ext. 7891.

Sincerely,

Tylon McGee
Planner II

Board of County Commissioners

Hernando County

PLANNING DEPARTMENT

Government Center / Administration Building
20 North Main Street, Room 262
Brooksville, Florida 34601 - 2828

Planning - (352) 754-4057
Fax -(352) 754-4420
E-Mail: planning@co.hernando.fl.us

September 11, 2002

Keith G. Mousel, Resource Administrator
Division of Forestry
15019 Broad Street
Brooksville, FL 34601

Dear Mr. Mousel:

Thank you for the opportunity to review and comment on your draft Withlacoochee State Forest Five-Year Management Plan. The draft does not appear to be inconsistent with Hernando County's Comprehensive Plan. We commend you for your hard work in creating an excellent draft plan. We offer two comments for your consideration.

First, the plan makes minimal mention of certain unique vegetation communities which exist within the Forest in Hernando County, such as the stand of unusually large cypress trees along the Little Withlacoochee River, Indian House Swamp Hammock, and remnant portions of the Big Hammock.

Second, the plan's Resources Section makes no mention of the unique amphibian communities which exist within the remnant Big Hammock stands within the Forest. Although most of the individual species may not be Listed Species, the diverse assemblage of frogs, toads, and salamanders living in the Forest's Big Hammock probably do not occur anywhere else in the world. Considering the documented decline of amphibians in most parts of the world and the vulnerability of amphibians to man's activities and chemicals, the special amphibian communities of the Withlacoochee State Forest are a precious resource that seems worthy of recognition and consideration in the management plan.

Enclosed for your library (and your reading enjoyment) is a copy of an excellent reference document on the Big Hammocks. It is entitled *Hernando County's Big Hammock Region, Ecological and Historical Review, Hernando County, Florida*, and was prepared by HDR Infrastructure, Inc. for Hernando County in August, 1987. The report includes a substantial list of amphibians which occur there.

If you need a current copy of Hernando County's Comprehensive Plan for your library, please call me at 352-754-4057. Thanks again for the opportunity to comment and best wishes for the completion of your plan.

Sincerely,

Lawrence Jennings
Director of Growth & Development

jgk

Enclosure

E:\WPDATA\Ugk\WSF.MGM

Board of County Commissioners
Division of Planning & Development
Planning Department
209 North Florida Street, Room 324 • Bushnell, FL 33513 • Phone (352) 793-0270 • FAX: (352) 793-0274
SunCom: 665-0270 • Website: http://bocc.co.sumter.fl.us/plandevelop

October 8, 2002

Mr. Keith Mousel, Resource Administrator
Withlacoochee State Forest
Division of Forestry
15019 Broad Street
Brooksville, FL 34601

Re: Withlacoochee State Forest Five Year Management Plan

Dear Mr. Mousel:

Thank you for submitting a copy of the Management Plan. I have reviewed it and find that it does comply with the Sumter County Comprehensive Plan. The land use reflected in the Plan for that property is Conservation. The Management Plan conforms to the uses appropriate for that land use.

If I can be of further assistance, do not hesitate to call.

Yours truly,

Roberta Rogers

Roberta Rogers, AICP

Exhibit I

FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Office of International Relations
Division of Administrative Services
Division of Corporations
Division of Cultural Affairs

MEMBER OF THE FLORIDA CABINET
Division of Library & Information Services
Division of Historical Resources
Ringling Museum of Art
Division of Licensing
Division of Elections

FLORIDA DEPARTMENT OF STATE
DIVISION OF HISTORICAL RESOURCES

April 2, 2001

Ms. Colleen Werner
FAX: 352 754 6751

Dear Ms. Werner:

In response to your inquiry of March 30, 2000, the Florida Master Site File has provided electronic data of previously recorded cultural resources within the following parcels:

Hernando, Sumter, Citrus, & Pasco counties.

In interpreting the results of our search, please remember the following points:

- Areas which have not been completely surveyed, such as yours, may contain unrecorded archaeological sites or historical structures.
- While many of our records relate to historically significant properties, the entry of an archaeological site or an historical structure on the Florida Master Site File does not necessarily mean that the resource is significant.
- Since vandalism is common at Florida sites, we ask that you limit the distribution of location information on archaeological sites.
- **As you may know, federal and state laws require formal environmental review for some projects. Record searches by the staff of the Florida Master Site File do not constitute such a review. If your project falls under these laws, you should contact the Compliance Review Section of the Bureau of Historic Preservation at 850-487-2333.**

If you have any further questions concerning the Florida Master Site File, please contact us as below.

Sincerely,

Daniel McClamon, 850-487-2299
Data Analyst, Florida Master Site File
Division of Historical Resources
R. A. Gray Building
500 South Bronough Street
Tallahassee, Florida 32399-0250

State SunCom: 277-2299
Fax line: 850-921-0372
Email: *fmsfile@mail.dos.state.fl.us*
Web: *http://www.dos.state.fl.us/dhr/msf/*

4-2-01

Exhibit J

Recreational Facilities found on WSF

Croom Tract

Silver Lake Recreation Complex
3 campgrounds with
23 Electric Campsites
69 Non-Electric Campsites
Hiking Trailhead
Nature Trail
Day Use Area
2 Boat Ramps
Canoe Camp Zone
3 Bathhouses
One Park Ranger
1 Camp Host Site
PK trails/facilities under development

Croom Motorcycle Area
2 Day Use Facilities
Campground with 50 Electric Campsites
2 OPS Gate Attendants
1 Bathhouse + 1 under development
2 small restrooms (1 each for men/women) + 1 large under development
2 Park Rangers
1 Career Service Park Attendant
1 OPS Park Attendant

Tucker Hill Trailhead
Horse Trailhead and Parking Area
Hiking Trailhead and Parking Area
Off-Road Bicycle Trailhead and Parking Area
Restroom/Trailhead Facility under construction

Twin Pond Hunt Camp
28 Campsites + overnight camping area open during Hunting Season
Special Group Use Area
Trailhead-Horse

Hog Island Campground
20 Non-Electric Campsites
1.8 Mile Nature Trail
Hiking Trailhead
Day Use Area
Boat ramp

Canoe Camping Area
Youth Group Camping Area
1 bathhouse
1 Park Ranger
Camp Host Site

East Hunt Camp
15 Campsites + overnight camping area open during Hunting Season
Special Group Use
Horse Trailhead

Iron Bridge Day Use Area
Canoe Launch
Parking Area
Picnic Area
Hiking Trail

River Junction Recreation Area
20 Non-Electric Campsites
Boat Ramp
Day Use Area
Hiking Trailhead
Camp Host Site

Trails
31.5 Miles of Hiking Trails
(Richloam)
31.3 Miles of Hiking Trails
(Croom)
30 Miles of Horse Trails
3.5 Miles of Canoe Trails
64 Miles of Bicycle Trails
2 Primitive Campgrounds
3 primitive camp zones (2 hiking, 1 canoe)

JUMPER CREEK TRACT

Jumper Creek Day Use Area
3 Day Use Areas with Parking

Trails
10 Miles Canoe Trails
18 Miles Hiking Trails

Shell Island Campground
Primitive Camp Zone/River Access Only

RICHLOAM TRACT

Richloam Hunt Camps
10 Hunt Camps with 181 total sites
1 Overnight Campground with sites
3 Camp Zones on Hiking Trail

Lacoochee Park
2 Day Use Areas
Canoe Launch

Trails
35 Miles of Hiking Trails

Baird Unit
Entrance and Day Use Area
Cedar Hammock Lodge
Horse Trials – approval pending
1 Park Ranger
Revels Pond Day Use Area
Nature Trail

Little River
Parking Area
8 Miles Multi-Use Trails

CITRUS TRACT

Tillis Hill Recreation Area
Electric Campsites (37)
Covered Picnic Pavilion (1)
Dining Hall (1)
Bathhouses (2)
Horse Stable (20 stalls)
Dog Kennel (60 cages)
Day Use Horse Area
6,000 Acre Field Trail Area
Horse Trail Trailhead
24 Miles of Horse Trails
Park Ranger (1) on Site

Mutual Mine Recreation Area
Campsites-non electric (13)
2 small restrooms (1 each from men/women)
Youth Group Area with 2 small restrooms (1 each from boys/girls)
Restrooms (2)

Camp Host/Volunteer Site (1)
Park Ranger (1) on Site
Hiking Trailhead ("C" &"D" Loops)
Fishing Pond w/Observation Boardwalk
Nature Trail

Holder Mine Recreation Area
Electric Campsites (27)
Bathhouse (1)
Primitive Hunt Camp Sites (200)
Camp Host/Volunteer (1)
OALE Officer Residence on Site
FFWCC Check Station
Pets Allowed on Site
Hiking Trailhead ("A" & "B" Loops)

HEADQUARTERS TRACT

McKethan Lake Day Use Area
Fee Area w/Honor Box
Covered Picnic Pavilions (3)
Restroom (1)
Paved Loop Road (1.5 miles)
Nature Trail (1.9 miles)
Canoe Launch
Camp Host/Volunteer site

Colonel Robins Day use Area
Picnic Tables
Grills
Restroom
Nature Trail (2.4 miles)

TWO MILE PRAIRIE TRACT

Bear Head Hammock Horse Trail (8.3 miles)
Primitive Camp Site (1)
Johnson Pond Trail (1.8 miles)
Observation Deck
Covered Picnic Pavilion (planned)
Birding & Trailwalker Trail
Oxbow Trail (1.5 miles)
Primitive Camping
Bluebird Trail (1.0 mile)

HOMOSASSA TRACT

Hiking, Biking, Hunting & Fishing
Rook Trails (2.7 miles) in construction
Birding & Trailwalker Trail
Observation Deck (planned)
Primitive Camping at Hog Pond (planned)

Exhibit K

Florida Department of Agriculture and Consumer Services
CHARLES H. BRONSON, Commissioner
The Capitol • Tallahassee, FL 32399-0800

Please Respond to:

Division of Forestry
Forest Management Bureau
3125 Conner Blvd., C25
Tallahassee, FL 32399-1650

FM
SL
WSF

June 13, 2001

MEMORANDUM

TO: Winnie Schreiber, Forestry Center Manager

FROM: Joann Phillips, State Lands Planning Coordinator

SUBJECT: Withlacoochee State Forest - Fire Management Plan

Attached is the approved WSF Fire Management Plan. Please call me at 850-414-9908 if you have any questions.

Enclosure

cc: Keith Mousel, Forestry Resource Administrator

JUN 18 2001

WITHLACOOCHEE STATE FOREST
Fire Management Plan

PREPARED BY

DIVISION OF FORESTRY

FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

May 2001

Approved by: _____ 5/28/01
Chief, Forest Management Date

Approved by: _____ 6/11/01
Chief, Forest Protection Date

WITHLACOOCHEE STATE FOREST
FIRE MANAGEMENT PLAN

TABLE OF CONTENTS

APPENDICES

WITHLACOOCHEE STATE FOREST
FIRE MANAGEMENT PLAN

I. PURPOSE

This plan will serve as a working tool, and dynamic, informational document outlining fire management procedures and goals on the Withlacoochee State Forest (WSF). It will serve as a reference source for the Division of Forestry (DOF) Forest Management and Fire Protection Bureaus. This plan was written by the Resource Section with contributions, input, and revision provided by members of the Operations Section including the Operations Administrator, Forest Area Supervisors, Senior Forester Rangers, and Forest Rangers.

As prescribed fire and wildfire policies change on the Forest, and within DOF, this plan will be updated to reflect those changes.

II. PRESENT CONDITION

The WSF is a 174,000 acre managed area divided into several distinct tracts. Represented on the Forest are the following FNAI Natural Community types: Sandhill, Scrub, Xeric Hammock, Upland Mixed Forest, Mesic Flatwoods, Scrubby Flatwoods, Prairie Hammock, Maritime Hammock, Hydric Hammock, Wet Flatwoods, Seepage Slope, Bottomland Forest, Floodplain Swamp, Strand Swamp, Slough, Basin Marsh, Depression Marsh, and Dome Swamp. The majority of these communities are either fire dependent or fire-maintained (Myers, R., 1992). Of primary concern to fire managers are the Sandhill, Scrub, Xeric Hammock, Upland Mixed Forest and Mesic, Scrubby, and Wet Flatwoods community types.

The Forest is designated for multiple use management, with uses including, but not limited to wildlife and timber management, watershed protection and recreation. Systems of both natural and artificial regeneration are used to maintain a sustainable timber resource on the Forest, each having specific influence on the burn regime. Prescribed fire is used to aid in promotion and maintenance of the ecosystem, including species of intrinsic floral and faunal value, as well as the timber resource.

III. FIRE HISTORY ON THE WITHLACOOCHEE STATE FOREST

Like much of the land in the southeastern U.S., fire has played an important part in the evolution of ecosystems and accompanying species composition of flora and fauna on the WSF. People have inhabited Florida for 10,000 years, or perhaps longer (Myers 1992). Before the intervention of prehistoric man it is estimated that lightning caused fires would burn off the upland pine areas approximately every 2-4 years (with the exception of scrub communities)(Tanner 1991). The exact frequency of lighting fires is a subject of debate. *Thunderstorms in Florida occur primarily from May-September and peak in midsummer (July-August). Lightning fires occur during the same time period, but tend to peak about a month earlier (mid-May through July). The pattern of acreage burned by lightning fires follows a similar trend to the numbers of fires; but tends to be skewed even more toward the early growing season (due to the dry condition of the fuels resulting from the seasonal drought which occurs at this time), with a late spring/early summer peak. From November to March, lightning fires do occur, but are uncommon* (Robbins and Myers, 1992). These early fires were, in most situations, of low intensity (due to frequency), removing the ground cover but not hurting the mature pine overstory.

Prior to the arrival of European settlers, Native Americans supplemented naturally occurring lighting fires with ignitions of their own. They used fire to clear out around their villages, drive game, improve access and occasionally in tribal conflict. As Native American populations grew, and tribes migrated, their use of fire affected a large and changing portion of the landscape. These Native Americans remained hunter-gatherers until approximately 800-1000 A.D. when they began developing a more sedentary agricultural system (Waldrop 1992). The movement of Native American tribes for game and crop land created variable patterns of fire frequency across the regional landscape.

In the period following the arrival of European settlers, sheep and cattle were grazed unfenced on what is now WSF. Numerous fires were set in late winter and early spring, presumably by the ranchers, in order to improve forage quality. Woods burning in the region continued until the 1900's when government agencies attempted to ban the use of fire in order to protect homes, forests and pine regeneration. A series of wildfires in the 1940's and 1950's prompted greater public acceptance of wildland prescribed fire use (Waldrop 1992).

The WSF consists of land originally owned privately, and sold to the federal government as the Withlacoochee Land Use Project as part of FDR's post depression New Deal. The lands which made up

the original WSF property were severely degraded from years of phosphate mining, truck farming, and heavy timber harvesting. Much of the property was in need of multi-level restoration. Initial reforestation efforts on the property were completed by 1937 (Wynne). It is reasonable to assume that if any prescribed burning occurred in this period, only areas being prepared for planting, or designated to remain as pasture were targeted. A fire suppression infrastructure was developed at this time as well, consisting of 357 miles of firebreaks and four 100-foot tall fire towers.

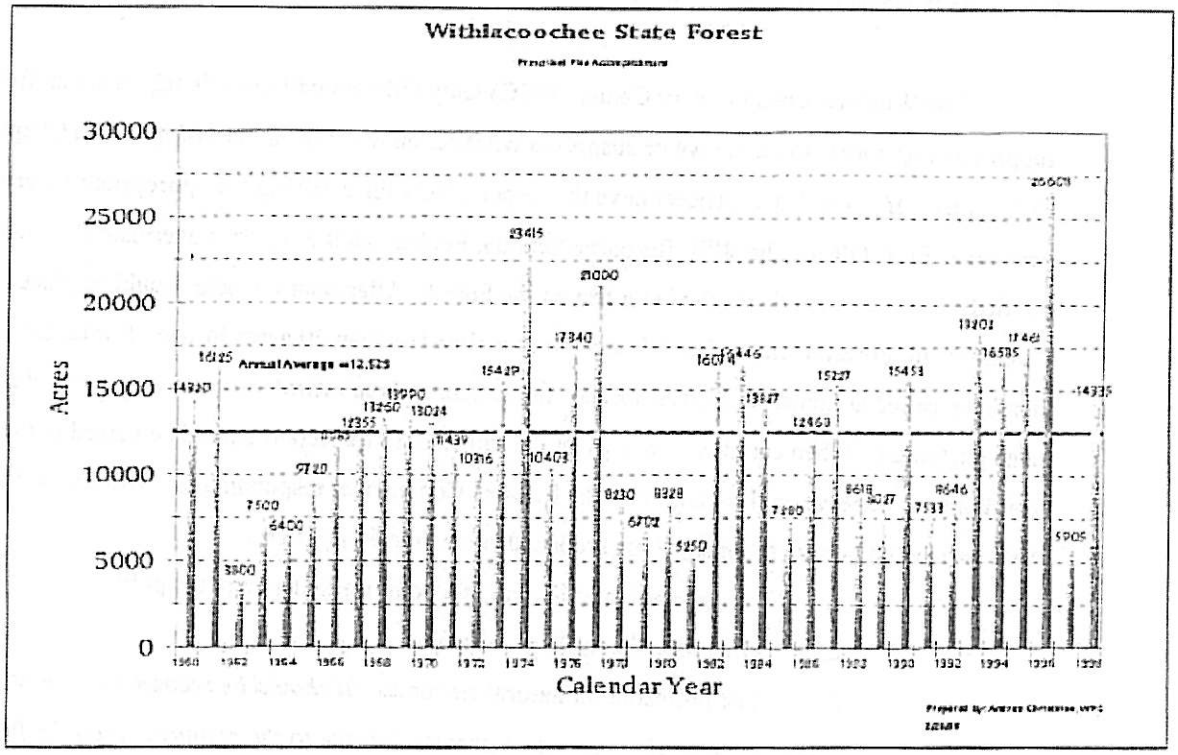
After the Withlacoochee property was purchased by the federal government through the Resettlement Administration in the 1930's, it was managed for cattle, timber, game wildlife, and recreation by the Soil Conservation Commission until 1954 when it came under the administrative wing of the U.S. Forest Service. It is likely that timber harvest which occurred during this period included the removal of RCW cavity trees. In 1958, the property (without mineral rights) was sold to the State of Florida for management by the Florida Forest Service (now the Division of Forestry).

A financial assessment of the forest written in 1966 provides insight into management views and properties for the property. "The Citrus Unit of the Forest, consisting of 40,930 acres, or 36% of the area is predominantly covered by non-commercial oak species. This is the habitat of one of the largest deer herds in the state, affording excellent hunting each season. The maintenance of this herd requires that much of the existing oak cover must be left undisturbed. Consequently, only part of this area can ever be converted to commercial tree species and contribute financially to the support of the WSF."(Coulter 1966). The likely management practices utilized to encourage this herd, especially encouragement and maintenance of the oak cover, probably included very little prescribed burning.

Fire management on the Forest from 1960 to the late 1980's mainly involved low-intensity dormant season backing fires intended for fuel reduction purposes. Extremely active wildfire seasons occurred during 1975, 1981, and 1985, resulting in very limited prescribed burning on the Forest. The annual acreage treated by fire was also strictly reduced in the period from 1978 through 1981 with the intention of preserving longleaf pine regeneration produced by a significant cone crop in 1977/78. In the mid to late 1980's fire management philosophies began to change to incorporate a broader spectrum of goals. Wildlife management burns increased through the 1980's, and in the early 1990's, higher intensity fires became more common.

In 1986, the Division's operational structure at WSF was altered to place the Fire Control and Resource Management units into the same branch. This change resulted in an increase in coordination and

cooperation between these two units, and has resulted in a trend of increased burning due to coordinated planning and availability of personnel. The first directive to schedule growing season burns for ecosysstem management occurred in 1989. However, for several years, implementation of this directive was limited due to highly restrictive weather parameters (Helm 1989), and an incomplete understanding of and lack of confidence in growing season burning. The 1990's also have marked a significant increase in growing and lightning season burning, as well as change in management philosophy to incorporate a broader spectrum of species which are considered significant to management of the Forest (wiregrass, gopher tortoise, fox squirrel, etc.).



The first aerial (helicopter and aerial ignition device) burn was completed in 1992 in the Citrus tract of the Forest. By 1997, aerial burning had increased to become the method by which 65% of WSF burn acreage is treated. Lower burn accomplishments in 1997 and 1998 resulted from significant , long-term drought; which resulted in a reduced number of available burn days, as well as the diversion of available prescribed fire personnel to wildfire suppression efforts during both the 1998 Florida wildfire emergency, and Mediterranean fruit fly control efforts in 1997 and 1998 (Appendix A).

The year 1996 marked our highest prescribed fire achievement with 26,608 acres burned. Each year State Forest staff come closer to implementing a true 3-4 year burn rotation on all tracts. The goal of the WSF Fire Management Program is to best mimic the natural fire regime that would have occurred in this region, while managing the needs of specific stands on the Forest, and accepting the degree of natural variability in the burn regime which would have occurred prior to human disturbance. Acreage goals are determined by the needs of the natural communities. The completion of well-planned, ecologically appropriate burns with achievable objectives will guide a burn program defined by quality, not quantity.

IV. WILDFIRE SUPPRESSION

The Withlacoochee Forestry Center (WFC) Duty Officers will immediately dispatch fire suppression resources to all known or suspected wildfires on the WSF in accordance with Chapter 2 of the *FIRE MANUAL*. The Duty Officers have the responsibility for notifying the appropriate supervisory personnel (FAS, OIC). The WSF Resource Section, Ecology Unit Forestry Supervisor II should also be notified when crews are dispatched to a fire on the Forest. After-hours, a note should be placed in the Ecology Unit Forestry Supervisor II's mailbox for fires less than 20 acres in size. For larger fires he/she should be called at home. In his/her absence the Resource Administrator should be contacted using the same guidelines. When completed, a copy of the Individual Fire Report should be placed in the Ecology Unit Forestry Supervisor II's mailbox. The Incident Commander responding to a wildfire on the WSF has three paramount considerations. These are listed below in priority order:

1. The protection of human life, both firefighters and the public.
2. The protection of improvements.
3. The protection of natural resources. *(It should be recognized that at times direct suppression tactics may cause greater damage to the resources than the fire would*

have.)

If a wildfire occurs on the WSF there are these alternative suppression strategies.

CONTAIN is defined as a suppression strategy where a fire is restricted to a certain area by using natural or constructed barriers that stop the fires spread under the prevailing and forecasted weather until it is out. This strategy allows the use of environmentally sensitive tactics that keep a wildfire from burning a large area or for a long duration.

CONTROL is defined as a suppression strategy where aggressive suppression tactics are used to establish firelines around a fire to halt spread and to extinguish all hot-spots until it is out. This alternative is used whenever there is a threat to human life, property, private lands, and/or critical natural or cultural resources. This strategy should also used when the district fire danger level dictates that crews not be involved with individual fires for any longer than absolutely necessary. Appropriate suppression action will be that which provides for the most reasonable probability of minimizing fire suppression cost and resource damage. Actions should be consistent with probable fire behavior, total fire load, potential resource and environmental impacts, safety and smoke management considerations. The Incident Command System (ICS) will be used for all suppression action (*BRSF Fire Management Plan*, 1994).

V. PRESCRIBED FIRE

The use of prescribed fire in the management of ecosystem resources on the WSF is necessary if the DOF is to fulfill its mission; *"To protect and manage Florida's Forest Resources through a stewardship ethic to assure these resources will be available for future generations."* The DOF has recognized the importance of prescribed fire management, and its use is addressed in Section 5.1 of the State Lands Handbook.

All prescribed fires on the State Forest will be carried out in order to meet clearly stated management objectives, including but not limited to: ecosystem management and restoration, fuel reduction, hardwood control, wiregrass seed production, site preparation, disease control, wildlife management, and silviculture. These management objectives as well as: maps of the areas scheduled to burn, weather parameters, and more can be found in the semi-annually updated "WSF Prescribed Fire Plan".

Each fire will have a burn prescription that will contain, as a minimum, the elements within the Division's form FC-5400-15 (Appendix B). Weather parameters for each prescribed burn will be selected in accordance with the DOF Prescribed Fires Standards listed in Section 5.1.4 of the State Lands Handbook. These standards (Appendix C) set parameters for the following weather parameters; relative humidity, fine fuel moisture, burning index, wind speed, Keech-Byram drought index, days since rain, temperature, dispersion, and mixing height. The plan must include the smoke screening procedure as outlined in Chapter 7, Appendix 2, of the *FIRE MANUAL*. The WSF Prescribed Fire Plan must be approved by the Resource Administrator and each burn must be conducted in compliance with the approved plan.

Only Certified Burners will be used to prepare burn plans and to supervise prescribed burns. In addition to being certified, all Burn Managers should complete a minimum training program which includes Interagency Basic Prescribed Fire, Florida Fire Behavior, and Standards for Survival. Prescribed fires will meet all provisions of Florida Statutes 590.12, 590.026, and Florida Administrative Code 51-2.0061. Prescription parameters should be followed on all prescribed burns. If one or more of the parameters exceeds acceptable limits a prescribed fire may need to be extinguished. This decision will be made by the Burn Manager with consultation from the Technical Advisor (if present) and will be based on whether or not objectives are still being met and on whether suppression action will cause more damage than the fire.

When it is decided to allow the burn to continue after a prescribed parameter is exceeded, the reasons must be documented and the results recorded in an evaluation report immediately following the burn.

If a prescribed burn can no longer be contained, it is a wildfire. Appropriate action must be taken in accordance with the Wildfire Suppression portion of this Fire Management Plan. Should fire occurrence within the district dictate that additional fire crews be required, prescribed burns will be secured and crews will be released for wildfire assignments.

A. Fire Weather

Daily Fire Weather readings and predictions are posted each morning at the WFC dispatch office, and announced by radio at 8:00am and updated at 2:00pm. Onsite fire-weather conditions on a given burn should be measured by either the Technical Advisor, or a person otherwise designated by the Burn Manager. The *DOF State Forest Handbook* Fire Weather Parameters should be followed at all times.

1. **Site-specific Drought Indices**

In recognition of the relative inaccuracy of calculation of a single drought index at the WFC Headquarters: district-wide drought indices will be calculated by the dispatch office only until such time as the Division's new, NWS/NOAA-coordinated drought index is available. The new system will provide more regionally specific drought index measurements.

2. **Soil Moisture**

The WSF Resource Section has obtained a soil moisture meter to monitor soil moisture on burn blocks prior to and following treatment of the site with fire. The data obtained through use of this equipment will provide greater insight into the factors affecting floral response to fire in specific situations.

B. **Season of Burn/Burn Type**

There are two seasons during which prescribed burning will take place; the growing season and the dormant season (locally defined as November 1 through February 28). Different burn objectives (hardwood control, stimulation of wiregrass seed production, etc.) can be accomplished through the wise use of fire during each season.

Table 1.: WSF Seasonal Prescribed Fire Goals

TRACT	GROWING SEASON		DORMANT SEASON		BURN ROTATION
	%	Acreage	%	Acreage	
Citrus	75%	7,688	25%	2,563	4 years
Croom	75%	4,405	25%	1,468	3.5 years
Richloam	10%	1,400	90%	14,000	4 years
Baird	0%		100%	Variable	N/A
Homosassa		Variable		Variable	N/A
Two Mile Prairie		Variable		Variable	N/A
Jumper Creek		Variable		Variable	N/A

1. Growing Season Burns

The growing season (defined locally as March 1 through October 30) is broken into two distinct burn periods: spring burning and lightning season burning. Traditionally, Florida receives its greatest number of lightning strikes in the period from May through August, also known as the lightning season. Twentieth century records have shown an average of 1000 lightning-caused fires occurring in Florida during this period annually (Myers 1992). To mimic the fire regime that would have occurred naturally (while accounting for logistic requirements), most prescribed fire should be applied from March though August. Application of prescribed fire during March and April requires the consideration of vegetative stress resulting from overwintering and the spring drought. Application of prescribed fire during August requires consideration of the stress created for a tree if its foliage is lost during the period of active photosynthesis to accumulate winter root reserves.

Historically, on the Forest, the majority of growing season burn accomplishment would occur in March and April, however (due primarily to logistic requirements), in recent years, a slight increase in lightning season burn acreage has occurred, and is encouraged. Annual growing season burn acreage has been steadily increasing in the last five years.

2. Dormant Season Burns

Historically on the Forest, the vast majority of prescribed burning occurred during the dormant season. Past management philosophies as well as an incomplete understanding of the importance of prescribed fire to both hardwood control, and the regeneration of groundcover species, created a burn program which depended upon cool, low-intensity, dormant season burns (Komarek 1965). The result in sandhill tracts of the Forest has been the growth of a scattered to dense midstory of upland oak species, and in some areas, the initial stages of succession to hammock. In flatwoods tracts, the result has been development of a palmetto/gallberry layer, or "rough" which has shaded-out most groundcover species, and which results in an artificially high level of fire intensity from both wildfires and prescribed fires. Dormant season burns are still heavily utilized in areas with excessive fuel accumulation, especially the Richloam and Baird tracts. Logistical requirements and ecosystem demands will continue to incorporate dormant season burning into the WSF prescribed fire program for the foreseeable future.

3. Night Burns

Historically, night burning was utilized to a high degree in the accomplishment of dormant season burning. If dispersion allows , and approval is given by the District OIC, night burning remains a viable option to meet burn prescription objectives.

4. **Site-preparation Burns**

Prior to reforestation, sites on the Forest require some form of site preparation. Prescribed fire is being increasingly addressed as an important upland site preparation tool. Site preparation burn requests are submitted to the Operations Section at the semi-annual prescribed fire meeting (scheduled by the Resource Section Ecology Unit). Unless otherwise specified, site preparation burns are to take precedence over other burn requests, and should receive a higher priority than many other forestry center activities in recognition of the fact that many successional forest management activities are dependent upon the completion of these burns. Site preparation burns may take place when burn conditions may otherwise be too severe for completion of other burns.

5. **Training Burns**

The proximity of the Withlacoochee Training Center creates a high level of interaction with prescribed fire and wildfire training opportunities . WSF Prescribed Fire Program provisions have been made for established annual training sessions. Requests for burn block designation for other events or training must be given to the Resource Section a minimum of three weeks prior to the scheduled event. No training or educational burns should take place without coordination with the Resource Section.

a. IABPFS

The Interagency Basic Prescribed Fire Training School is held at the Withlacoochee Training Center at least once per year. Permanent Burn Blocks have been established on the Headquarters Tract for use by the School (Appendix D). The Ecology Unit is responsible for the pre-class annual burn block selection as well as preparation of complete burn prescriptions for each burn block. Whenever possible, a representative from the Ecology Unit will be present as Technical Advisor for the training burns. The blocks are currently established to perpetuate a 3-year burn regime.

b. BFCT

Basic Fire Control Training is held at the Training Center on a annual to semiannual basis. A forty acre block of sandhill community has been set aside for Tractor Defense, Engine Tactics and Hand Tool Use training (Appendix D). A blanket burn prescription has been written for use on days that these two training sessions take place. A portion of the designated block is burned for each semi-annual class. Re-designation of the BFCT training block may only be done through consultation with the Ecology Unit.

C. **Smoke Management**

Smoke management is a critical part of both wildfire and prescribed fire management. Public education dealing with prescribed fire related smoke complaints , including the use of media, as well as door-to-door public contact is an important part of smoke management. Caution must be exercised to prevent a public safety hazard, or health hazard from the smoke of any prescribed burn or wildfire. Prescribed burns must pass the smoke screening procedure or receive approval from the District OIC. If smoke threatens to cause a safety hazard or public nuisance, then direct, immediate suppression action will be taken.

The Burn Manager or his/her designee is responsible for contacting the Florida Highway Patrol to request placement of signs when smoke from a prescribed fire or wildfire threatens to reduce visibility on a main road or highway. Additional smoke signs are available at the WFC Headquarters and the Bushnell Work Center.

According to current Fire Protection policy, every effort will be made to prevent fires from entering areas of muck soils during dry periods. If muck should be ignited, suppression efforts will be taken as deemed necessary by the Center Manager or his/her designee.

D. **Culturally Sensitive Areas**

Several sites of historical, cultural, and archaeological significance have been identified on the Forest. These sites are protected according to the guidelines established by the Division of Historical Resources, Florida Administrative Code Chapter 1A-44, and Florida Statutes Chapters 267, and 872. On newly acquired properties, an archaeological assessment should be performed to determine the locations of sensitive sites prior to the establishment of permanent firelines. Due to the extremely sensitive nature of these sites, site maps are considered restricted information, and are not publicly distributed with this Fire

Management Plan. To insure protection of these sites, WSF staff will have up to date site maps.

E. **Environmentally Sensitive Areas**

On the WSF the primary environmentally sensitive areas are red-cockaded woodpecker (RCW) trees or cluster sites. Attached are maps (Appendices E & F) showing the known red-cockaded woodpecker cluster locations. The Forest also supports three known southern bald eagle nest sites. Fire management in the nest sites should follow the map (Appendix G) and guidelines included in Appendix H.1, H.2. All State Forest fire crews will carry an updated version of these maps in their vehicle. The use of heavy equipment should be avoided anytime that significant environmental degradation may result. Examples of sensitive areas not highlighted on the map include, exotic species infestations, scrub jay nest areas, wetlands, research sites, and ecotones. Environmentally sensitive areas will be defined, and location designated on each burn prescription.

1. **Endangered Species**

The WSF provides habitat for populations of 74 federally and state listed species (WSF Five Year Resource Management Plan, 1996). Of these species, the federally endangered red-cockaded woodpecker most directly affects fire management on the Forest. Populations of RCW's are found on both the Citrus and Croom tracts of the Forest. RCW habitat maintenance is dependant upon a 2-5 year burn regime (Krusak et. al, 1995). Individual RCW trees are treated with fire prior to habitat management burns to prevent the highly flammable resin from igniting and burning into the cavity (Appendix I). All members of burn crews participating on either a wildfire or a prescribed burn in an RCW area should consider location and protection of the cavity trees while managing the burn. Information on trees with the greatest potential for ignition is available from the Resource Section, Ecology Unit.

Most listed plants currently identified on the Forest are hammock species; and as such are not significantly affected by the fire management program. As populations of fire-adapted listed plants are identified, individual management plans/strategies will be determined.

2. **Exotic Species**

The main exotic species of concern with reference to prescribed fire is cogongrass, *Imperata cylindrica*. Found on all tracts of the Forest, cogongrass is a highly invasive, fire-adapted grass.

Cogongrass directly affects our prescribed fire program in four ways.

a. *Placement of Firelines* - As stated in the firelines section of this plan (Section VI.H.), presence of cogongrass infestations will have an effect on placement of firelines. Efforts should be made to avoid unnecessary or excessive disturbance of infestations to prevent further spread of this species.

b. *Effect on Fire Behavior* - It is well documented that cogongrass alters fire behavior and intensity when burned. The presence of cogongrass in a burn block should be noted and considered when determining burn technique. Larger, contiguous stands of cogongrass may alter burn micro-sites sufficiently to harm overstory, mid-story, and understory flora.

c. *Integrated Control Methods* - Ongoing efforts are in place to attempt control of cogongrass infestations on the Forest. Integrated control of this species involves a combination of chemical (herbicide), mechanical (discing), and pyrolitic (prescribed fire) methods. Infestation sites undergoing treatment may be included as parts of larger burn blocks, or as individual burns scheduled specifically for exotic species management.

d. *Newly Identified Infestations* - Upon discovery of a remotely located, or suspected new infestation, WFC employees should note the infestation location and place a map indicating the infestation in the Ecology Unit Forester's mailbox.

3. Research Projects

State Forest lands contain resources which can make them ideal locations for many forms of legitimate research. Research projects which have been fully approved by the Division according to the policy outlined in the *DOF State Forest Handbook* (Section 4.8), will be permitted on the Forest when reasonable. Occasionally, completion of the research requires maintenance of the designated plot with fire. The Resource and Operations Sections will coordinate to fulfill any agreed-upon fire related research responsibilities. Ongoing research plots will be noted on appropriate burn prescriptions.

4. Snags

Potential fire hazard snags along the edges of burns should be raked around prior to burning. Remaining snags determined to be a hazard during the burn should be extinguished with water whenever possible. Snags should only be cut with a chainsaw, or pushed with a tractor as a last result when they pose a direct threat to either public safety or containment of the burn (*DOF State Forest Handbook* Section

5.1.2).

5. Ecotones

Efforts should be made to avoid placement of firelines through ecologically and biologically significant ecotones in recognition of the greater and unique diversity which exists there (*DOF State Forest Handbook*, Section 5.1.2). Ecotones are the transitional areas between community types (eg. transition areas between uplands and wetlands).

VI. FIRE BREAKS AND FIRELINES

During wildfire suppression, emphasis will be placed on the use of water and foam, permanent fire breaks, natural barriers and existing roads and trails, and older, partially recovered plow lines for firelines when resources, life, property and firefighter safety allow. Plowed and/or bulldozed lines will be used only when they prevent the greatest damage to persons, property, or resources and minimize threats to firefighters. Plowed and bulldozed lines will be rehabilitated and BMP's implemented as soon as practical after the fire is suppressed. The long range goal for fireline construction/use on the Forest is to reduce the total number of present and future firelines, and avoid the disturbance created by the placement of new firelines. The following fireline types are listed in priority of preference for use on the Forest.

A. Permanent Firelines

A system of permanent firebreaks is developed and maintained around and within the boundaries of the WSF to guard against escape of both prescribed burns and wildfires. Firebreaks consist of natural barriers, roads, trails, permanent grass strips, and disced perimeter lines. All firebreaks will meet the established Best Management Practice (BMP) criteria. New tracts acquired through the CARL program or other acquisition processes will have perimeter lines established as part of the initial management period.

B. Historic Firelines

Old, historic firelines cross the Forest landscape at regular intervals along stand boundaries, property lines, closed roads, and horse trails. When a new fireline is necessary, every effort should be made to place that line over any old firelines which are reasonably located.

C. **Disced Firelines**

Use of discing as a fire line construction method has increased on the Forest in recent years. When reasonable in consideration of all Forest-use issues (road access, equipment availability, necessary fire line width, etc.) discs should be used in fire line construction in preference to fire plows. The wide, shallow disturbance created by discing creates a less devastating, shorter-term impact than plowing.

D. **Plowed Firelines**

When necessary, fire plows will be used to establish firebreaks. Plow lines should receive the highest priority for rehabilitation.

E. **Tractor Fireline Standards:**

1. Use the minimum number of firelines necessary to contain the fire.
2. Fireline depth should be no greater than the minimum required to contain the fire.
3. Firelines should not be located in environmentally sensitive sites unless required by the emergency nature of the incident. Off-set firelines well to the side of the sensitive area if possible.
4. Firelines should be oriented along contours of slopes whenever possible.
5. Firelines will not be located within 200 feet of RCW trees or cluster sites unless the potential damage from the fire exceeds impacts from tractor firelines. Federal guidelines require that a 200 foot buffer zone be maintained around all trees in each RCW cluster. No soil or ground disturbing activity should occur within this buffer zone.
6. Firelines will not bisect, or tie into waterways or riparian zones, or impact significant or potentially significant cultural resource sites, or be placed downhill at right angles to steep slopes unless required by the emergency nature of the incident. All firelines will be stabilized and/or rehabilitated following the emergency suppression action.

F. **Fireline Rehabilitation**

In situations where use of plow is unavoidable in creation of a fire line, the fireline will be treated with the re-work harrow or other appropriate equipment within three months of initial disturbance. This applies to firelines created on State lands for both prescribed fire and wildfire management. The WSF Resource Section and Operations Section will work together in the development of an official policy on

rehabilitation of firelines.

Time permitting, historically placed firelines will be re-worked as they are designated. This action will help correct past soil disturbance and prevent channelization of rainwater.

G. Field Trial Runs

The recreational Field Trial Runs located in the southern portion of the Citrus Tract require unique treatment. To avoid disturbance of the grassy runs, any fire line placed on a run will be placed in the following manner: the line will be created with a fire plow set to one edge of the run, disturbing only approximately 1/4 of the established grasses in the run. This method will allow the runs to remain passable for the field trial equipment. Field Trial Run location will be designated on appropriate burn prescriptions.

H. Exotic Species

It is well documented that soil disturbance in sites infested by cogongrass increases the spread and vigor of this Category I invasive exotic pest plant. Placement of firelines through cogongrass infestations should only occur as a last resort in the establishment of permanent property perimeter firelines, or in the protection of resources from wildfire. In no other situation should a fireline be placed through an infestation site without prior consultation with the Ecology Unit. In any situation where disturbance of cogongrass does occur, the disturbance site should be mapped, and map given to the Ecology Unit for tracking purposes. Any equipment used in disturbance of an infested site should be cleaned to the best of the operator's ability to remove root and rhizome-contaminated soil and prevent creation of new infestations.

VII. PERSONAL PROTECTIVE EQUIPMENT

Personnel involved in wildfire suppression and prescribed fire will wear all personal protective equipment as outlined in the *Division's Policy & Procedure Manual*, Section 225.216, and Chapter 235.

VIII. BURN EVALUATION

Conducting burn evaluations is almost as important as the completion of the burns themselves. Several evaluation methods are in place for data collection on the Forest.

A. Burn-day

1. Pre-burn

Collection of specific pre-burn measurements will facilitate better interpretation of burn success. Measurements such as pre-burn duff depth, fuel moisture, and soil moisture will be collected as is reasonable on burns in all tracts.

The Burn-day Evaluation Form (Appendix J) initially developed by the Sumter Forest Area, WFC, will be completed as fully as possible on each burn on the Forest by either the Burn Manager or his/her designee. This form will be attached to the burn prescription when it is turned in to the Ecology Unit. Whenever possible, a representative of the Ecology Unit will be present in the field on the burn-day. The representative will assume the role of Technical Advisor on the burn unless otherwise directed by the Burn Manager.

B. Post Burn

Post Prescribed Burn Evaluation forms will be completed by the Ecology Unit on all burns on the Forest. Burn sites will be visited at the following intervals: 1 week, 2 months, 6 months, 1 year, and 2 years post-burn (*DOF State Forest Handbook*, Section 5.1.1.2). At each site-visit a Post Prescribed Burn Evaluation form will be completed documenting fuel reduction, stem char, needle scorch, vegetative recovery, duff consumption, and specific notes of interest.

Post Prescribed Burn Evaluation forms (Appendix K) will be attached to the original completed burn prescription and filed by the Ecology Unit. These records are intended to provide data for future management decisions.

C. Photo-Monitoring

Two photo-monitoring plots will be established by the Ecology Unit per tract (at minimum) to evaluate the effects of fire on ecosystem restoration and maintenance. Per tract; one plot will monitor a site which has had fire excluded for several years, and one plot will monitor plots which have had a regular

burn regime. Photo-plots will be established according to the *DOF State Forest Handbook* (Section 6.7) photo-monitoring protocol. As unusual or significant prescribed-fire related issues are isolated, photo monitoring will be implemented as necessary.

D. Botanical Monitoring protocol

Lake Wales Ridge State Forest has developed two prescribed fire vegetation monitoring protocols which have been modified for implementation at WSF. The Sandhill Monitoring Protocol for 10X25m permanent plots (Appendix L) will be established by the Ecology Unit, at minimum, in two sites on each of the Citrus and Croom tracts, and modified for establishment on the Richloam Tract. The Scaled-down Sandhill Monitoring Protocol for 10X10m permanent plots will be established/modified to monitor issues of incidental interest on tracts as determined necessary. One purpose of this monitoring effort will be to determine vegetative species presence and relative abundance as affected by DOF's land management practices.

IX. DATA MANAGEMENT

A. Seasonal burn plans

The Ecology Unit of the Resource Section will select areas for burning with input from other members of the Resource Section, the Operations Section, and the Recreation Department. The Ecology Unit will prepare and review prescriptions for each burn. Burn plans for CARL tracts will be prepared by the Senior Foresters in charge of field management of each tract. Those burn plans will be given to the Ecology Unit for review and implemented by the Operations Section.

Plans for dormant season burns will be completed by October 1 each year. Plans for growing season burns will be completed by February 1 each year. Individual burn plans will be distributed in conjunction with the seasonally-updated WSF Prescribed Fire Plan which outlines season, year, and tract-specific issues affecting burn assignments and objectives. This plan is prepared by the WSF Ecology Unit.

B. Seasonal Meetings

Prescribed fire planning meetings will be held semi-annually at a minimum. Attendees will include the Resource Administrator, Operations Administrator, WSF Forest Ecologist, Ecology Forester, Forest Biologist, Timber Management Forester, CARL Lands Senior Foresters, Sumter Area FAS and Senior Ranger/s, Citrus Area FAS and Senior Ranger/s, and Pasco Area FAS. Seasonal burn plans will be distributed at these meetings, and discussion should include previous season accomplishment and challenges, changes in procedure, and updated goals.

C. Accomplishment Reports

It is the responsibility of the Forest Area Supervisors to return the completed burn prescription forms with burn-day evaluation forms attached to the Ecology Forester following full, or partial completion of each burn. Monthly State Forest Accomplishment report acreage figures will be determined from these returned prescriptions. The completed prescriptions and evaluations will be turned in by the last day of each month.

X. PUBLIC EDUCATION

Public education is an important part of the present and future success of prescribed burning.

A. Media

The Ecology Unit of the Resource Section, WSF is responsible for the pertinent media contacts throughout the prescribed fire season.

B. Presentations

Presentations on fire ecology and fire management will be given to professional organizations and community groups on a periodic basis throughout each year.

WITHLACOOCHEE STATE FOREST FIRE MANAGEMENT PLAN
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Table : Nine year Prescribed Fire History for Withlacoochee State Forest Showing Acres Burned by Year and Month in Croom, Citrus, and Richloam Tracts.

Table A

CROOM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1991	0	0	43	0	0	520	0	550	0	0	0	940	2053
1992	0	0	230	453	43	155	0	0	0	720	0	960	2561
1993	2620	1600	0	429	590	0	0	622	800	0	0	300	6961
1994	3000	530	0	0	0	0	180	122	0	0	0	530	4362
1995	0	1200	2410	0	0	0	0	0	0	0	0	1157	4767
1996	1145	0	1570	1330	0	0	0	0	0	0	0	1213	5258
1997	0	0	0	0	0	0	0	0	0	0	0	1400	1400
1998	0	1312	0	0	0	250	0	230	0	0	0	300	2092
1999	2350	310	0	0	0	0	2649	0	0	0	485	0	5794
TOTAL	9115	4952	4253	2212	633	925	2829	1524	800	720	485	6800	

Table B

CITRUS	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1991	0	0	0	0	148	518	415	820	175	0	230	1274	3580
1992	4555	565	0	387	260	0	0	0	0	0	0	30	5797
1993	262	2351	169	1025	248	0	1760	0	488	105	0	0	6408
1994	3575	1086	0	0	113	0	0	193	0	63	0	5500	10530
1995	0	0	0	1820	0	0	180	0	110	0	370	0	2480
1996	4855	0	580	2640	308	1420	0	0	0	75	0	2110	11988
1997	710	275	0	0	0	0	0	0	0	60	0	880	1925
1998	1470	1070	0	0	0	0	160	570	0	0	0	918	4188
1999	980	610	20	0	0	400	5315	0	0	0	1905	0	9230
TOTAL	16407	5957	769	5872	1077	2338	7830	1583	773	303	2505	10712	

Table C

RICHLOAM	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
1991	0	0	0	0	0	209	0	0	100	844	747	0	1900
1992	0	0	0	0	0	0	0	0	0	288	0	0	288
1993	0	3840	0	429	0	0	0	0	0	0	0	564	4833
1994	900	1407	0	0	0	0	0	0	0	0	0	0	2307
1995	1000	5800	200	0	0	0	0	0	0	0	610	300	7910
1996	5520	1870	0	170	680	0	22	0	0	0	0	0	8262
1997	2230	0	0	0	0	0	0	0	0	0	0	350	2580
1998	4850	2994	0	0	0	0	0	0	0	0	480	844	9168
1999	2921	673	200	0	0	0	0	0	0	0	0	160	3954
TOTAL	17421	16584	400	599	680	209	22	0	100	1132	1837	2218	

Shaded background indicates Growing Season Burn Period.

APPENDIX B

PRESCRIBED BURNING PLAN (Prescription)

District:	Authorization Number
Landowner:	Address:
Telephone Number	S: T. R. County:
Acres to Burn:	Distance to Plow: Previous Burn Date:
Stand Prescription:	
Overstory Type:	Height to Bottom of Crown:
Understory Type:	
Fuel Description:	Topography and Soil:
Purpose of Burn:	
Burn Objectives:	
Firing Techniques & Ignition Methods:	
Personnel Needs:	Equipment Needs
Maximum Crown Scorch Acceptable:	Passed Smoke Screening System:
Listed Possible Smoke-Sensitive Areas	
Special Precautions:	
Adjacent Landowners to Notify	

MONITORING & EVALUATION PROCEDURES

PRE-BURN	BURN	POST BURN

WEATHER FACTORS	PREFERRED	ACTUAL
Surface Winds		
Transport Winds		
Minimum Mixing Height		
Dispersion Index (DAY)		
Dispersion Index (NIGHT)		
Maximum Temperature		
Minimum Relative Humidity		
Fine Fuel Moisture		
Rate of Spread		
Starting Time		
Burn Technique		
Flame Length		

Days Since Rain: Date Burned: Distance Plowed:

PRE-BURN CHECKLIST

FIRE BOSS: Initial each item to indicate compliance.

- ☐ All prescription requisites met (preparation and day of burn).
- ☐ Authorization obtained.
- ☐ Adjacent landowners notified within past seven days of plan to burn.
- ☐ Local contacts made day of burn to advise (FHP, SO, Fire Dept., media, etc.)
- ☐ Smoke screening performed and documented.
- ☐ All equipment required on scene and fully operational.
- ☐ Each crew member has proper personal gear and clothing.

CREW BRIEFING

- ☐ Objectives of burn.
- ☐ Exact area of burn.
- ☐ Hazards discussed (volatile fuels, spotting potential, weak points in perimeter lines, terrain features, etc.)
- ☐ Crew Assignments made.
- ☐ Ignition technique and pattern. Holding method(s).
- ☐ Location of extra equipment, fuel, water, vehicle keys.
- ☐ Authority and communications
- ☐ Contingencies covered including escape routes or procedures.
- ☐ Sources of nearest assistance. Nearest phone and emergency numbers
- ☐ Special instructions regarding smoke management, contact with the public and others.
- ☐ Questions
- ☐ Crew members given opportunity to decline participation (is there anything that is going to prevent full physical performance?).

Prescription Done by: Certification Number:

Title: Date:

Prescribed Fire Standards
Florida Division of Forestry
1997

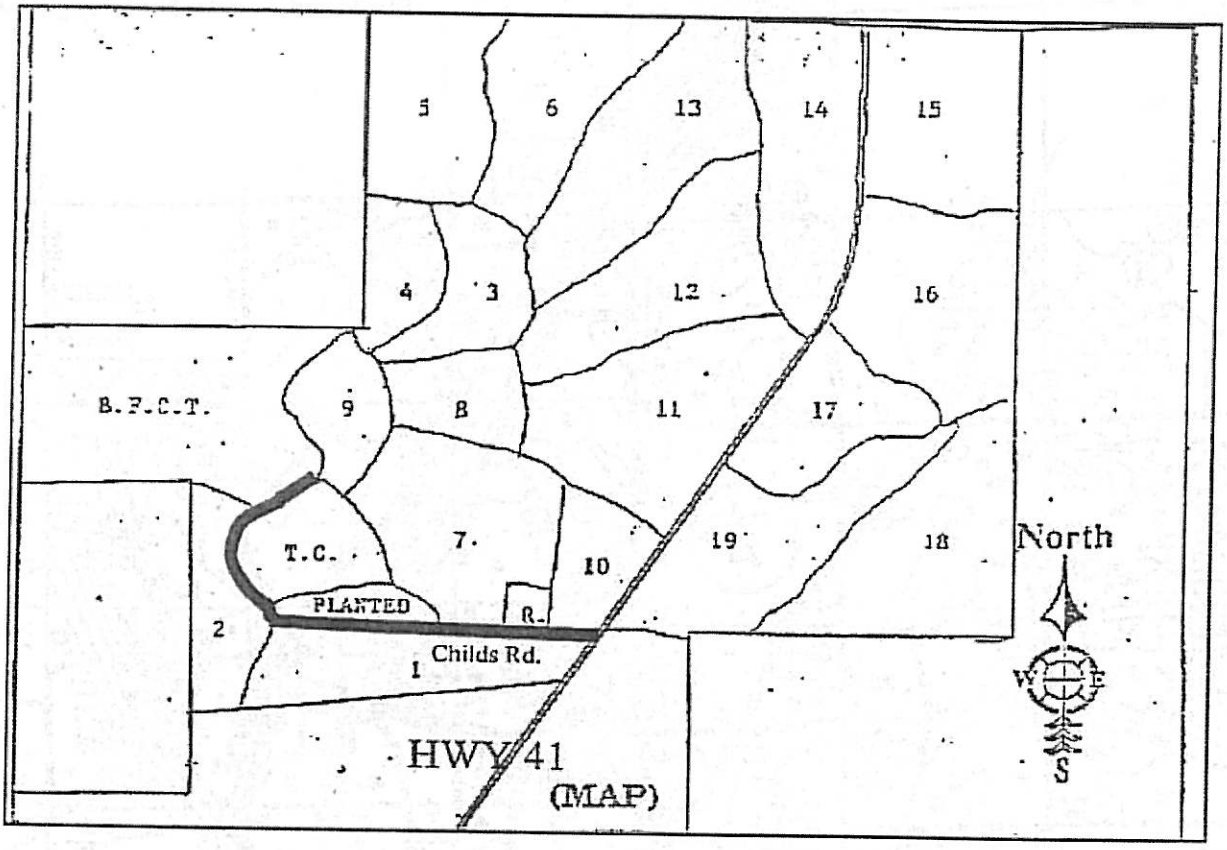
Parameter	NARRATIVE	
	Ground Ignition	Aerial Ignition
*1. Relative Humidity	30% Minimum. No ignitions when RH is predicted to be less than 30%.	35% Minimum for Aerial Ignition. No aerial ignitions when RH is predicted to be less than 35%.
*2. Fuel Moisture	Fuel moisture will be determined based on the predicted fine fuel moisture, fine fuel moisture tables or by direct measurement. Fuel moisture minimum of 6% is required for all DOF burns.	Fuel moisture will be determined based on the predicted fine fuel moisture, fine fuel moisture tables or by direct measurement. Fuel moisture minimum of 8% is required for all DOF Aerial Ignition burns.
*3. Burning Index	All prescribed burns should be conducted with a Burning Index below 85 unless approved by the local district/center manager or the OIC.	All prescribed burns should be conducted with a Burning Index below 80 unless approved by the local district/center manager or the OIC.
*4. Wind Speed	The forecasted 20 foot wind speeds from the National Weather Service shall not exceed 18 mph unless approved by the district/center manager or the OIC.	The forecasted 20 foot wind speeds from the National Weather Service shall not exceed 18 mph unless approved by the district/center manager or the OIC.
*5. Drought Index & Days Since Rain (site preparation and pile burning excepted)	The Keetch-Byram Drought Index(KBDI) should not exceed 650 unless approved by the local unit manager and documented on the prescription. Days since last rain should not exceed 10 days with the KBDI below 650. If the KBDI is above 650 and the days since rain exceeds 5 days, no burning.	The Keetch-Byram Drought Index(KBDI) should not exceed 650 unless approved by the local unit manager and documented on the prescription. Days since last rain should not exceed 10 days with the KBDI below 650. If the KBDI is above 650 and the days since rain exceeds 5 days, no burning.
*6. Temperature	All prescribed burns will be conducted with a temperature below 95 degrees F. Any burn that is planned with a temperature in excess of 95 degrees will require center/district manager approval.	All prescribed burns will be conducted with a temperature below 95 degrees F. Any burn that is planned with a temperature in excess of 95 degrees will require center/district manager approval.

7. Smoke	All burns will be conducted with a transport wind speed of at least 4 miles per hour, a mixing height in excess of 1700 feet and a dispersion index above 30 for daytime. Any burn conducted at night will require a dispersion of 6 with no transport wind speed or mixing height requirement.	All burns will be conducted with a transport wind speed of at least 4 miles per hour, a mixing height in excess of 1700 feet and a dispersion index above 30 for daytime. Any burn conducted at night will require a dispersion of 6 with no transport wind speed or mixing height requirement.
8. Crew Training & Certifications	The burn boss on all DOF burns will be a certified burn manager, and have successfully completed the Inter-Agency Prescribed Fire Course.	The burn boss on all DOF burns will be a certified burn manager, and have successfully completed the Inter-Agency Prescribed Fire Course.
9. Post Burn Evaluations	All burns conducted by DOF personnel will be evaluated immediately after the burn to determine (where possible) if the objectives for the burn were met, and if the prescription was followed. Long term evaluation/monitoring on state lands is encouraged. Monitoring should continue until the next burn, when the process will start all over again. This will assist the Division in determining if our fuels management and ecosystems management programs are achieving their goals.	All burns conducted by DOF personnel will be evaluated immediately after the burn to determine (where possible) if the objectives for the burn were met, and if the prescription was followed. Long term evaluation/monitoring on state lands is encouraged. Monitoring should continue until the next burn, when the process will start all over again. This will assist the Division in determining if our fuels management and ecosystems management programs are achieving their goals.
10. Dispersion Index	A Dispersion Index (DI) of 75 or greater indicates that the atmospheric stability will support erratic fire behavior. No ignitions when DI exceeds 80 without district manager or OIC approval.	No ignitions when DI exceeds 80 without district manager or OIC approval.

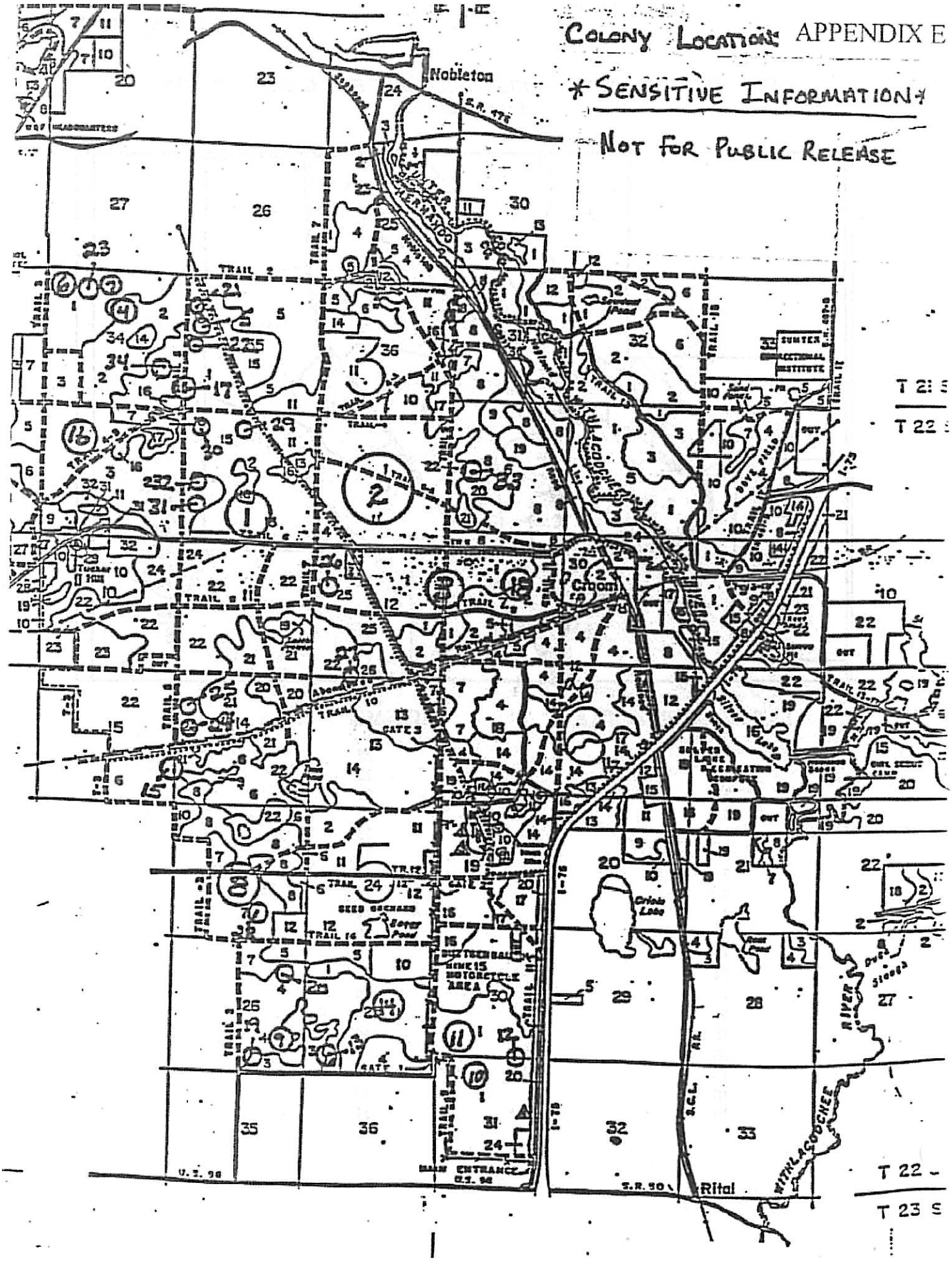
The parameter for each section can be exceeded only if the local district/center manager or OIC approves the exception.

*Parameters 1 thru 6: When 2, or more, of these parameters are at the extreme danger end of their guidelines, consider this a red flag warning. Also, young timber/plantations may require special considerations.

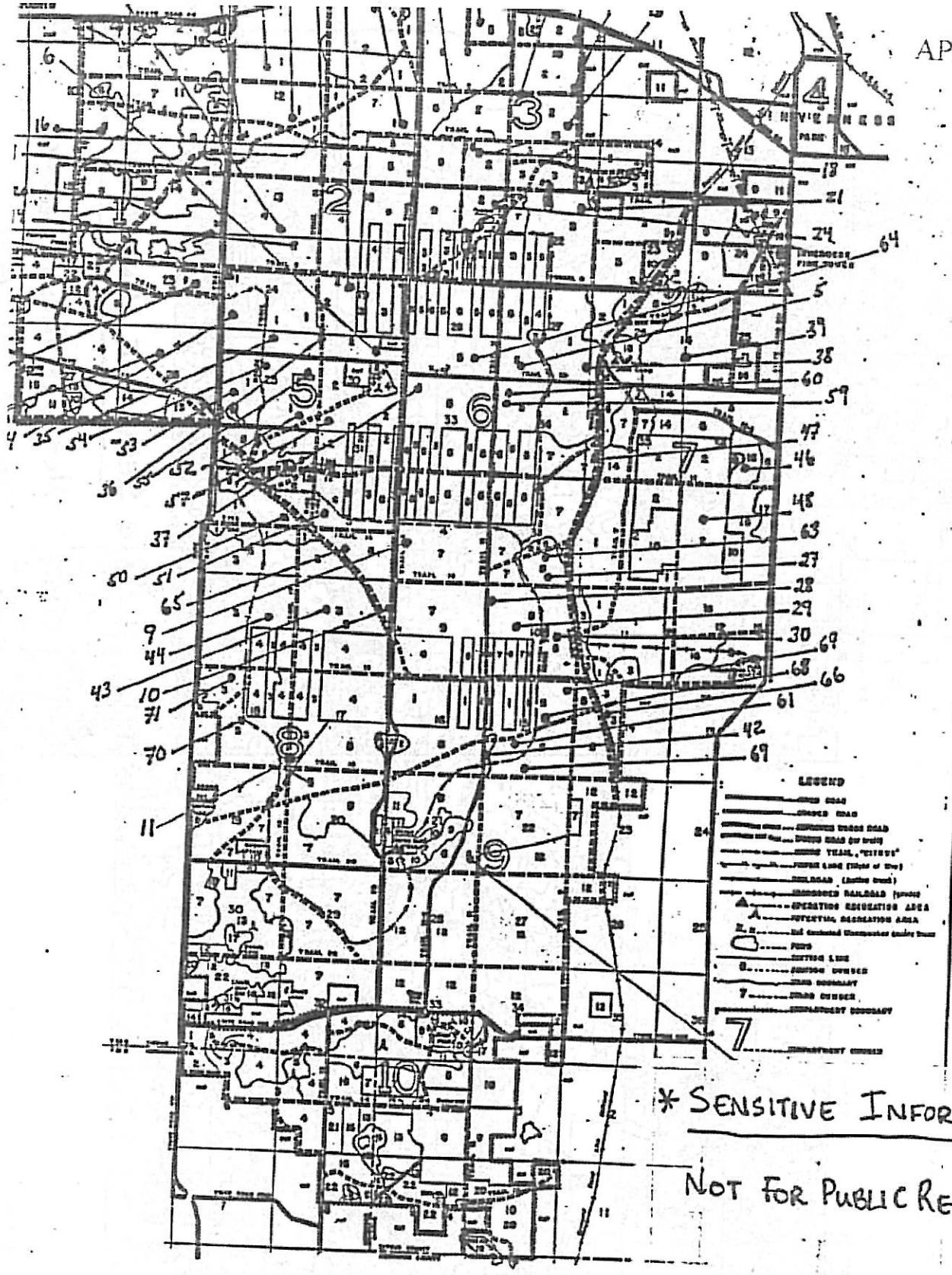
BASIC INTERAGENCY PRESCRIBED FIRE/ BASIC FIRE CONTROL TRAINING
BURN BLOCKS



L.A.B.P.F.S. BURN BLOCK #	ACREAGE
1	25
2	22
3	20
4	19
5	33
6	32
7	40
8	16
9	18
10	16
11	45
12	42
13	36
14	35
15	44
16	47
17	22
18	54
19	51


Colony Location: APPENDIX E
Sensitive Information
Not for Public Release
Nobleton
Croom
Rital
T 21 S
T 22 S
T 22 -
T 23 S

APPENDIX F



SENSITIVE INFORMATION

NOT FOR PUBLIC RELEASE

CITRUS TRACT

WITHLACOOCHEE STATE FOREST

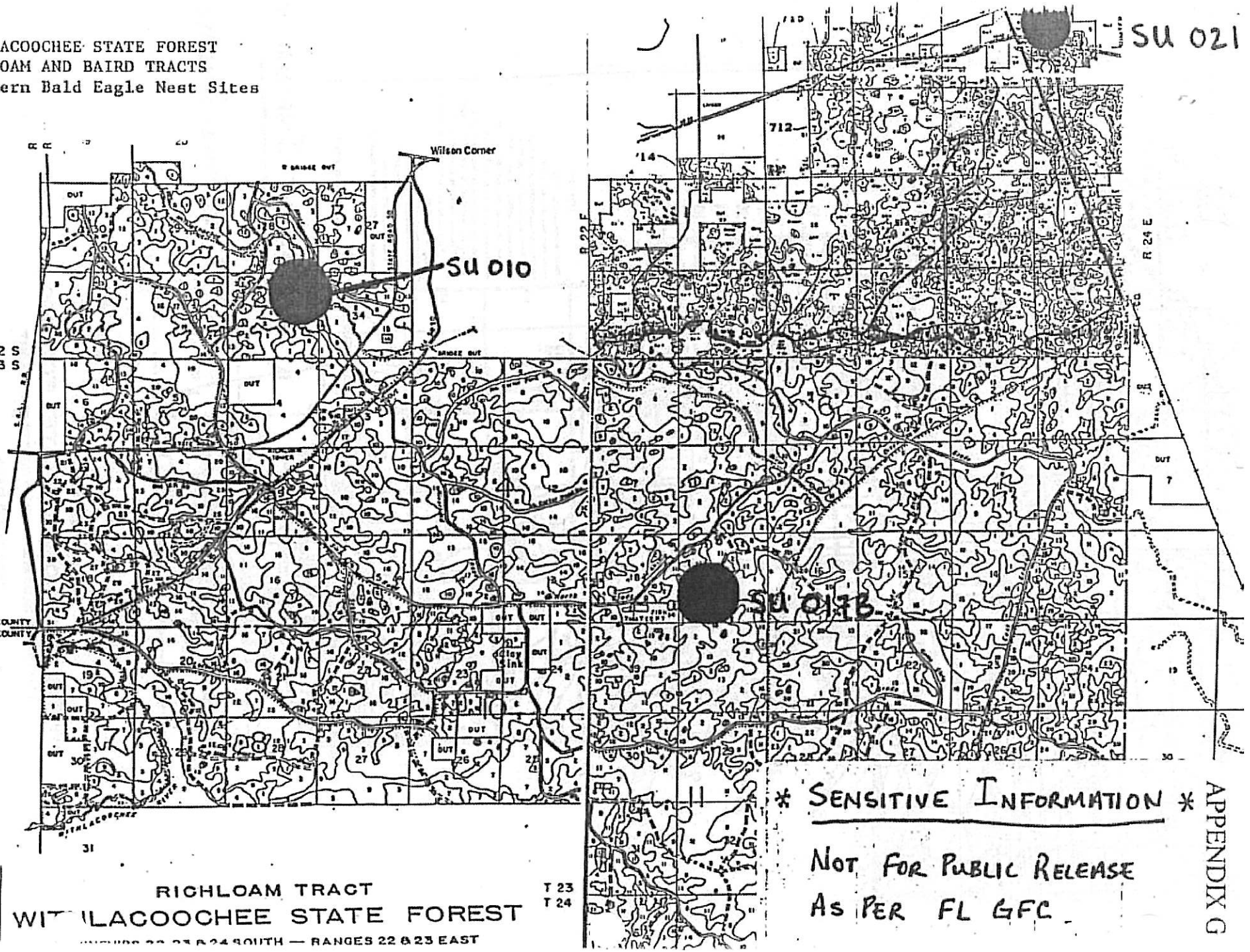
TOWNSHIPS 19, 20 & 21 SOUTH — RANGES 18 & 19 EAST

Revised 10-20-75 by A.P.C.

SCALE 1:31,680

Red-Cockaded Woodpecker Colony Map

ITHLACOOCHEE STATE FOREST
ICHLOAM AND BAIRD TRACTS
outhern Bald Eagle Nest Sites
999



* SENSITIVE INFORMATION *

NOT FOR PUBLIC RELEASE
AS PER FL GFC

APPENDIX G

GUIDELINES FOR CONDUCTING PRESCRIBED BURNS IN THE IMMEDIATE VICINITY OF SOUTHERN BALD EAGLE NESTS.

The southern bald eagle is a federally protected bird of prey known to occur in several locations of the Withlacoochee State Forest. The two main management activities completed by the Division of Forestry which may affect this species are timber harvest, and prescribed burning.

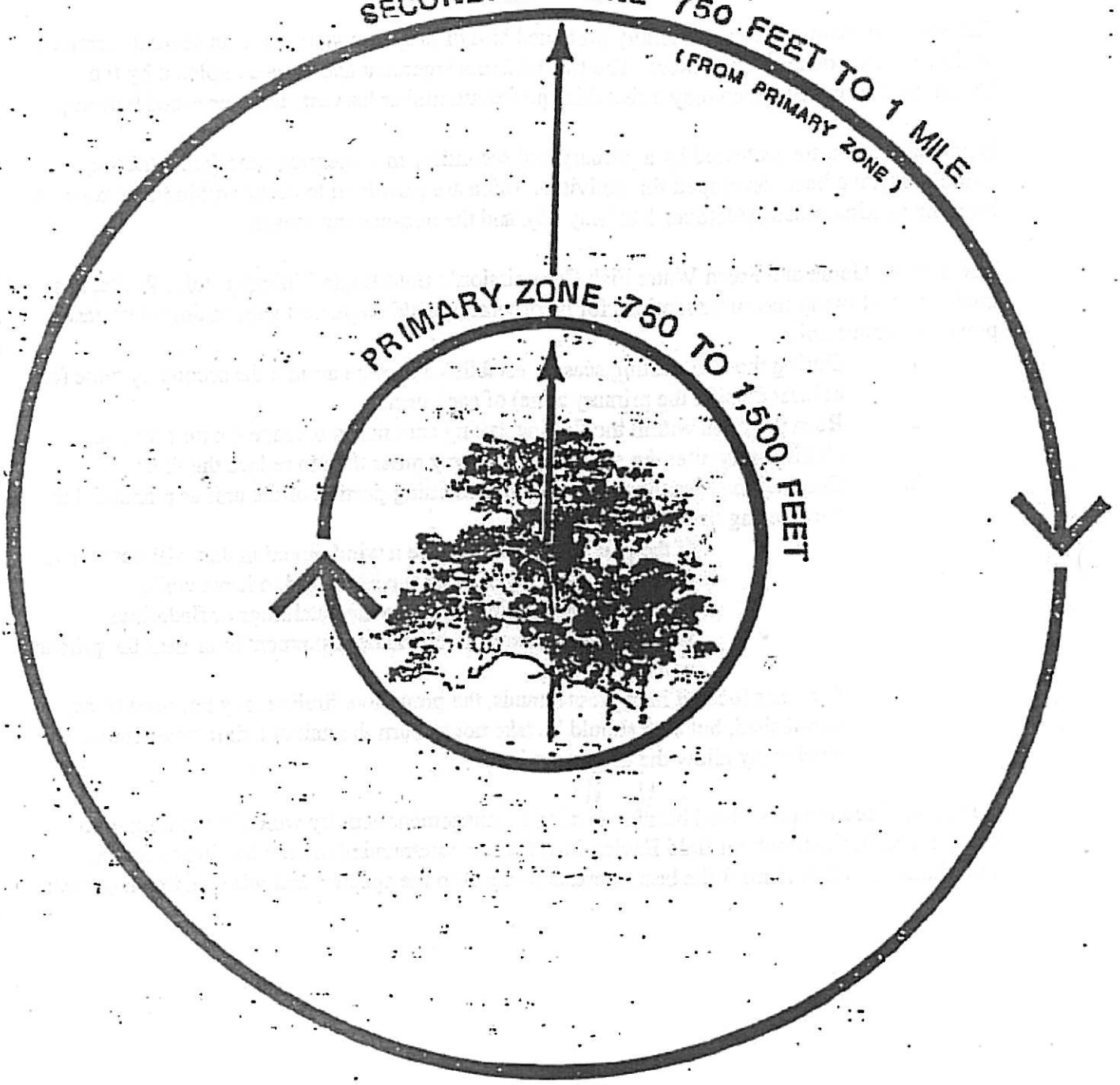
Bald eagle nests are protected by a primary and secondary management zone (see attached) guidelines have been developed for activities which are permitted to occur within these zones in both the nesting season (October 1 to May 15), and the non-nesting season.

The Florida Game and Fresh Water Fish Commission's Bald Eagle Biologist, John White, has made the following recommendations for incorporating bald eagle nest sites in dormant season prescribed burn units:

1. During the non-nesting season, establish a fireline around the secondary zone (or at least outside the primary zone) of each nest.
2. Burn the fuels within the fireline, taking care not to damage the nest tree, or significantly alter the nest site in any way other than to reduce the fuels.
3. Conduct the prescribed burn in the remaining portion of the unit as planned, but considering the following factors
    - If the pair has nested, choose a wind direction that will not smoke in the nest, thereby causing the adult bird to leave while incubating, or causing injury to the hatchlings or fledglings.
    - Do not operate heavy mechanized equipment in or near the primary zone.
4. For nests located in cypress strands, the protective fireline may not need to be established, but care should be take not to burn the unit at a time when moisture levels may allow the cypress to burn.

It is recognized the prescribed burning is a land management activity which in the long term should benefit the Southern Bald Eagle; thus, these recommendations can be altered for each individual situation to meet the best interests of the both the species, and wise land management.

BALD EAGLE MANAGEMENT ZONES



RCW Tree Preparation Prior to Prescribed Burns

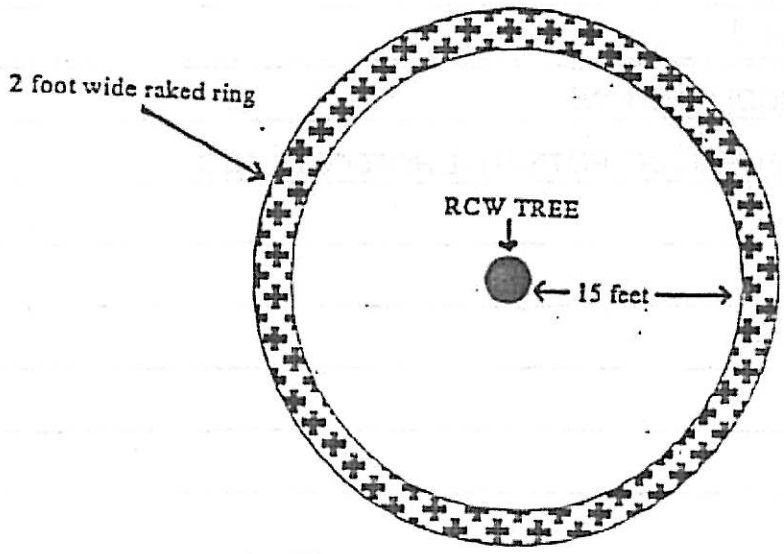
①Go 15 Feet out from the RCW Tree being prepared.

②Rake a 2 foot-wide ring around the tree, staying at least 15 feet away from the tree at all times.

③Rake down to bare soil.

④If small oaks or pines fall on path of your ring, extend the ring out around the oaks.

⑤Do not rake or disturb the fuels inside the ring (these will be burned off later to complete tree preparation).



BURN EVALUATION FORM

TIME	TEMP	RH%	WIND DIR	WIND SPD	RATE OF SPREAD CH/HR	FLAME HT. (FT.)

WIND STEADY AS PREDICTED _____ % OF TIME

WIND SHIFT DESCRIPTION _____

PRE-BURN DUFF THICKNESS: ___0"-1" ___1"-3" ___MORE THAN 3"

UNDURNED DUFF: ___BURNED TO MIN SOIL ___0"-1" ___1"-3" ___MORE THAN 3"

AM SMOKE DISPERSION:			CREWS AND EQUIPMENT :
GOOD	FAIR	POOR	
PM SMOKE DISPERSION			
GOOD	FAIR	POOR	

PERCENT CROWN DISCOLORATION:

COMMENTS: (BURN TECHNIQUE, POTENTIAL HOTSPOTS, ETC.)

EVALUATOR: DATE:

POST PRESCRIBED BURN EVALUATION

APPENDIX K

TRACT_____ DATE_____

BURN #_____ BURN DATE_____ ACRES BURNED_____

PERCENT PINE CROWN SCORCH 0-25 25-50 50-75 75-100

PERCENT PINE STEM CHAR 0-25 25-50 50-75 75-100

PERCENT HARDWOOD TOP-KILL 0-25 25-50 50-75 75-100

REMAINING DUFF LAYER THICKNESS IN INCHES_____

PERCENT RECOVERY OF PINE REGENERATION_____

RESIN EXUDED FROM PINES? YES NO

INSECT INFESTATION? YES NO

ESTIMATED NUMBER OF SNAGS LOST_____

OBJECTIVES MET? YES NO WHY?_____

_____

_____

_____

COMMENTS_____

_____

_____

_____

_____

_____

EVALUATION BY_____ TITLE_____

SANDHILL MONITORING PROTOCOL FOR ARBUCKLE TRACT OF RIDGE STATE FOREST (REVISED)

APPENDIX L

The purpose of this protocol is to provide a method for monitoring the effects of various management practices (most importantly, prescribed burns) on sandhill-type vegetative communities, with the long term goal of the restoration of sandhill communities to areas where fire has been excluded for several decades. This protocol is adapted from The Nature Conservancy's "Method for Evaluation of Management Efforts on Sandhill Communities" (Gordon, December 1991). B. Pace-Aldana (TNC) and Anne Malatesta (DOF) collaborated in the establishment and implementation of this protocol.

The ecosystems for which the protocol was primarily designed are areas on the Arbuckle tract of Ridge State Forest which are interpreted as having been sandhill communities historically, based on aerial photographs from the 1941, 1952, 1971 and 1984 (TNC). Most of these areas were leased by cattlemen from the mid-1930s through the mid-1980s; cattle grazed in these sandhills and fire was excluded. Moreover, longleaf pines were harvested from at least some of the areas in the 1940s. As a result of these practices, the floristic composition of these communities has shifted towards invasion by (fire-intolerant) sandpines and higher densities of scrubby oaks.

Typically, these areas now have four strata of vegetation: a pine (longleaf, sand or slash pine) canopy; a subcanopy of turkey oak and sand live oak; a shrub layer of scrubby oaks, ericaceous shrubs and palmettos; and, an herb layer with seedlings and forbs, occasional clumps of wiregrass, other grasses and lichens. Generally, these habitats are relatively open woodlands, often with extensive patches of bare sand; but some areas have impenetrable thickets of scrubby oaks or palmettos. In some places, the pine overstory is absent; in others it forms an almost continuous canopy.

MONITORING PROTOCOL

I. Establishement of Sampling Units

A. Divide the area to be sampled into several 10-15ha blocks. In appropriate habitat within each block, subjectively locate a point. This point will be the first corner (#1) of a 50x25 m (1/8ha) plot within which sampling will take place; it will also serve a a permanent photo point for photo-

monitoring of the plot. Corner #2 will be to the left of #1 facing into the plot; thus the corners are numbered in a clockwise direction: 1 2

4 3

Baselines 1-2 and 3-4 will be 25 m long and baselines 1-4 and 2-3 will be 50 m long. Plots should not be within 10m of roads or overlapping other vegetation types.

Along the 1-4 (50 m) baseline of the plot, randomly locate a starting point within each 12.5 m section and run a transect across the plot to the opposite baseline. This will stratify the placement of the transects and result in 4 parallel 25x1 m belt transects.

The four corners of the 1/8 ha plot will be permanently marked with 1/4" rebar; the location of the 4 transects will be permanently marked with 1/8" rebar. Corner 1 and the starting points for the transects will be labelled with aluminum tags. The location of the plots will be mapped using the GPS. A plot with this design is shown in Appendix A.

II. Photo-monitoring

A. Pre-burn and at regular intervals post-burn, take 2 photographs along baselines 1-2 and 1-4. Photo #1 with a portrait orientation will best show tree heights; #2 with a landscape orientation will show a broader spectrum of the vegetation.

III. Data Collection

A. Within each 50x25 m plot:

1) compile a species list of all vascular plants and lichen species present;

2) for pines over 1.5 m, count by species and measure dbh (or assign to dbh class) ; count pine seedlings by species; [permanently tag all longleaf pines];

3) mark and measure all individuals of listed species;

[4) collect pre-burn soil samples]

B. Along each 25x1m belt transect, sample subcanopy, shrub and herb layers:

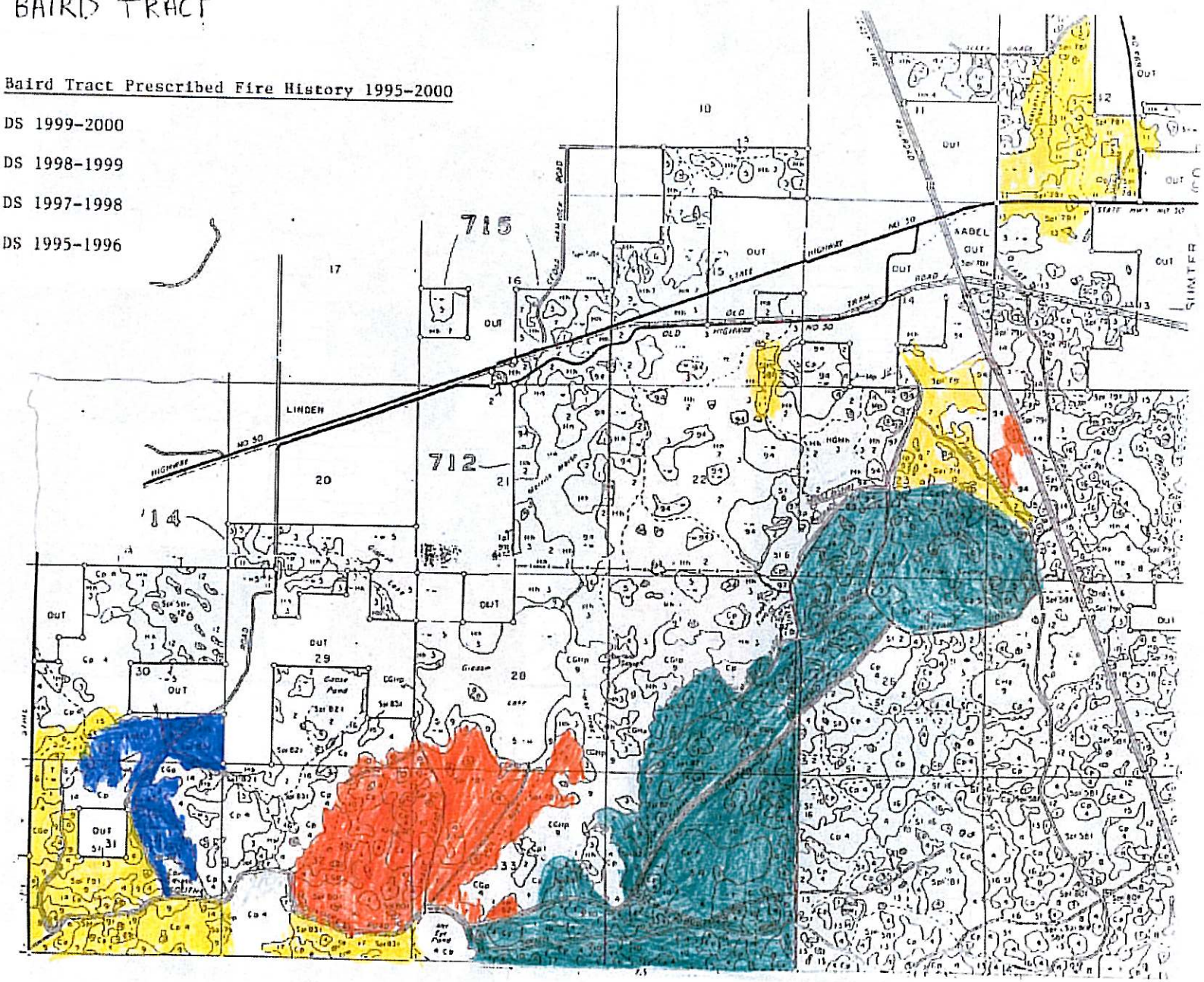
1) Subcanopy (angiosperms >2m height)--for each of the following categories, record the basal diameter of each tree within 0.5m of the transect line: TO (=turkey oak); SO (=scrubby oaks: Q. geminata, Q.

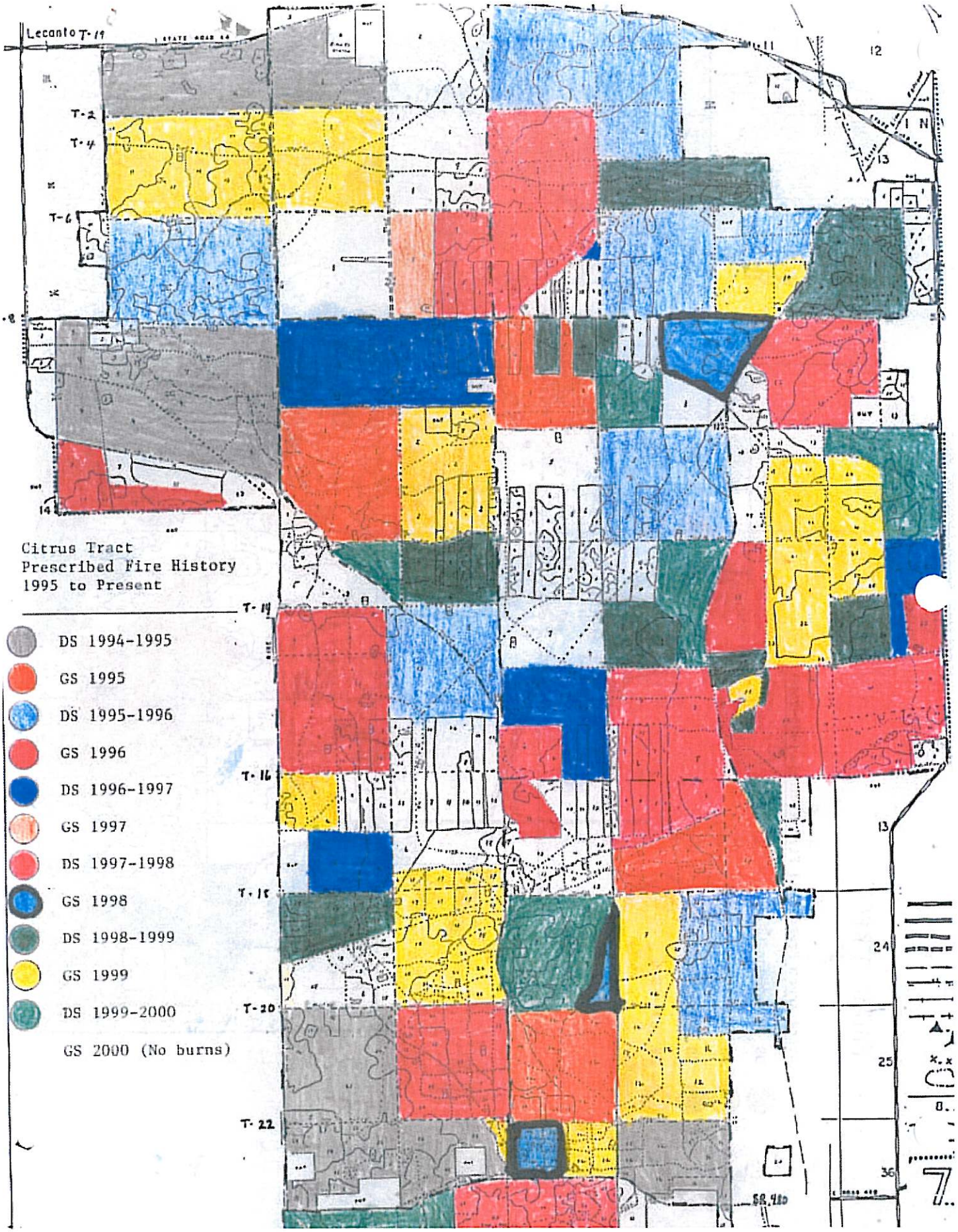
Exhibit L

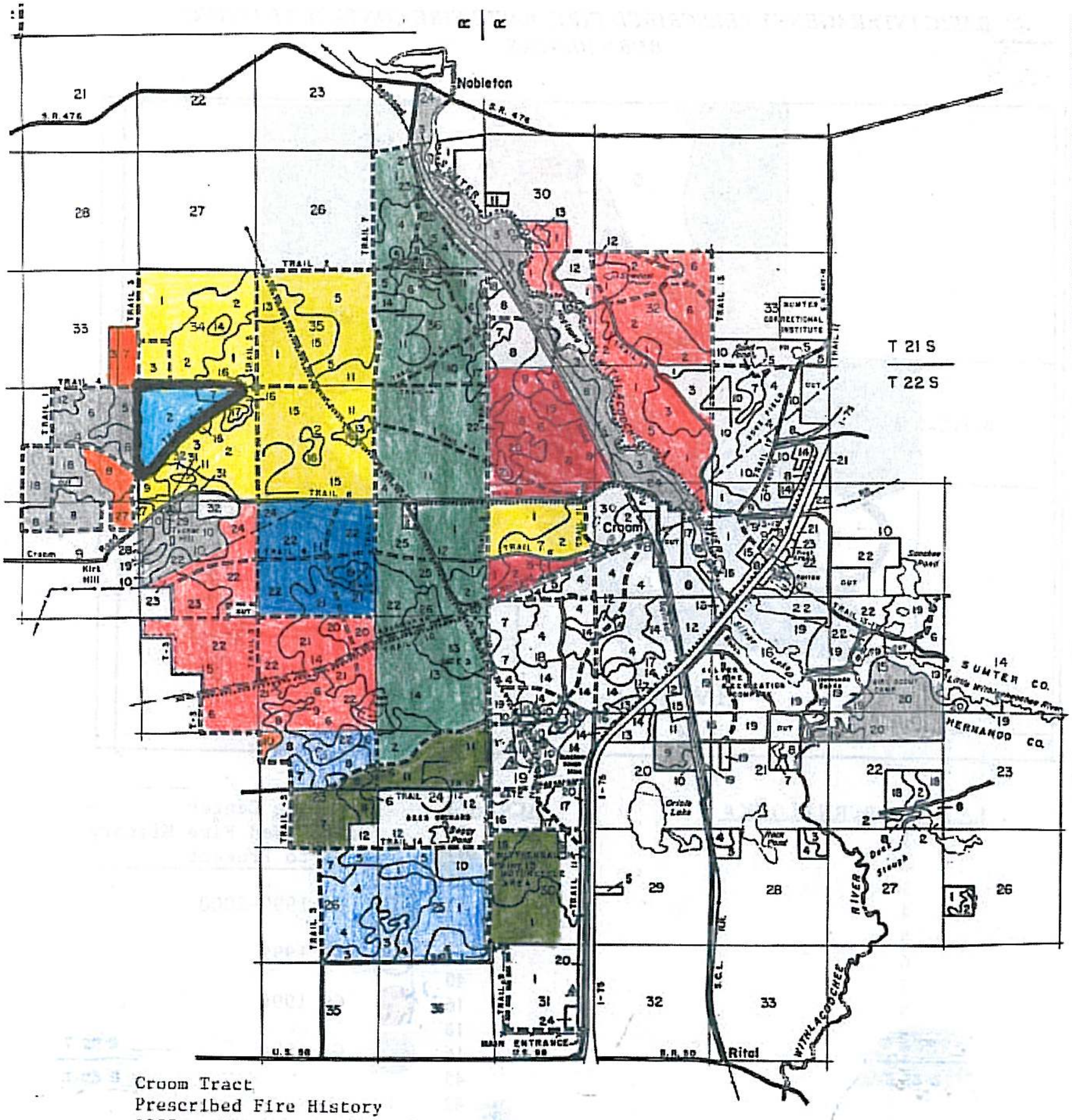
BAIRD TRACT

Baird Tract Prescribed Fire History 1995-2000

- DS 1999-2000
- DS 1998-1999
- DS 1997-1998
- DS 1995-1996



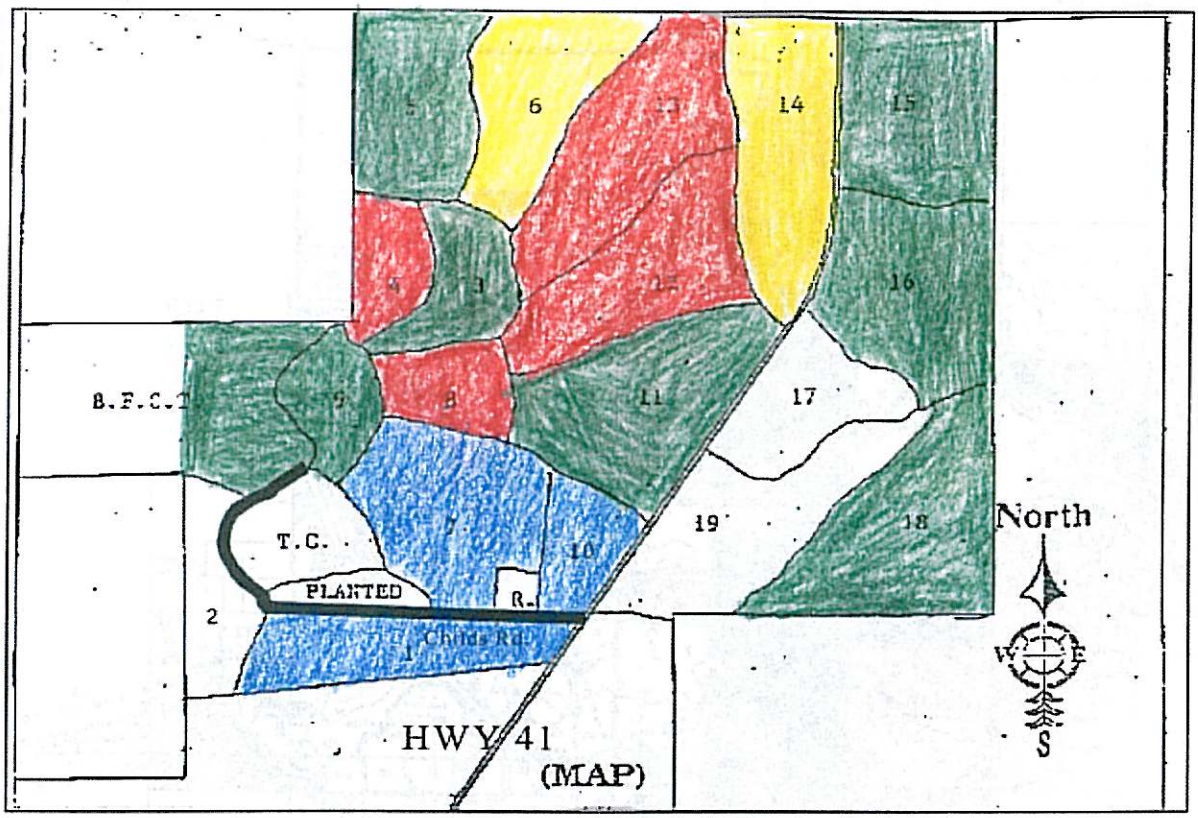

Lecanto T-19
STATE ROAD 44
T-2
T-4
T-6
T-14
T-16
T-18
T-20
T-22
11
12
13
14
13
24
25
36
Citrus Tract
Prescribed Fire History
1995 to Present
DS 1994-1995
GS 1995
DS 1995-1996
GS 1996
DS 1996-1997
GS 1997
DS 1997-1998
GS 1998
DS 1998-1999
GS 1999
DS 1999-2000
GS 2000 (No burns)



Croom Tract
Prescribed Fire History
1995 to Present

- DS 1994-1995
- GS 1995
- DS 1995-1996
- GS 1996
- DS 1996-1997
- GS 1997
- DS 1997-1998
- GS 1998
- DS 1998-1999
- GS 1999
- DS 1999-2000
- GS 2000 (No Burns

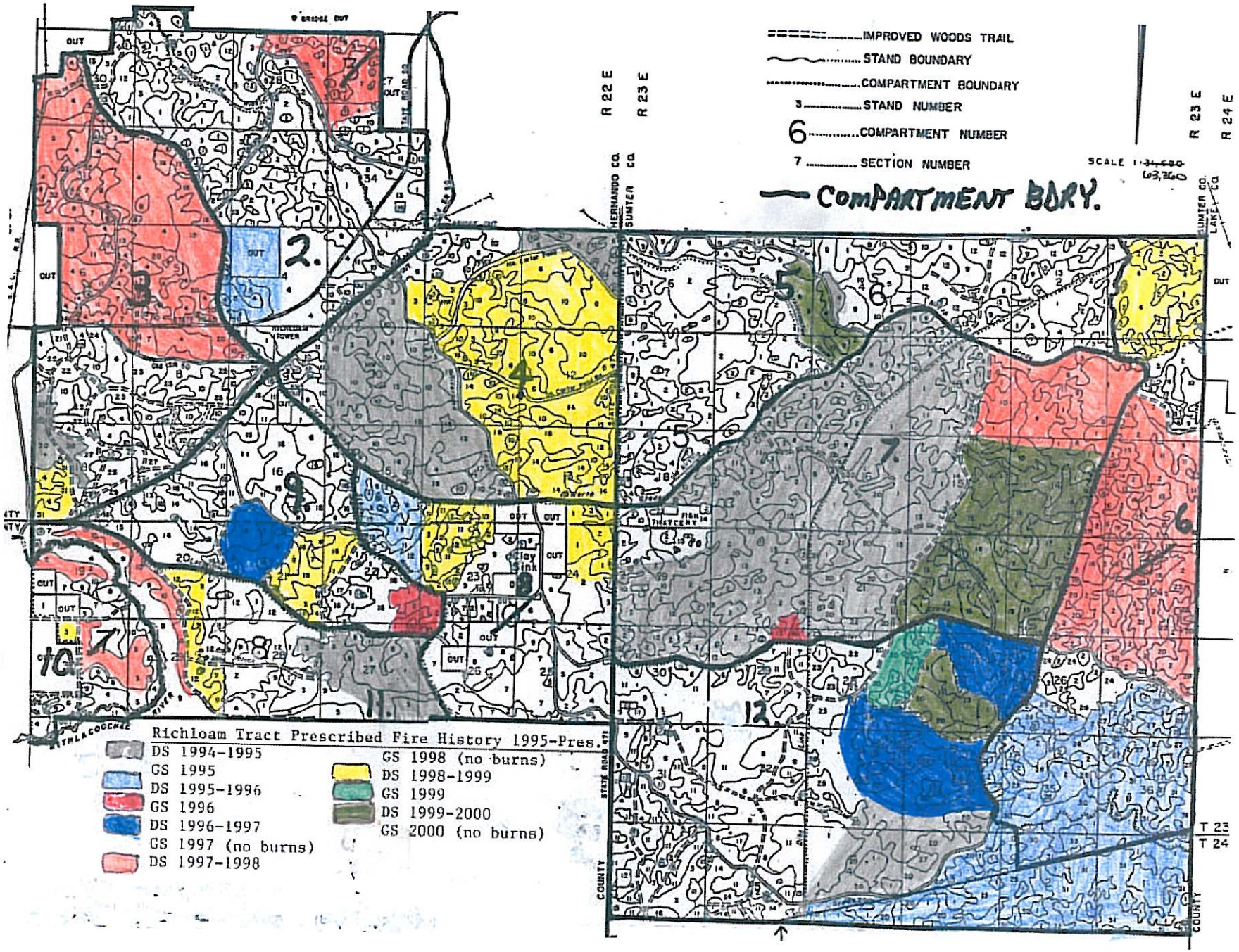
BASIC INTERAGENCY PRESCRIBED FIRE/ BASIC FIRE CONTROL TRAINING
BURN BLOCKS



I.A.B.P.F.S. BURN BLOCK #	ACREAGE
1	25
2	22
3	20
4	19
5	33
6	32
7	40
8	16
9	18
10	16
11	45
12	42
13	36
14	35
15	44
16	47
17	22
18	54
19	51

Training Center
Prescribed Fire History
1995 to Present

- DS 1999-2000
- GS 1999
- GS 1998
- GS 1996


IMPROVED WOODS TRAIL
STAND BOUNDARY
COMPARTMENT BOUNDARY
3 STAND NUMBER
6 COMPARTMENT NUMBER
7 SECTION NUMBER
SCALE 1:63,360
COMPARTMENT BDRY.
R 22 E
R 23 E
R 23 E
R 24 E
HERNANDO CO
SUMTER CO
SUMTER CO
LAKE CO
Richloam Tract Prescribed Fire History 1995-Pres.
DS 1994-1995
GS 1995
DS 1995-1996
GS 1996
DS 1996-1997
GS 1997 (no burns)
DS 1997-1998
GS 1998 (no burns)
DS 1998-1999
GS 1999
DS 1999-2000
GS 2000 (no burns)
T 23
T 24