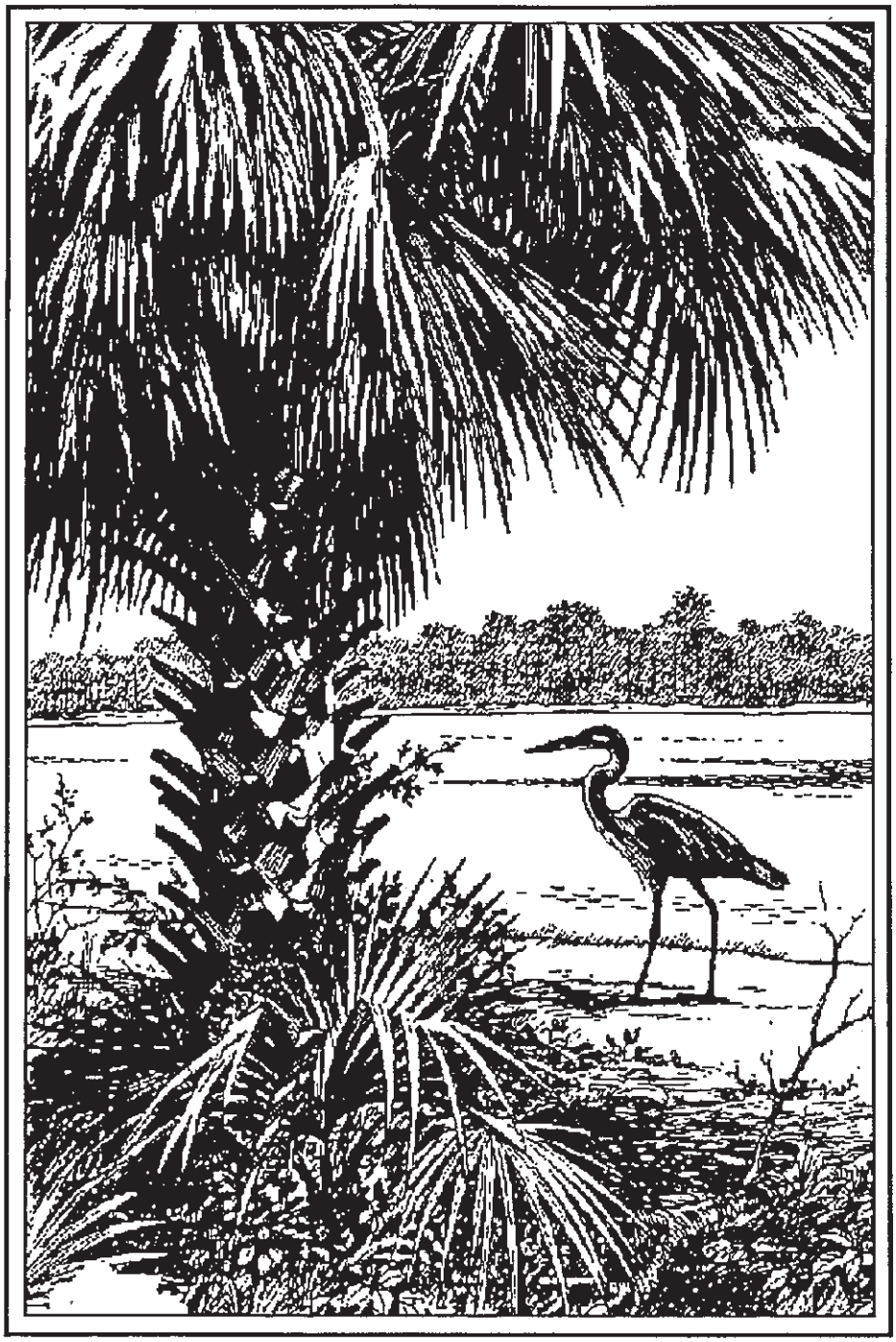
United States
Department of
Agriculture

Forest Service
Southern
Region

Revised Land and Resource Management Plan for

National Forests in Florida



Management Bulletin R8-MB-83A

February 1999

Revised Land and Resource Management Plan for

National Forests in Florida

Apalachicola National Forest (Franklin, Leon, Liberty, and Wakulla Counties)
Choctawhatchee National Forest (Okaloosa, Santa Rosa, and Walton Counties)
Ocala National Forest (Lake, Marion, and Putnam Counties)
Osceola National Forest (Baker and Columbia Counties)

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February 1999

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PREFACE

This Forest Plan is a guide for the overall management of *National Forests in Florida* for the next decade. This Forest Plan is not a list of projects; it is a framework for future decision making. You are invited to participate in planning, implementing, and monitoring projects that bring the Forest Plan to life.

The Forest Service Mission forms the basis by which all desired conditions can be met and program priorities maintained. Grounded in law and the principals of stewardship, the Forest Service Mission remains simple and succinct—``Caring for the Land and Serving People." In an expanded narrative, the Forest Service has identified nine aspects of its mission. Those aspects are summarized as:

1. Advocating a conservation ethic in promoting the health, productivity, diversity, and beauty of forests and associated lands.

2. Listening to people and responding to their diverse needs in making decisions.

3. Protecting and managing the national forests and grasslands so they best demonstrate the sustainable multiple-use management concept.

4. Providing technical and financial assistance to State and private forest landowners, encouraging them to practice good stewardship and quality land management in meeting their specific objectives.

5. Providing technical and financial assistance to cities and communities to improve their natural environment by planting trees and caring for their forests.

6. Providing international technical assistance and scientific exchanges to sustain and enhance global resources and to encourage quality land management.

7. Helping states and communities to wisely use the forests to promote rural economic development and a quality rural environment.

8. Developing and providing scientific and technical knowledge aimed at improving our capability to protect, manage, and use forests and rangelands.

9. Providing work, training, and education to the unemployed, underemployed, elderly, youth, and disadvantaged in pursuit of our mission.

This Forest Plan represents an adaptive approach to national forest management. By this we mean that we do not know it all. We must make assumptions based on the latest scientific research, what people are telling us is possible, and what people value. We must be flexible, capable of adapting new methods and processes where they are needed. As we implement this Forest Plan, we will monitor results, compare them with our assumptions, and make adaptations where necessary.

The 1990s is a profound period of change for the Forest Service. In addition to dealing with declining budgets and organizational reinvention, program emphasis has shifted to ecosystem health and sustainability. Human values are changing. People are more concerned about the environment and the places that are meaningful to them. Recycling has become routine. Volunteerism in conservation programs is at an all-time high. Such changes in human behavior reflect a growing interest in protecting the environment. With Florida's rapidly-growing population, our ability to sustain resources that provide for people's needs and values will continue to be a challenge.

Three of the national forests—the Apalachicola, Ocala and Osceola—contain 1.1 million acres with some of the State of Florida's largest remaining longleaf pine and sand pine/ scrub ecosystems. On these national forests, an ecological approach is used to achieve multiple-use management by blending the needs of people and environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Containing a magnificent variety of complex and beautiful ecosystems, the national forests in Florida stand as islands surrounded by an ocean of development. National forests and other key public lands and greenways in Florida represent a balance between natural processes and human influence where the diversity of species creates an environment that is constantly changing and renewing itself. Although interwoven with the broader environment, these *islands* also function as intact, unique ecosystems and biological refuges in a state that is experiencing rapid population growth and increased demands on remaining open space and natural areas. The Forest Service works in partnership with the other public agencies to provide good stewardship for these important land and natural resource values.

In 1994, the *Florida Greenways Commission - Report to the Governor* identified six ecological hubs in the state, three of which involve national forests. The desire is to use these hubs, through public/private sector partnerships, to create a statewide system of greenways. The Forest Service also is committed to work in partnership with the State of Florida in the Ocklawaha River Restoration Project. Additionally, the Forest Service has the management responsibility for the proposed 1,300-mile Florida National Scenic Trail, which connects all six hubs and many other greenways.

In 1995, the State legislature created a 26-member Florida Greenways Coordinating Council to develop a report by 1999 for managing the Florida greenways system. Of the 26 members, the Forest Service was selected by the Governor to represent the Federal entities in Florida. Federal ownership comprises more than half of the public land in Florida and 16 percent of the total land base in Florida.

Profile of National Forests in Florida

Apalachicola National Forest (NF) is a large area of public forestland in Florida's ``panhandle.'' It is adjacent to the city of Tallahassee. This forest is characterized by vast flatwoods and sandhills of longleaf, slash, and loblolly pine forests; and it is home to the largest known population of the endangered red-cockaded woodpecker. These fire-dependent ecosystems are maintained by the largest prescribed burning program on national forests in the nation. The landscape is threaded by bay, cypress, and titi swamps, seepage bogs, and open savannahs rich with endemic plant species. The Apalachicola River borders the forest to the west; and the scenic Ochlockonee, Sopchoppy, and New Rivers meander through the forest on their journey to the Gulf of Mexico. The underlying geology provides numerous sinkholes and one of the longest known underground water cavern systems in the world.

Special attributes found on the forest are the Apalachee Savannahs Scenic Byway, Trout Pond Recreation Area (specifically designed to accommodate persons with disabilities), Munson Hills Off-Road Bicycle Trail (the first trail in the Southern Region designed specifically for mountain bikes), Florida National Scenic Trail (its longest stretch extends through wilderness on this forest), and a municipal airport within the forest boundary. Uses of the forest range from timber harvesting to worm ``grunting'' to tupelo honey production.

Choctawhatchee National Forest was established in 1908 and managed by the Forest Service until 1940, when all lands were transferred to the War Department. Most of this land is now Eglin Air Force Base. Land may be restored to national forest status when it is no longer needed for military purposes. About 1,100 acres have been transferred to the Forest Service. Most of this land is under special-use permit to State and county governments. This forest is administered by the Apalachicola Ranger District.

Ocala National Forest, the oldest national forest east of the Mississippi River within the continental United States, is noted for its sand pine scrub ecosystem. The rolling hills contain the largest concentration of sand pine in the world. Growing on deep, prehistoric sand dunes, the sand pine scrub is home to the threatened Florida scrub-jay, sand skink, and Florida bonamia plant. Within this sea of sand pine, longleaf pine islands provide a different view with open, parklike stands of trees over grassy plains. Wildlife species of interest include the bald eagle, Florida black bear, Florida manatee, gopher tortoise, indigo snake, and red-cockaded woodpecker.

The forest's porous sands and largely undeveloped character provide an important recharge for the Floridan aquifer. Freshwater springs produce several hundred million gallons of water each day. Crystal clear springs, pothole marshes, and sinkhole lakes provide year-round recreational opportunities and unique aquatic habitats. A subtropical environment and a location near Disney World make the Ocala NF a popular destination for thousands of visitors from the United States and abroad.

Osceola National Forest is a mosaic of low pine ridges separated by cypress and bay swamps. Located near the crossroads of I-10 and I-75, this forest is within an hour's drive of more than one million people. The local population, as well as the residents of Jacksonville and Gainesville, enjoys the recreation that centers around Ocean Pond, a shallow, natural lake. Facilities are available for boating, camping, picnicking, and swimming. A 22-mile segment of the Florida National Scenic Trail passes through the Osceola NF, with many boardwalk sections traversing gum swamps and cypress ponds. The Big Gum Swamp Wilderness provides 13,500 acres in which visitors can enjoy a challenging, natural setting.

History plays an important role on the Osceola NF. The historic Olustee Depot and the Trampled Track interpretive trail give a glimpse at the rich history of the forest. Remnants of old railroad grades, used to move logs to sawmills, crisscross the forest. Osceola NF has been known for its ability to produce high-quality timber. Olustee Experimental Forest was established in the 1930s to provide research for the naval stores industry. Trees across the forest were tapped for resin, and remnants of old turpentine camps can be found in the forest. The annual reenactment of the Battle of Olustee, the largest Civil War battle fought in Florida, attracts thousands of visitors each February to the Olustee Battlefield.

The northern portion of the forest is characterized by Pinhook Swamp and Impassable Bay. These wetland ecosystems link the forest to Okefenokee Swamp and form the headwaters of the Suwannee River and St. Mary's River. The area provides important habitat for many plants and animals and is a potential reintroduction site for Florida panthers.


National Forests and Other Public Lands in Florida
Apalachicola
National Forest
Choctawhatchee
National Forest
Osceola National Forest
Ocala National Forest
N
Legend
National Forests
Other Public Lands

CHAPTER 1

INTRODUCTION

This Forest Plan represents an adaptive management approach for *National Forests in Florida*. Adaptive management is a concept that can mean different things to different people. To Forest Service employees, numerous partnerships in Federal, State, and local governments, academic institutions, conservation organizations, and Florida citizenry, it means practicing ecosystem management with the intuitive understanding that we are students of nature, not masters of it.

Adaptive management is using our scientific knowledge and experience to design management strategies that allow us to progress toward our ecological and socioeconomic objectives as we learn. The adaptive aspect of these strategies is the ability to test our assumptions and make adjustments as we learn from our work and the work of others in the field.

As a holistic model, adaptive management covers a broad spectrum of activities and practices. With sustainable forests and healthy ecosystems as primary goals, a great deal of knowledge is being tested; and there are many factors to monitor over time. This is why adapting or adjusting management practices cannot be done in isolation of the bigger picture. Socioeconomic and aesthetic values are tied to recreation, timber, wildlife, and ecosystem restoration objectives.

Monitoring is the heart of adaptive management. To ensure that all factors are considered before initiating change, an Interdisciplinary (ID) Team—very much expanded from the team that developed the Forest Plan—will review the situation. This expanded team includes professionals from all levels of the Forest Service, scientists from research units in the South, and colleagues from local academic institutions.

The Forest Service, with its research capability and practical experience, is positioned to advance both forestry and ecosystem management into the twenty-first century. *National Forests in Florida* believes an adaptive management concept will make a major contribution toward this advancement. In any event, Forest Service employees and national forest (NF) partners are encouraged by these words of René Dubos:

> . . . by using scientific knowledge and ecological wisdom we can manage the earth so as to create environments which are ecologically stable, economically profitable, esthetically rewarding and favorable to the continued growth of civilization.[1]

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[1] René Dubos, B. Y. Morrison Memorial Lecture, Annual Meeting, American Assn. for Advancement of Science, Washington, D.C., 1972, quoted by John O. Simonds, *Earthscape: A Manual of Environmental Planning* (New York: McGraw-Hill Book Co., 1978).

This Forest Plan guides all natural resource management activities and sets management standards for *National Forests in Florida*. It describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management.

The National Forest Management Act (NFMA), implementing regulations, and other documents guided the preparation of this Forest Plan. Land-use determinations, management practices, goals, objectives, standards, and guidelines are statements of the Forest Plan's management direction. Projected yields, services, and rate of implementation are dependent on the annual budgeting process.

This Forest Plan provides broad program-level direction for management of the land and its resources. Future projects carry out the direction in this Forest Plan. This Forest Plan does not contain a commitment to select any specific project. An environmental analysis is conducted, when required, on these projects as they are proposed. This analysis may tier to the data and evaluations in other environmental impact statements.

In addition to direction found in this Forest Plan, projects also are implemented through direction found in the Forest Service directive system (manuals and handbooks) and other guides (*see* Chapter 5, "Monitoring, Evaluation, Research, and Implementation").

Relationship of the Forest Plan to Environmental Impact Statements

This Forest Plan is the preferred alternative for managing the land and resources that are analyzed and described in the Final Environmental Impact Statement.

Other decisions providing management direction are:

- *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region* (USDA Forest Service, Southern Region, June 1995)
- *Record of Decision, Final Environmental Impact Statement Standards and Guidelines for the Southern Regional Guide* (USDA Forest Service, Southern Region, June 1984)
- *Record of Decision, Final Environmental Impact Statement for the Suppression of the Southern Pine Beetle, Southern Region* (USDA Forest Service, Southern Region, April 1987)
- *Record of Decision, Final Environmental Impact Statement for Vegetation Management in the Coastal Plain/Piedmont* (USDA Forest Service, Southern Region, February 1989) as supplemented (September, 2002.) Amendment #1

There are several exceptions to these Regional directions.

Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region:

Standards and Guidelines - WL-1 deviates from the Record of Decision by reducing foraging requirements on the Apalachicola Ranger District (RD).

Standards and Guidelines - WL-2 permits thinning below minimal levels established in the Record of Decision.

Standards and Guidelines - WL-3 permits exceeding even-aged harvesting restrictions in the next 10 years by allowing irregular shelterwood harvest in slash pine of up to 1,000 acres on the Apalachicola RD, 500 acres on the Wakulla RD, and 300 acres on the Osceola NF.

Record of Decision, Final Environmental Impact Statement Standards and Guidelines for the Southern Regional Guide:

Standards and Guidelines - VG-18 deviates from Regional Stocking Guides to include a wider range of stocking levels for longleaf, slash, and sand pine.

Standards and Guidelines - 8.1-3 and 8.2-3 deviate from the Regional guide for regeneration harvest size for sand pine.

Record of Decision, Final Environmental Impact Statement for Vegetation Management in the Coastal Plain/Piedmont:

Standards and Guidelines - FI-6 deviates from the Record of Decision by allowing growing-season burns on the same site without timing restrictions.

~~Direction is included in the Forestwide Standards and Guidelines (3-26) which clarifies the appropriate methods of project level inventory/surveys for TES species when conducting biological evaluations. This is a change in language found on page A-1, Section I. A. (2) of the Vegetation Management Record of Decision.~~
Amendment #1

Plan Structure

The Forest Plan consists of five chapters, a glossary, and several appendixes.

Chapter 1 introduces the Forest Plan; explains its purpose, structure, and relationship to other documents; includes a brief description of the forest; and summarizes the issues and analysis of the management situation for the revision.
Chapter 2 shows the forestwide desired future conditions, goals, and objectives.
Chapter 3 shows the forestwide standards and guidelines.
Chapter 4 shows the management area goals, desired future conditions, standards, and guidelines.
Chapter 5 gives direction on Forest Plan implementation, monitoring, and evaluation.
Appendixes provide supplemental information about the Forest Plan.

The Draft Environmental Impact Statement (DEIS) and Proposed Revised Land and Resource Management Plan (Forest Plan) were published in January 1997 with a 120-day public comment period. More than 800 copies of these documents were distributed to the public via mail and during public meetings. From February through April 1997, a series of 17 public workshops were held throughout the state.

By the end of the comment period, more than 400 letters had been received. These letters contained more than 4,000 individual comments. The comments were reviewed by the ID Team and the forest Leadership Team and changes were agreed on in the Final Environmental Impact Statement (FEIS) and Final Forest Plan based on these comments. The comments and responses are found in Appendix G of the FEIS.

Summary of Issues

Public involvement is a key part of the planning process. Public comments were used to identify what the forest should be in the future—including goods, services, and environmental conditions. Opportunities were offered for people to get involved in the planning process and to provide comments. Issues submitted by the public, as well as from within the Forest Service, guided the need to change current management strategies. Many of the issues listed below were obtained from two appeals of the Forest Plan (1986). Other issues were submitted by the public during efforts conducted by Forest Service personnel from 1990 to 1995.

On March 27, 1990, a scoping letter was sent to interested and affected publics, asking for comments on 10 preliminary issues to be addressed in the significant amendment of the Forest Plan.

On January 2, 1991, another letter was sent to the public listing the desired future conditions that were proposed for the significant amendment. When the decision was made to revise the Forest Plan, an additional letter was sent on July 14, 1992, asking for comments on issues for the revision.

Based on previous public comments, four preliminary alternatives were developed and descriptions were mailed to the public in January 1995. Public meetings were held throughout the state, and comments were solicited on the preliminary alternatives.

Preliminary issues and the additional issues identified through public involvement were stated in the form of planning questions to be addressed in the planning process. The issues and planning questions are summarized into the following questions, used to develop alternatives for the Forest Plan revision.

- How much and by what methods should the longleaf pine-wiregrass community be restored and maintained?
- How should we maintain the sand pine-scrub oak community?
- How should we manage and protect riparian and wetland areas?

- How should special aquatic, botanic, geologic, historic, paleontologic, and scenic areas be protected and managed?

- What lands should be designated as wilderness, and what practices should be permitted in these areas?

- What types, amounts, and mix of recreational opportunities should be provided, and what consideration should be given to compatibility of users?

- What should be the access policy for motorized vehicles?

- What is the proper combination of open and closed roads to meet public needs?

- How should we manage habitat to enhance certain wildlife populations—such as game and proposed, endangered, threatened, and sensitive species?

- What will be the level of timber harvest, and what silvicultural systems will be used to manage the forests?

- What types of other forest products will be gathered and what uses will be permitted on the national forests?

Summary of the Analysis of the Management Situation

In addition to the emerging issues, the "Analysis of the Management Situation for National Forests in Florida" determined the need for change based on the results of monitoring, other policy and direction since 1986, 5-year review, current condition of the resources, and supply and demand factors.

This analysis also determined the ability of the planning area covered by the Forest Plan to supply goods and services in response to society's demands and to provide a basis for formulating a broad range of reasonable alternatives. A summary of the major findings of this analysis follows.

- Since 1986, several changes in policy and social trends affected management of the national forests. Increasing interest in environmental issues and public land management led to greater public involvement in decision making.

- In June 1992, the Chief issued a policy of ecosystem management of the national forests with direction for reduction in clearcutting on the national forests. The Forest Plan needed to be revised to incorporate fully these decisions and policies.

- The Forest Plan needed to incorporate the recommended 1990 Resources Planning Act Program.

- The Forest Plan needed to provide goals and objectives for ecological restoration and maintenance.

- A broader range of silvicultural systems and harvest methods needed to be evaluated and guidelines incorporated into the Forest Plan.

- Many of the management area allocations were too broad to provide meaningful direction using an ecological approach to management.

- The Forest Plan needed to include the ecological classification system being developed by the Forest Service.

- Monitoring and evaluation strategy of the Forest Plan needed to be revised to answer whether we are achieving the goals, objectives, and desired future conditions of the Forest Plan rather than emphasizing outputs and activities.

- The demand for recreation is expected to increase in the future. Activities expected to have the greatest increase in demand are fishing, visiting historical sites, and recreational vehicle camping. Demand for hunting is increasing at a slower rate than other recreational activities. The demand in terms of number of recreation visitor-days on the forests is greatest in driving for pleasure, camping, picnicking, fishing, hunting, and waterfront activities. The national forests supply large areas of semiprimitive and rural landscapes suited for dispersed recreation activities such as hiking, horseback riding, hunting, motorized use, nature study, and trail bicycle riding. More direction for the mix and types of developed recreation facilities was needed. More specific direction was needed on the proper mix, amount, and compatibility of uses of the trail system and more specifics on the off-highway vehicle policy.

- Wilderness use on the forests is low, due to the swampy terrain and summer heat. At present, the supply of designated wilderness is sufficient for the recreational demand. Recreation use is one element in the demand for wilderness. Other wilderness values include ecological, spiritual, and psychological values. Recommendations were needed for disposition of wilderness study areas.

- Recommendations were needed for candidate research natural areas.

- No rivers in the forests are included in the National Wild and Scenic Rivers System. Seven rivers on or bordering the forests are included on the National Rivers Inventory. Evaluations and recommendations were needed for these rivers.

- The Forest Plan needed to be revised to include the new Scenery Management System.

- The Forest Plan needed to be revised to give better direction on the goals and objectives of the fisheries program and standards and guidelines for fisheries management.

- The determination of habitat management areas and population objectives for red-cockaded woodpeckers (RCWs) was needed to conform to Regional direction.

- The management indicator species selected for the Forest Plan needed to be reviewed considering new information, the emphasis on an ecological approach to ecosystem management, and the concern for Neotropical migratory birds.

- Consumption of beef in the United States has decreased since 1976. Demand for forestland grazing has declined since 1986. In Florida, there are 132,228 acres suitable for grazing on the national forests, with a carrying capacity of 59,471 animal unit months. In 1996, about 336 cattle were grazing on the forests. Objectives for range use and forage improvement needed to be revised.

- Within the market area for timber on the national forests in Florida, softwood harvest is expected to increase by about 30 percent in the next 20 years. This indicates a tight supply in the area for the next 5-10 years for softwood sawtimber. Hardwood inventory is expected to remain relatively flat. In 1988, harvest from the national forests in Florida was about 3 percent of the market area. The national forests contain 8 percent of the total growing stock in the state; however, 44 percent of the growing stock more than 50 years old in Florida is on the national forests. The allowable sale quantity needed to be recalculated to account for the effects of ecosystem management and RCW guidelines.

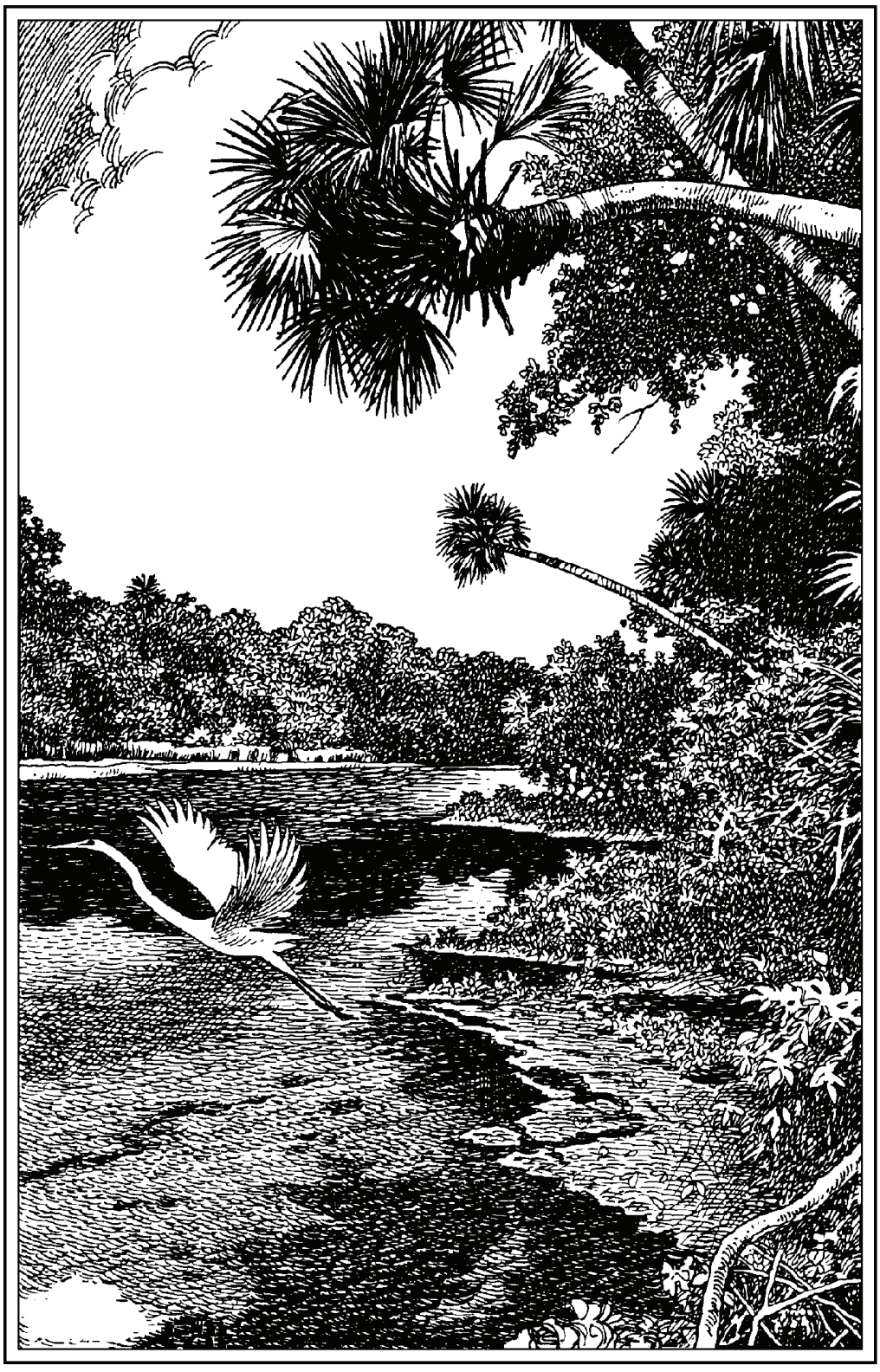
- More direction was needed for prioritizing land exchanges and acquisitions.

- The Forest Plan needed to be revised to include new levels of road construction, reconstruction, maintenance, and closure.

- Prescribed burning goals and levels needed to be revised and air quality information needed to be augmented.

- About 1,000 special-use permits affect about 8,000 acres on the national forests in Florida. The future demand for special land uses is expected to increase. The Forest Plan needed to include guidance on the appropriate uses of the national forests for permitting special uses on the forests.

- The demand for oil and gas leasing in and around national forest land is low and interest in oil and gas exploration is a remote possibility.



CHAPTER 2

FORESTWIDE DESIRED FUTURE CONDITIONS, GOALS, AND OBJECTIVES

This chapter describes forestwide desired future conditions (DFCs), goals, and objectives. Additional DFCs and goals for each management area are contained in Chapter 4, ``Management Area Goals, Desired Future Conditions, Standards, and Guidelines."

Desired future condition is a description of the conditions and changes that are expected to occur as the Forest Plan is implemented. It is also a description of resource conditions, capabilities, ecosystem functions, and human interaction.

Goals are concise statements that describe an intended result normally expressed in broad, general terms without a specific time frame for achievement. Goals are reached by attaining specific objectives or by adhering to certain standards and guidelines. Not all goals have quantifiable objectives.

Objectives are concise statements that describe a specific result or condition desired to contribute toward achieving a goal. Objectives are measurable steps taken to accomplish a goal and may be accomplished by maintaining a desired condition or by implementing a project or activity. Objectives are for the 10-year period following Forest Plan approval.

Forestwide Desired Future Conditions

The public participates in planning, managing, and monitoring of the national forests. An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

National Forests in Florida plays a major role in ecosystem protection and maintenance of biodiversity in close partnership with the State of Florida. Partnerships with other national forests, other agencies, groups, local communities, organizations, and tribal governments provide a collaborative approach to national forest management. *National Forests in Florida* recognizes and embraces the Florida greenways system and the role the forest plays as a major hub of greenspace in the statewide plan for greenways. An interconnected system of greenways will help to prevent fragmented populations and ecosystems.

A mosaic of forest stands is spread across most of the landscape. Vegetation patterns reflect natural disturbances, as well as planned harvest activities and historic landscapes which result from past human activity. Some longleaf and slash pine stands will contain a variety of ages, sizes, and densities of trees, while others will be more homogenous such that one or two ages are found. Large, old trees are common. Sand pine scrub forests are characterized by large, even-aged stands. Hardwood forests have little evidence of timber harvest except on drier, pine inclusions.

Water quality in streams, ponds, wetlands, and riparian areas reflects healthy, functioning aquatic ecosystems. Soil productivity is maintained. Nutrient levels and nutrient-cycling processes continue to function. Water quality is maintained and, in some cases, improved. Air quality is maintained, although portions of the forests may experience some temporary reduction in air quality as a result of prescribed fire.

Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer considered at risk.

Fire plays an increased role in maintaining many upland forest ecosystems. The risk of resource-damaging wildfires is reduced due to a reduction in fuels by prescribed burning. Evidence of fire is in most upland pine sites, except sand pine. Fire-dependent ecosystems are burned frequently during growing season to mimic the extent, duration, and intensity fire naturally played in this ecosystem.

There is evidence of natural disturbances from insects and diseases. Insects and diseases contribute to many ecological processes, including nutrient cycling and plant succession. A higher level of tree mortality occurs because of older aged trees. Integrated pest management continues to be used as the strategy to manage pest populations.

Forests are consolidated in ownership patterns. Key tracts containing cultural resources, geologic features, riparian areas, unique plant and animal habitats, recreational opportunities, and wetlands are acquired. All property boundaries are legally located, highly visible, and free of unauthorized encroachments.

Significant botanical, cultural/historical, geological, and scenic sites are protected, managed, and interpreted.

Forests provide a tranquil retreat from the fast pace of city life. Evidence of human activities exists in most areas of the forests, although most activities remain subordinate to the characteristic landscape. National forest landscapes show less evidence of human disturbance compared to adjacent private forestlands.

Forests are popular destinations for a wide range of recreational visitors. Many areas and a variety of trails provide semiprimitive recreational opportunities. The Florida National Scenic Trail (FNST) is dedicated to long-term public use. The FNST is also the backbone for the statewide greenways system. Additional areas are added to the wilderness system. Several rivers are added to the National Wild and Scenic Rivers System. National forests represent key areas in the Florida greenways system and coordinate recreation opportunities with other adjacent public lands.

There are opportunities to enjoy both developed and dispersed recreational activities and opportunities for consumptive, as well as nonconsumptive, use of forest resources. Opportunities exist for bird-watching, fishing, hunting, gathering forest resources, learning about past human occupation, photographing, and simply enjoying nature. Expansion and enhancement of developed recreation facilities are made possible through private/public partnership opportunities.

Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health. National forests sustain timber harvesting without impairing the health of ecosystems. Annual timber production is lower than in previous decades. The forests continue to produce large, quality pine sawtimber products. Hardwood forests are not managed for timber production. Clearcutting is a common regeneration method for sand pine forests but is used less often in other forest types. All harvest methods are available and are determined based on the management area, desired future condition, and site-specific analysis.

National forests contribute to the economic diversity of local communities. Economic benefits from wood products are maintained, while benefits from wildlife and recreation are a larger proportion of forest benefits.

New road construction is minimal. A higher proportion of roads are closed to motorized travel than in previous decades. The road system continues to provide adequate access for public and administrative use.

Forestwide Goals

1. Ensure a philosophy of service is paramount in our relationship with the public in the management of forest resources.

2. Be aggressive and innovative in providing for public participation in planning, managing, and monitoring of the national forests.

3. Strengthen partnerships and actively pursue communication, cooperation, and partnerships with other national forests, other agencies, groups, local communities, organizations, and tribal governments to serve the public interest, consistent with the Forest Service Mission.

4. Meet regularly and often with county commissioners, congressional staff, tribal governments, and State agency directors to ensure a high level of positive communication needed to maintain national forests for quality public uses and values.

5. Contribute to the social and economic well-being of local communities by promoting sustainable use of renewable natural resources and participating in efforts to devise creative solutions for economic health.

6. Maintain or, where necessary, restore ecosystem composition, structure, and function within the natural range of variability in all ecosystems, with emphasis on longleaf pine-wiregrass, sand pine-oak scrub, pine flatwoods, hardwood/cypress, oak hammock ecosystems, and other imperilled specialized communities.

7. Manage floodplains, groundwater, lakes, riparian areas, springs, streams, and wetlands to protect or enhance their individual values and ecological functions.

8. Conserve and protect important elements of diversity—such as endangered and threatened species habitat, declining natural communities, and uncommon biological, ecological, or geological sites.

9. Manage for habitat conditions to recover and sustain viable populations of all native species, with special emphasis on rare species.

10. Apply prescribed burning technology as a primary tool for restoring fire's historic role in ecosystems.

11. Interpret forest attributes such as scenic byways, cultural sites, and special areas. Interpret forest management practices, emphasizing how sand pine clearcutting and prescribed fire improve ecosystem functions.

12. Provide a wide range of accessible recreation opportunities to accommodate the varied ability levels of forest visitors.

13. Provide safe and enjoyable visitor opportunities at developed recreation areas by maintaining, retrofitting, or replacing recreation facilities or upgrading amenities.

14. Provide a system of marked recreational trails and support facilities that will promote a variety of experiences for both motorized and nonmotorized trail users.

15. Protect rivers and preserve their cultural/historical, ecological, fish and wildlife, recreational, geological, or scenic values.

16. Increase public awareness of wilderness values. Protect and enhance resources, quality, and wilderness character of designated wilderness areas.

17. Preserve significant heritage resources as remnants of our cultural heritage by locating, evaluating, and protecting heritage resource sites.

18. Obtain a national forest ownership pattern that reduces management costs and helps meet ecosystem management objectives. Acquire land to connect large tracts of public ownership to maintain biologic and hydrologic linkages in partnerships with other public agencies. Locate and maintain national forest boundaries that are visible to forest users and neighbors.

19. Protect, enhance, and, where necessary, restore the forests' scenery resource values.

Forestwide Objectives

1. Implement surveys for determining public satisfaction with *National Forests in Florida* programs.

2. Ensure innovative and aggressive public involvement in national forest management by developing partnership documents with other national forests and public groups and with local, State, and other Federal agencies, and tribal governments.

3. Restore between 10,000 and 15,000 acres of off-site slash pine to the appropriate native vegetation in the next 10 years. Remove slash pine from 8,000 acres of mixed longleaf/slash pine stands on the Osceola NF. The long-term objective is to restore all the off-site slash pine to the appropriate native vegetation.

4. Prescribe burn on average every 3 years with varied intervals on any given site to restore natural processes in all sites where the natural-fire-return interval was less than 10 years. Strive to burn 50 percent of those acres between March 15 and September 30 and 20 percent between May 1 and July 31. This includes wilderness, wilderness study areas, and the Savannah research natural area.

5. Thin 45,000 to 55,000 acres of longleaf and slash pine stands to release overcrowded live crowns, favor appropriate pine species regeneration, increase stand growth, allow more sunlight onto the forest floor, and increase suitable habitat for red-cockaded woodpeckers (RCWs).

6. Initiate uneven-aged management with group selection harvests on 30,000 to 33,000 acres principally in longleaf pine forests with some in slash pine forests.

7. Replace between 500 and 1,000 acres of the off-site sand pine to the appropriate native vegetation in the next 10 years. The long-term objective is to restore the off-site sand pine to the appropriate native vegetation.

8. Provide habitat capability to support an increasing population of RCWs. The 10-year population objectives are 500 active clusters on the Apalachicola habitat management area (HMA), 250 active clusters on the Wakulla HMA, 151 active clusters on the Osceola HMA, 32 active clusters on the Island HMA, and 12 active clusters on the Paisley HMA. The long-term objectives are 500 active clusters on the Apalachicola HMA, 506 active clusters on the Wakulla HMA, 457 active clusters on the Osceola HMA, 67 active clusters on the Island HMA, and 81 active clusters on the Paisley HMA. The objective for the designated recovery populations (Apalachicola Ranger District and Osceola NF) is to have at least 250 breeding pairs fledging young annually. In unrecovered populations, recruitment clusters should equal approximately 10 percent of active clusters, depending on population demographics.

9. Maintain a dynamic system of at least 45,000 to 55,000 acres of habitat capable of supporting scrub-jays on the Ocala NF. The 10-year population objective is 742 to 907 groups.

10. Complete the inventory of existing scenic conditions and proposed scenic classes and implement updated Scenery Management System within 3 years of the adoption of this plan.

11. Make at least 20 percent of the developed site (level 3 and above) recreation opportunities universally accessible. Provide fully accessible opportunities on at least one swimming area, one hiking trail, and one fishing pier/boating site per forest. The long-term objective is to make all developed sites universally accessible.

12. Upgrade, refurbish, or replace four recreation facilities per year.

13. Within 2 years of Forest Plan approval, develop implementation plans for a system of designated trails and marked, numbered roads in areas where motorized vehicles and bicycles are restricted (*see* Access Maps, Appendix A). This process will incorporate existing travelways as much as possible and include public participation and collaboration with local user groups.

14. Establish and certify for public use the remaining 750 miles of the Florida National Scenic Trail needed to complete a continuous trail from Big Cypress National Preserve to Gulf Islands National Seashore.

15. Evaluate for significance five archeological sites each year.

16. Evaluate Choctawhatchee lands that no longer exhibit national forest character and consider for exchange for lands adjacent to or within the Apalachicola, Ocala, and Osceola NFs. Exchange national forest land along the Ocklawaha River for State-owned land within national forest boundaries. Exchange Forest Service-owned minerals under Withlachoochee and Blackwater State Forests for land within Pinhook purchase unit.

17. Acquire land within the 170,600-acre Pinhook purchase unit. Within the Apalachicola, Ocala, and Osceola NFs, annually acquire a minimum of 200 acres of forest inholdings. Acquire 6,500 acres adjacent to the Ocala NF.

18. Initiate irregular shelterwood harvests on between 1,800 and 2,000 acres of slash pine forests.

19. Regenerate between 39,000 and 41,000 acres of sand pine on the Ocala NF.

20. Designate the following acres of future old growth by community type (Table 2.1):

Table 2.1

Old-Growth Community Objectives

Old-Growth Community	Acres
Upland Longleaf Pine Forest	10,200
Southern Wet Pine Forest, Woodland, and Savannah	11,000
Cypress/Tupelo Swamp Forest	17,700
River Floodplain Hardwood Forest	2,900
Hardwood Wetland Forest	24,200
Dry and Dry Mesic Oak/Pine Forest	2,200
Coastal Plain Upland Mesic Hardwood Forest	1,700
Dry and Xeric Oak Forest, Woodland, and Savannah	2,100

21. Provide the following habitat conditions in the next 10 years (Table 2.2):

Table 2.2

Habitat Association Objectives

Habitat Association	Apalachicola NF	Osceola NF	Ocala NF
Sandhill and Scrubby Flatwoods			
0-10 age class	8,152	0	2,947
11-30 age class	7,820	0	9,090
31-80 age class	7,034	0	8,786
81+ age class	7,059	0	25,485
Mesic Flatwoods and Wet Flatwoods			
0-10 age class	1,500	1,000	78
11-30 age class	60,413	27,598	10,537
31-80 age class	158,813	76,541	22,975
81+ age class	63,630	15,346	4,557
Xeric Hammock, Upland Hardwood Forest, and Slope Forest			
0-20 age class	400	0	834
21-60 age class	1,717	53	5,449
61-100 age class	4,231	158	4,251
101+ age class	542	0	530
Scrub			
0-10 age class	0	0	40,000
11-30 age class	0	0	91,919
31-50 age class	0	0	53,435
51+ age class	0	0	20,789
Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Basin Swamp, Strand Forest, and Dome Swamp			
0-20 age class	1,145	380	326
21-60 age class	1,995	1,280	1,642
61-100 age class	88,541	43,835	27,886
101+ age class	7,454	207	1,580
Bog, Seepage Slope, Depression Marsh, Wet Prairie/Savannahs	6,043	980	101
Titi/Brush	133,573	10,005	0
Aquatic (Lakes, Rivers, Streams, Ponds)	4,936	2,129	18,263

CHAPTER 3

FORESTWIDE STANDARDS AND GUIDELINES

This chapter describes forestwide standards and guidelines. Additional standards and guidelines for each management area are described in Chapter 4, ``Management Area Goals, Desired Future Conditions, Standards, and Guidelines." Standards and guidelines provide management direction for making decisions that help achieve the national forests' desired future conditions (DFCs), goals, and objectives.

Standards are requirements that limit resource management practices and uses for environmental protection, for public safety, or to address an issue. Standards are measurable and capable of being monitored.

Guidelines promote the achievement of goals and objectives in a manner that permits operational flexibility to respond to variations over time, such as changing site conditions or changing management circumstances.

Standards and guidelines are listed by resource program areas and begin with a description of the resource area for which the standards and guidelines apply.

Access

Forest access policy relates to allowable travel by pedestrians, horses, and motorized and nonmotorized vehicles. The Forest Supervisor has authority to close *roads* and *areas* for safety and resource protection. Also, areas may be closed to some types of access to achieve a desired future condition. For example, congressionally designated wilderness areas are restricted to horse, canoe, wheelchair (including motorized, if required for everyday mobility), and foot travel, unless otherwise stated in the act that established the wilderness. In addition, some trails are restricted to certain types of travel to provide a desired recreation experience.

Definitions

Forest development road. A forest road under the jurisdiction of the Forest Service. Forest development roads are assigned a number and inventoried by traffic service levels A through D. Not all forest development roads are marked on the ground.

Marked, numbered road. A forest development road that is marked on the ground.

Designated trail. A designated trail is ``a trail wholly or partly within or adjacent to and serving a part of the National Forest System and which has been included in the Forest Development Trail System Plan," CFR 261.2. Designated trails are inventoried by type of user permitted and degree of maintenance. They are maintained on the trail system inventory data base. All designated trails are identified on the ground.

Motorized vehicle. Automobiles, trucks, motorcycles, all-terrain vehicles, off-highway vehicles, or any vehicles propelled by a motor, excluding motorized wheelchairs.

Unmarked travelway. A travelway that looks like a road or trail but is not on the road or trail system and is not considered a numbered road or designated trail (this includes firelines).

Cross-country travel. Cross-country travel is land travel through the forest that does not occur on an open, numbered road, a designated trail, or an unmarked travelway.

Street-legal. A vehicle that meets all the legal requirements to travel on a public road.

Access Standards

Upon Forest Plan approval, the following cross-country travel standard will be immediately in effect forestwide. Exceptions are allowed for administrative use and activities conducted under contract or permit and areas under Forest Supervisor's closure.

AC-1—

Users	Cross-country travel permitted?
People on foot	Yes
People on horseback	Yes
People on motorized vehicles	No
People on bicycles	No

The following standard, which apply to motorized vehicles and bicycles, will go into effect 2 years after Forest Plan approval. This delayed implementation period will allow time for a system of trails and marked, numbered roads to be designated in restricted areas. This process will incorporate existing travelways as much as possible and include public participation and collaboration with local user groups.

AC-2—There are three categories of areas where bicycle and motorized vehicle use varies. These areas are shown on the Access Maps in Appendix A.

1. Areas where motorized vehicles and bicycles are prohibited.

2. Areas where motorized vehicles and bicycles are restricted to open, marked, numbered roads and designated trails specified for their use.

3. Areas where motorized vehicles and bicycles are permitted to travel on open, marked numbered roads, designated trail specified for their use, and unmarked travelways.

Fire

Fire management is divided into two major program areas: prescribed fire and wildland fire. These program areas have different purposes with different standards and guidelines.

Prescribed Fire

The Forest Service conducts controlled or prescribed fires in the understory vegetation. These reduce hazardous fuel levels, improve wildlife habitats, maintain ecological processes, and create sites for the establishment of tree seedlings. Each prescribed fire is conducted in accordance with a written fire plan, as directed by FSM 5140, *Prescribed Fire*.

In 1994, the Regional Forester approved the use of wildland fire as a management tool to maintain ecological processes in wilderness and wilderness study areas on the national forests in Florida. Eleven requirements for wildland fire are listed in FSM 5142.2, *Wildland Fire*. In 1995, the Regional Forester approved the use of management-ignited prescribed fire in these areas when lightning-ignited fire does not occur with the frequency or intensity needed to maintain fire-dependent ecosystems.

FI-1—Develop a prescribed fire plan and risk assessment for prescribed fire. This includes any fire in a wilderness area that has been declared a wildland fire. Conduct and document a post-burn assessment on at least 25 percent of the completed prescribed fires.

FI-2—Obtain a burning authorization number from the State Division of Forestry and record it on the prescribed fire plan.

FI-3—A prescribed fire that exceeds, or is anticipated to exceed, one or more prescription parameter or line-holding capability and cannot be returned to prescription with project funds is a wildfire. Once an escaped prescribed fire has been declared a wildfire, it cannot be redesignated a prescribed fire.

FI-4—Display smoke warning signs on paved roads adjacent to prescribed fire projects. Delineate in the fire plan the response in the event that a prescribed fire project threatens to cause a traffic hazard.

FI-5—Protect active red-cockaded woodpecker (RCW) cavity trees during prescribed burning. This may include cutting, raking, wetting, and/or back burning fuels adjacent to active cavity trees. Do not construct plowlines within RCW clusters, unless they are needed to protect active RCW cavity trees from damage or to protect life or private property.

FI-6—It is permissible to burn the same acreage in 2 sequential years and to apply only growing-season burns to the same acreage for 3 or more sequential burning cycles.

FI-7—Minimize the use of plowed firelines for prescribed burns. Favor the use of alternatives such as disked firelines, foam, water, existing roads, or natural barriers.

FI-8—Rehabilitate new plowed firelines used for prescribed fire, unless rehabilitation will cause unacceptable damage. Wherever possible, use disked lines where permanent lines are needed.

FI-9—Do not prescribe burn heritage sites that contain surface artifacts, features, structures, or cultural remnants that could be damaged. (**Note:** Consult with district archeologist to assess risk of damage.)

FI-10—If plowed firelines are needed near designated trails, minimize visual impact and damage to the trail. Avoid plowing firelines parallel to a trail. If a plowed fireline must run parallel to a trail, keep it 100 feet away, if possible. When a plowed fireline crosses a trail, cross at right angles. Minimize heavy equipment damage to trails and restore trails to original condition afterward.

FI-11—Include provisions in prescribed burning plans that assure sensitivity to scenic resources within the view of level 1 travelways and entrance roads for level 3 or above recreation areas.

Wildland Fire

The Forest Service responds to every wildland fire on national forests with an appropriate suppression response. This response could range from monitoring a nonthreatening fire to a full-scale attack of a fire that threatens life, property, and resources. In addition, naturally-occurring fires within wilderness and wilderness study areas may be managed for resource benefit, as described in the *Federal Wildland Fire Policy and Program Review (*U.S. Department of Agriculture and U.S. Department of Interior, Washington, D.C., December 1995). Wildland fires in all other areas of the national forests may not be managed for resource benefit; however, the full range of other appropriate suppression responses is available. Fire control lines may consist of roads or natural barriers (such as wetlands), foam or water lines, or disked or plowed firelines. The Forest Service tries to minimize the use of plowed firelines. The incident commander has full authority to select the appropriate suppression response based on line officer delegation, values at risk, predicted weather, burning conditions, forces available, resource damage potential, and total forestwide wildland fire situation.

FI-12—Evaluate all naturally-occurring wildland fires within wilderness for appropriate response. If the line officer decides to managed the fire for resource benefit, a wildland fire situation analysis must be prepared along with prescription parameters.

FI-13—Rehabilitate all new plowed firelines used for wildfire suppression, unless the rehabilitation will cause unacceptable damage. This includes existing firelines that become redisturbed.

FI-14—Do not place a ground-disturbing fireline within boundaries of a heritage site, unless the fireline directly benefits the heritage resource or protects life or property.

Heritage Resources

Sites of archeological, historical, and cultural significance can be found on the national forests. These include remains of Native American villages, historical home sites, grave sites, and sites where culturally important events occurred. Many sites are known, but others have yet to be discovered. The Forest Service seeks to protect sites that are important to our heritage. Under Federal law direction, *National Forests in Florida* works with the Florida State Historic Preservation Office (SHPO), with whom it has a Memorandum of Understanding, to make sure that no sites are damaged. For a known site, protection might include avoiding any activity that could affect it and keeping information about it confidential to prevent looting. For undiscovered sites, protection includes estimating the likelihood that a site may occur in a given area and then reviewing every activity, whether it be a Forest Service or a public activity, for its possible effect on a site. To protect undiscovered sites from looting, for example, use of metal detectors is restricted. *National Forests in Florida* also promotes research and teaching the public about heritage resources.

HE-1—If cultural resources are encountered, regardless of whether the area has been previously disturbed, halt activities and notify Heritage Program personnel.

HE-2—Require Archeological Resources Protection Act (ARPA) permits for all archeological research that is not performed under the personal supervision of Forest Service Heritage Program personnel. When a qualified professional obtains an ARPA permit, that person may be allowed to study heritage resource sites. Archeological surveys performed under contract for the Forest Service do not require an ARPA permit.

HE-3—Use interagency agreements or Memoranda of Understanding to:

1. cover archeological surveys of a repetitive nature under one ARPA permit as opposed to individual ARPA permits, and

2. identify ``no impact'' activities/projects that do not require archeological survey (e.g., repainting the lines on roads).

HE-4—Disclose the location of sites to Forest Service personnel only if appropriate resource management requires that knowledge. If site information is to be given to a cooperator, stipulate within the agreement with the cooperator how that information will be shared. Keep site locations confidential, except for public education and interpretation. In particular, do not disclose site location unless disclosure is determined to have a ``no effect'' or ``no adverse effect'' on the site. For more information regarding this determination, *see* FSM 2361.32a, *No Effect*; FSM 2361.32b, *No Adverse Effect*; FSM 2361.32c, *Beneficial Effect*; and FSM 2361.32d, *Adverse Effect*.

HE-5—Do not exhibit or display human remains. Keep confidential any reburial location of human remains. Afford these remains the same protection as human burials in their original location. Protect Native American human remains, graves, and funerary items according to the Native American Graves Protection and Repatriation Act (NAGPRA).

HE-6—Allow on-site interpretive services, subject to advice by forest archeologist, only when adequate protective measures are in place to ensure protection of resources.

HE-7—Prohibit metal detector use, except

1. in areas where administrative work—such as law enforcement investigation, permitted research activities, and surveying—is being conducted, and
2. in recreation areas that have been cleared specifically for metal detector use. At the entrance to the area, post the information that the recreation area is open to metal detector use.

Site Occurrence Unknown

See the Memorandum of Understanding with SHPO to determine the appropriate level of review for activities in zones of high, medium, and low site probability.

Sites Are Known, Significance Is Unknown

HE-8—Until a site's significance is determined, do not interpret it for the public and do not conduct activities that could disturb it.

HE-9—When ground-disturbing activities are planned within 200 feet outside of site boundaries, clearly mark site boundaries so site can be seen and avoided.

Site Occurrence Known, Site Is Not Significant

HE-10—Use minimal impact methods for ground-disturbing activities as defined in the Memorandum of Understanding.

HE-11—Retain nonsignificant historic structures until they have been documented.

Site Occurrence Known, Site Is Significant

HE-12—Mitigate management activities within site boundaries, as listed in the Memorandum of Understanding.

HE-13—Minimize or avoid management activity impact on the site. For example, chemical site preparation might be used as a silvicultural alternative to mechanical site preparation.

HE-14—If a site will be affected, excavate a representative percentage of that site.

HE-15—For sites containing human remains, follow the guidelines found in Chapter 872, Florida Statute ``Offenses Concerning Dead Bodies and Graves''; Regional Policy Statement ``Treatment of Human Remains''; and Heritage Program Guidelines. For Native American remains, apply NAGPRA protocol procedures.

HE-16—When ground-disturbing activities are planned within 200 feet outside of site boundaries, clearly mark site boundaries so site can be seen and avoided.

HE-17—Implement site protection measures, such as:

1. Stabilization
2. Erosion control
3. Signing
4. Road closure
5. Vegetative screening
6. Closure order for metal detector possession and/or use
7. Confidentiality of site location information
8. Patrolling sensitive sites on rotating schedules
9. Interpreting preservation ethics to the public
10. Archeological salvage of data threatened with imminent destruction or loss
11. Treating historic structures for insect infestation
12. Repairing damage from natural deterioration and vandalism

Infrastructure

The infrastructure of the national forests includes the roads and buildings necessary for appropriate management of the national forests. The design and management of these are regulated by both national standards and Forest Service manuals and handbooks. The primary goal of these regulations is to ensure safety and minimize environmental damage.

Road Management

The location and design of roads on the national forests are guided by FSH 7709.56, *Road Preconstruction Handbook*. This handbook provides direction for producing safe, environmentally appropriate roads. When a project requires road access, the first choice is to provide access along existing roads and travel routes. The maintenance of system roads is guided by FSH 7709.58, *Transportation System Maintenance Handbook*, which describes different levels of maintenance for different levels of forest development roads.

IN-1—Reduce the negative hydrological impact of existing and future roads by placing structures, where necessary, to reestablish or maintain natural water flow.

IN-2—Close and return to resource production all existing roads, whether temporary or system roads, that are not needed for resource activities.

IN-3—Close system roads in the following cases:

1. To reduce unacceptable impacts on proposed, endangered, threatened, or sensitive (PETS) species or their habitats.

2. When extreme law enforcement situations exist.
3. Temporarily, when safety hazards exist.
4. For special research.
5. For seasonal closures at specific sites.
6. Other management reasons.

Building Management

FSH 7309.11, *Building and Related Facilities Handbook*, guides the maintenance of Forest Service buildings. Newly constructed buildings must meet accessibility and energy conservation requirements. Older buildings can be retrofitted to meet these standards as funds become available.

Insect and Disease Control

The Forest Service recognizes that a healthy ecosystem has periodic outbreaks of insects and diseases. If an outbreak threatens to cause significant losses or adversely affect PETS species, the Forest Service will take measures to reduce the hazard. Standards and guidelines specific to southern pine beetle and insects affecting RCWs are found in *Record of Decision, Final Environmental Impact Statement for the Suppression of the Southern Pine Beetle, Southern Region* (FEIS SPB R8) and *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region*.

Lands

The Forest Service buys and occasionally exchanges property, maintains boundaries of the national forests, and considers, and grants, requests for special uses of national forest land. The guidelines for these activities are found in FSM 5400, *Landownership*; FSM 5500, *Landownership Title Management*; and FSM 2700, *Special Uses Management.*

Land Purchase and Exchange

The Forest Service may purchase or exchange land or partial interests. No property leaves a national forest unless its exchange has been approved through a process that includes public notification and input and evaluation of the property's importance.

LA-1—Maintain a landownership adjustment map based on the goals and objectives for a given area.

LA-2—Use the following criteria to guide property acquisitions.

1. Highest priority (not listed in any order of priority):

    a. Property associated with riparian ecosystems, such as water frontage on lakes and major streams.

b. Habitat for proposed, endangered, or threatened species.

c. Property having unique historical or heritage resources, when these resources are threatened or when management may be enhanced by public ownership.

e. Property valuable for outdoor recreation or needing protection for aesthetic purposes.

f. Property needed for protection and management of administratively and congressionally designated areas.

g. Property needed to enhance or promote watershed improvements that affect the management of national forest riparian areas.

h. Environmentally sensitive property, such as wetlands and old-growth forests.

i. Buffer property needed for protection of property acquired for specific purposes listed above.

j. Large parcels of property that are within or adjacent to existing national forest boundaries and that promote critical ecosystem protection and wildlife habitat linkages.

k. Property to consolidate national forest ownership and reduce land-use conflicts.

l. Property that provides links to other public lands.

2. Second priority (not listed in any order of priority):

   a. Key tracts of an ecosystem that are not urgently needed but will promote more effective management of the ecosystem and will meet specific needs for vegetative management, valuable watershed management, research, public recreation, or other defined management objectives.

   b. Property needed to protect resource values by eliminating or reducing fire risks, soil erosion, or occupancy trespass cases.

   c. Property needed to reduce expenses by taking advantage of common efficiencies.

3. Third priority: All other property desirable for inclusion in the National Forest System.

LA-3—Allocate new acquisitions to a management area at least annually. Until that is completed, manage the acquisition in a custodial fashion—providing basic public safety, protection, and status quo maintenance of the land, resources, and infrastructure.

LA-4—Consider first for exchange those national forest lands or partial interests with the following characteristics:

1. Property inside or adjacent to communities or intensively developed private land and chiefly valuable for purposes other than national forests.

2. Property or interests that best serve a public need in State, county, city, or other Federal agency ownership.

3. Property under special-use authorizations and occupied by substantial structural improvements.

4. Property having boundaries, or portions of boundaries, with configurations that make management inefficient—such as projecting necks or long, narrow strips of land or land discontinuous from the main body of the national forest.

LA-5—Acquire or exchange access with other agencies, states, counties, and private interests as necessary to ensure management objectives are met.

LA-6—Do not exchange national forest lands that have significant heritage sites or threatened or endangered species until they have been mitigated.

Land Boundary Maintenance

In Florida, the national forests have more than 1,200 miles of boundary lines. The Forest Service seeks to maintain national forest boundary lines so that resurvey is not needed. Established lines should be re-marked every 7 years. The Forest Service also works to resolve questions of boundary location. When boundary lines change as a result of acquisitions, exchanges, claims, and Small Tract Act cases, the Forest Service must ensure new boundaries are marked.

Easements, Grants for Roads and Trails

The Forest Service considers applications for road easements for access to private property. Easements are granted only if no other reasonable access is possible. Occasionally, the Forest Service seeks easements from other landowners when there is a demonstrated need for the access and the road or trail cannot be accommodated on national forest land.

LA-7—When feasible, issue a single easement to a collective group that could share the travelway rather than issue individual easements.

Special Uses

Members of the public approach the Forest Service with a diverse array of ideas about how to use national forest lands. The Forest Service must always weigh whether the proposed use is compatible with the values that make the national forests irreplaceable forests—including plants, animals, beauty, clean air and water, recreation opportunities, and forest products. Applicants for special-use permits should note that the permitting process may be time-consuming, may require multistep National Forest Management Act analysis and National Environmental Policy Act (NEPA) documentation, and ultimately may not be approved.

LA-8—Evaluate special-use applications to see if they are in the public interest. At a minimum, these proposals should:

1. be consistent with Forest Plan management area objectives, standards, and desired future conditions,

2. be consistent with other applicable Federal, State, and local statutes and regulations, and

3. not be undertaken on national forest land if they can be reasonably accommodated on private land.

LA-9—Designate existing transportation and utility routes, and rights-of-way capable of accommodating these facilities as right-of-way corridors. Subsequent right-of-way grants will, to the extent practicable, be confined to designated corridors. Transportation and utility route proposals for crossing national forest land will be evaluated initially on a National Forest System policy basis. Purpose, need, surrounding issues, Forest Plan desired future conditions, public values for national forests, and alternative locations off national forests will be reviewed in detail.

LA-10—For resource collection, follow direction in FSM 2719, *Uses For Which Special-Use Authorizations Are Not Required*, and FSM 1563, *Tribal Governments*. Native Americans may be given free-use permission to collect resources from national forests for traditional and ceremonial use. Some restrictions may apply on collections from some areas and of some species.

Recreation Residences

A generation ago *National Forests in Florida* participated in a national program intended to increase recreational use of national forests. This program permitted private individuals to build unobtrusive recreation residences in designated sites on the national forest. Many of these private residences still exist and continue to be regulated by the Forest Service.

LA-11—Do not issue recreation residence permits on lots not already occupied by a recreation residence.

LA-12—If a recreation residence permit is revoked due to noncompliance, do not reissue permit. The lot will no longer be available for recreation residence use.

LA-13—If a recreation residence is destroyed by a catastrophic event and the permittee decides not to rebuild, do not make the lot available for recreation residence use. The permittee has 180 days to decide and 1 year after the decision date to complete the rebuilding.

LA-14—If inspection discovers noncompliance with permit terms and conditions, use the following procedures:

1. Following a determination of noncompliance, give written notice to permittee regarding permit violations.

2. Follow the procedures and time frames included in the permit.

3. Failure to comply with will result in a request for removal of the improvements, which if not carried out by the permittee will result in a notice of impoundment. Impoundment, search and seizure procedure will be coordinated with a Forest Service Special Agent or Law Enforcement Officer.

LA-15—The desired condition for the ``public access strip''—the narrow strip (25'- 75' in width) of national forest land located between the recreation residence lots and adjacent water body (river, pond, lake)—is to allow the vegetating to be in a natural forested condition with no structures or human-introduced features present, with the exception of erosion control or other environmental protection features. This strip is to provide access and enjoyment to the forest user.

LA-16—Current recreation residence permits that allow for existing improvements or vegetative modifications in the public strip will remain in effect. No additional improvements will be allowed in the public strip, by current or future permit holders. Due to their improvements and modifications in the adjacent public strip, these lots are considered ``waterfront.'' The land in the public strip is available for general public use, but the improvements (docks, tables, etc.) are for the exclusive use of the permit holder as they are the responsible party for the condition of the improvements.

LA-17—Current recreation residence permits that do not contain improvements or vegetative modifications in the public strip will remain in effect. Other permit holders who have a presence in the strip may choose to remove the improvements and allow the vegetation improvements and allow the vegetation to recover. No further improvements or modifications will be allowed. Due to the absence of improvements and the natural character of the public strip, the adjacent recreation residence lot is considered nonwaterfront.

LA-18—The Forest Service may permit new structures in the public strip for erosion control or other environmental protection.

Law Enforcement

Unfortunately, national forests occasionally are sites of illegal activities—such as dumping, timber theft, damage to resources, arson, possession of illegal drugs, and violations of laws regulating recreation and wildlife use. To deal with this, the Forest Service has a law enforcement program, guidance for which is found in FSM 5300, *Law Enforcement*. The goal of the program is to prevent criminal violations, protect all people on the national forest as well as both public and private property, and inform all national forest users of applicable laws and regulations. Forest Service law enforcement officers and special agents receive extensive training and are charged to take aggressive action to discover and investigate all violations and take appropriate civil or criminal action. The Forest Service also participates in cooperative law enforcement agreements with State and local authorities to enforce State and local laws on national forests.

Minerals

Mineral and energy resources within national forests may be available for exploration and mining. Regulations governing any specific activity depend on who owns the mineral rights (in Florida, mineral rights are privately owned on about 5 percent of the national forests), whether the land involved is public domain or acquired land (parts of the Ocala and Osceola NFs are public domain land, the rest is acquired land), and what kind of mineral or energy resource is involved. FSM 2800, *Minerals and Geology*, acts as the guidebook. The Forest Service regulates the extraction of common mineral materials such as sand and clay through the special-use permitting process. However, both the Forest Service and Bureau of Land Management (BLM) are involved in other mineral or energy resource (e.g., oil, gas, gold, or titanium) leasing. Management of BLM administered minerals in the State of Florida is guided by the *Florida Resource Management Plan and Record of Decision*, USDI BLM, Jackson District, Eastern States, 1995.

A permit is required to prospect on national forest lands. Permit applications will be evaluated for their consistency with the management area objectives and with Federal, State, and local statutes and regulations. A prospecting permit does not automatically give the successful prospector the right to mine the minerals found.

Leasable Minerals

Gas and oil resources require two decisions prior to BLM offering them for competitive bid. The first decision is whether gas and oil are available or unavailable for lease consideration. This is referred to as the ``availability decision." A second decision is whether to lease specific (specified) lands. This is referred to as the ``leasing decision." Due to the low probability of mineral potential and the lack of leasing interest for these minerals, the availability and leasing decisions will not be made in this Forest Plan. If at a later date, there are expressions of interest in leasing specified lands, further environmental analysis will be conducted.

Existing wilderness areas and wilderness study areas are legislatively withdrawn from mineral entry (common minerals) and leasing (oil, gas, gold, or titanium). The Osceola NF is closed to entry for the purpose of phosphate removal. Upon review, these withdrawals are deemed appropriate and no further action is required. Recommended additions to the wilderness system or National Wild and Scenic Rivers System will be guided by the appropriate legislation.

MI-1—Wherever possible, discourage surface disturbance in bottomlands, wet prairies, savannahs, swamps/bays, sensitive landscapes, and occupied habitat of proposed, endangered, threatened, or sensitive species.

MI-2—To maintain visual quality, do not allow mineral development facilities, except common variety minerals, within 1,000 feet of:

1. any traffic service level A or B road,
2. a level 3 or higher trail near a recreation area,
3. a level 3 or higher recreation area, or
4. the Florida National Scenic Trail.

MI-3—Do not allow a borrow pit to be constructed in a special management zone (new term for streamside management zone) or within ¼ mile of a homesite.

MI-4—To maintain visual quality, require a minimum distance of 300 feet between a new borrow pit and a level A or B road, a designated trail, or an entrance road to a recreation area, unless it can be screened from view.

MI-5—When there is no expectation that a borrow pit will be used again, reclaim to state and county specifications, restore it to a safe condition and revegetate it, or develop it into a pond if desirable.

Range

The Forest Service allows grazing in designated areas of national forests. Permits for grazing are based on a bidding process, with fair market value the minimum acceptable bid. Forest Service direction for range management is found in FSM 2200, *Range Management*, and FSM 2209, *Range Management Handbooks*. Cattle grazing is allowed only in MA 7.2 (*see* Chapter 4, ``Management Area Goals, Desired Future Conditions, Standards, and Guidelines'').

RA-1—If range allotments remain vacant for 5 consecutive years, the allotment will be closed.

Recreation

Trails

In the national forests, recreational travel is a popular activity, whether it be on foot, on horseback, on a bicycle, on a motorcycle, on a four-wheeled vehicle, or in a boat. Much of this activity occurs on the numbered road system and on the network of unmarked travelways. In addition to these multipurpose routes, the Forest Service develops and maintains designated trails, as guided by FSH 2309.18, *Trails Management Handbook*, *Trails South R8 Handbook*, and *Florida National Scenic Trail Comprehensive Plan*.

RE-1—Avoid locating segments of designated trails on open Forest Service development roads, except to provide for user safety, to avoid sensitive resources, or to make necessary trail connections.

RE-2—To maintain the visual quality of a designated trail, do not locate new roads, temporary roads, or skid trails on a nonmotorized trail tread. Where this conflict arises, relocate either the road, skid trail, or trail. New roads, temporary roads, and skid trails may cross a trail at right angles.

RE-3—To maintain visual quality, discourage camping within 200 feet of a trail, unless it is in a designated camping area.

RE-4—Design new trails to avoid gopher tortoise burrows. In general, keep the trail at least 50 feet away from the burrow entrance. If a gopher tortoise makes a new burrow within 50 feet of an existing trail, it is not necessary to adjust the trail.

RE-5—On the national forests, maintain the hiking-only designation of the Florida National Scenic Trail.

Recreation Facilities

A variety of recreation facilities is provided on the national forests—including picnic areas, fishing piers, swimming areas, boat access sites, and rifle ranges. Management of these areas is directed by FSM 2330, *Development Sites in Public Sector*. These areas may be open year-round or seasonally, and some facilities have user fees.

RE-6—Within the area of concentrated use in level 3 or above recreation areas and facilities, generally use mechanical methods for vegetation management.

Camping Areas

The Forest Service provides designated camping areas at various levels of development, from very primitive to highly developed. The desired amenities by level are:

Level 1 - fire pit.

Level 2 - fire pit or ring; minor trailhead; signs; vault, pit, or portable toilet; water pump; and wooden picnic table.

Level 3 - bulletin boards; charcoal grill; flush toilet, sink, and shower; garbage can; lantern post; leveled tent pad; major or minor trailhead; play area; pavilion; sanitary station; surface parking spur; tilt-back fire ring; water hydrant; and wooden picnic table.

Level 4 - bulletin boards; charcoal grill; drinking fountain; electrical hookup; flush toilet, sink, and shower with hot water; garbage can; interpretive displays; lantern post; major or minor trailhead; paved parking spur; pavilion; play area; recycling bin; safety lighting; sanitary station; surfaced tent pad; tilt-back fire ring; waste sump; water hydrant; and wooden picnic table.

Level 5 - bulletin boards; charcoal grill; concrete/wood or synthetic material picnic table; drinking fountain; electrical hookup; flush toilet with changing area, sink, and shower with hot water; garbage can; interpretive displays/kiosks; lantern post; major trailhead; paved parking spur; paved tent pad; pavilion; play area with concrete/metal/ plastic play forms; recycling bin; safety lighting; sanitary station; tilt-back fire ring; waste sump; and water hydrant.

During the general gun hunting season, primitive or tent campers are required to use designated camping areas. Outside that season, primitive or tent campers may set up their campsites in most places on the national forests. To develop and maintain camping areas, the Forest Service follows guidance found in FSM 2330.0, *Publicly Managed Recreation Opportunities*, Exhibit 01; and FSM 2334.03, *Campgrounds and Picnic Grounds*. User fees are common at the more developed camping areas.

Interpretive Facilities

The Interpretive Services program teaches forest visitors about the rich natural and heritage resources found on national forests, as well as how the Forest Service manages the land. This information is often developed in cooperation with other land management agencies or interpretive associations. The goal is to provide information in a timely, accurate, and appealing way.

Scenic Resources

Scenic management standards designed to dovetail with ecosystem protection and recovery activities will be applied to management activities to ensure that the scenic quality of the forest will be maintained. In many instances, management activities designed for sustaining and enhancing forest ecosystems will adequately address scenery management requirements. The process for evaluating the scenic resource and determining standards for managing the scenic quality of the forest is guided by Agriculture Handbook Number 462, *National Forest Landscape Management*, Volume 2.

Several standards presented in the other resource sections of these forestwide standards are designed to provide direction for scenery management. They provide mitigation measures for other resource activities taking place within, and affecting the landscapes of, sensitive viewing locations and travel corridors (roads, trails, and rivers) in the forests. These areas were previously mapped and analyzed for the Visual Resource Management System and remain substantially valid until the revision of the Visual Resource/Scenery Management System is complete.

The general principal for scenery management applied to sensitive viewing areas and travel corridors is that human activities should be in keeping with the scale and patterns of the landscape being viewed (characteristic landscape).

Scenic Byway

National Forests in Florida is proud to have a National Scenic Byway—Apalachee Savannahs Scenic Byway on the Apalachicola NF. As well as being scenic, the byway is home to several rare species and unique ecological communities. The Forest Service and the University of Florida's Department of Landscape Architecture formed a partnership to develop a plan for the byway. This resulted in a series of four documents that blend the disciplines of landscape ecology and environmental psychology. The documents provide guidelines for the management of the byway's scenic, recreation, and interpretive values. The *Management Guide: Apalachee Savannahs Scenic Byway*, along with its sister documents, will be used to help guide in the management of this specially designated travel corridor.

Vegetation

When *National Forests in Florida* was established earlier in the twentieth century, the main task at hand was reforestation. Today's forests speak proudly of that accomplished task. These forests reached early maturity a few decades later, and society's emphasis was on the commercial use of national forests. Products were harvested, including timber

and lightered stumps used by the distillates industry. Tree species composition has changed on some parts of the forests, because of the past practice of harvesting longleaf pine and replanting slash pine. Wildfires also were aggressively suppressed. We now understand that fires are naturally frequent in this part of the world and many forest species need them. Lack of fire has allowed some species to encroach on others. In coming decades, the Forest Service faces the challenge to thin young stands (to encourage vigorous growth into older ages and help suppressed understory species), restore longleaf pine, and burn frequently with prescribed fire to push back the encroachment that occurred in the absence of fire.

National Forests in Florida follows the guidelines found in the *Record of Decision, Final Environmental Impact Statement for Vegetation Management in the Coastal Plain/Piedmont*. The standards and guidelines below are consistent with that document and are, in places, more restrictive.

Proposed, Endangered, Threatened, and Sensitive Species

The U.S. Fish and Wildlife Service (USFWS) is responsible for listing proposed, endangered, and threatened species. The Forest Service cooperates with that agency's efforts in conserving these species. The Forest Service conducts activities and programs to assist in the identification and recovery of threatened and endangered plant and animal species. In addition, the Forest Service has identified sensitive species that are showing significant declines in population numbers, density, or habitat capability and manages them to prevent further decline. Site-specific evaluations are conducted for any proposed activity that may take place within habitat for these species or near known populations. Measures are taken to avoid adverse effects.

VG-1—For the species listed below, inventory suitable habitat and monitor known sites to provide population status, distribution, and trends that will contribute to the delisting of these species.

VG-2—During wildland fire suppression efforts, avoid placing disked or plowed lines in Harper's beauty, Florida skullcap, Godfrey's butterwort, and white birds-in-a-nest habitat. Rehabilitate any lines soon after the fire suppression effort is complete.

Harper's Beauty. This endangered plant species is known only on the Apalachicola NF. The Forest Service protects it by following guidelines found in the *Harper's Beauty Recovery Plan*, USFWS. Specific management practices favoring recovery of this species include prescribed burning on a 3-year average and avoiding mechanical ground disturbance in suitable habitat.

Florida Skullcap, Godfrey's Butterwort, and White Birds-in-a-Nest. These threatened plant species all inhabit poorly drained coastal pinelands and are found, among other places, on the Apalachicola NF. The Forest Service protects them as guided by *Recovery Plan for Four Plants of the Lower Apalachicola Region, Florida*, USFWS. Specific management practices favoring recovery of these species include prescribed burning on a 3-year average and avoiding mechanical ground disturbance in suitable habitat. In addition, wet savannahs and cypress-dominated wetlands are unsuitable for timber production which precludes timber-related impacts to Godfrey's butterwort and Florida skullcap.

Apalachicola Rosemary. This endangered species has not been found on the national forests in Florida. The *Recovery Plan for Apalachicola Rosemary*, USFWS, advises that it should be searched for on the Apalachicola NF, where it appears that suitable habitat exists. The Forest Service follows this guidance.

Florida Bonamia, Scrub Buckwheat, and Small Lewton's Milkwort. Florida bonamia is a threatened species, with the healthiest population occurring in the Big Scrub of Ocala NF. Scrub buckwheat (threatened) and small Lewton's milkwort (endangered) also occur on Ocala NF, where they straddle the scrub and high pineland habitats. In protecting these plants, the Forest Service is guided by *Recovery Plan for Nineteen Florida Scrub and High Pineland Plant Species,* USFWS. Specific management practices favoring recovery of these species include harvesting sand pine in the scrub ecosystem to provide disturbance at a scale similar to that experienced through natural, periodic, catastrophic fire.

VG-3—Maintain ecotonal areas between longleaf pine-turkey oak and sand pine scrub by prescribed burning every 2-7 years.

Maintenance/Restoration of Potential Natural Vegetation

In the national forests, there are areas with rare plants and communities that can be damaged by ground-disturbing activities. Protection of these is an important part of the Forest Service direction to preserve biodiversity. At the other end of the spectrum, each national forest has areas in which past practices have resulted in conditions outside the range of natural variation. In some cases, the most cost-effective way to pursue a restoration project is to sell timber that needs removal. To the casual viewer, this may look like timber production, but there is a difference. The goal of a restoration project is returning the native vegetation to a site. Such restoration projects may occur in management areas that are unsuitable for timber production.

VG-4—Locate and perpetuate seepage bogs, spring runs, sinkhole edges, dwarf cypress forests, savannahs, wet prairies, areas of extreme range locations of selected species (such as Atlantic white cedar), and areas of high concentration of rare species. As ongoing study recognizes additional significant botanical sites, they will be included in this list.

1. In these areas, reduce new events of ground disturbance for reasons other than restoration. Close these areas to any use that may rut or erode the ground or disturb native plants.

2. Avoid ground-disturbing firelines in these areas, except as necessary to protect life, private property, or PETS species. Restore firelines within 3 months, except where restoration itself would cause further damage.

3. Promote restoration of these sites. Choose restoration practices that will not cause undue further degradation.

VG-5—In areas where titi has encroached, run hot fires into the titi or chop and burn the area. Seek to minimize soil disturbance when chopping.

VG-6—In areas where slash pine has been planted off-site, schedule a change in species to the appropriate native species.

VG-7—Even if a stand of trees to be regenerated is not in timber production, use the standards found in the ``Timber Production'' section to guide regeneration and stand improvement activities.

Timber Production

In the Organic Act of 1897, Multiple-Use Sustained-Yield Act of 1960, and National Forest Management Act of 1976, Congress directed that one of the purposes of national forests shall be the production of timber. In the national forests in Florida, the primary timber species are longleaf and slash pine (found on Apalachicola, Ocala, and Osceola NFs) and sand pine (found primarily on Ocala NF).

VG-8—Do not manage hardwood or cypress stands or inclusions for timber production. Hardwood and cypress can be managed and harvested for other resource objectives.

VG-9—In even-aged pine stands selected for changing to uneven-aged, initiate group selection cuts when enough trees are of cone-bearing age to provide a reliable seed source and stocking level is such that an adequate amount of trees is left after harvest. This change will require several entries at 10-to-20 year intervals.

VG-10—In uneven-aged management, determine size-specific harvest rates based on the current and future desired tree density, standing biomass, and diameter distribution. D(max) should be set to provide at least six trees per acre that are larger than 18 inches in diameter. **Note:** In the model that determines harvest rates, setting q in the range of 1.2 to 1.4 and D(max) to 22 inches is appropriate, though site-specific analysis may indicate better choices.

VG-11—In longleaf and slash pine, group selection and irregular shelterwood harvest areas, retain, if available, at least six pine trees per acre that are larger than 18 inches in diameter. This may be averaged over the cutting unit instead of leaving six trees on each acre.

VG-12—To enhance wildlife habitat, retain throughout the forest all relict and flattop longleaf and slash pines and some that are misshapen, poorly formed, or suppressed.

VG-13—Design group selection harvests so new openings created during an entry range from ¼ to 2 acres.

VG-14—To maintain soil fertility, require trees that are cut in a timber sale be topped and limbed where they are felled (severed from the stump), unless it is impractical to do so or analysis shows it to be undesirable. If a limbing gate or other device is used, require slash to be distributed across the site.

VG-15—To enhance visual quality, require that slash, tops, and logging debris be piled no more than 2 feet high within 100 feet of levels A and B roads and designated trails.

VG-16—During regeneration, favor tree species that are native to the site.

VG-17—Use prescribed fire as the preferred method of site preparation in longleaf and slash pine sites.

VG-18—Minimize soil-disturbing site preparation in longleaf and slash pine sites. When disturbance is necessary to achieve the desired future conditions, use methods that displace no more than 10 percent of the soil surface in the treated area. The objective should be to maintain the integrity of the native herbaceous vegetation (especially wiregrass) over time.

VG-19—If herbicides are used for site preparation, use only spot grid or strip application or individual stem or directed foliar spray. Do not use herbicides for site preparation within 60 feet of any known PETS plant species, except where it is necessary to restore PETS habitat. Clearly mark buffers around PETS species so applicators can see and avoid them. Consider the visual impact of herbicide use for site preparation within 100 feet of a designated trail to maintain the trail's visual quality.

VG-20—To enhance visual quality, the row effect will not be evident when planting trees along levels A and B roads and designated trails.

VG-21—Use the following restocking levels as guides in conjunction with professional judgement to determine acceptable restocking based on the likelihood that additional efforts will greatly increase stocking, site capability for timber production, and ecosystem health objectives.

	Lower Level	Upper Level
Longleaf Pine	200	1,200
Sand Pine	200	1,500
Slash Pine	250	900

VG-22—Do not allow fertilization for timber production.

VG-23—Thin stands of longleaf and slash pine to capture mortality, maintain or improve growing conditions for the remaining stems, improve habitat conditions for PETS species, or improve growing conditions of understory species.

VG-24—Manage suitable forestland acres of sand pine to maintain 5 percent in age classes from 55 to 80.

VG-25—Use clearcut as the preferred method of final harvest in sand pine. Use all other silvicultural practices to meet site-specific needs.

VG-26—During sand pine harvesting, leave as many standing snags as possible. If an average of one snag per acre is not present, leave live trees to bring the total to one per acre. Where possible, to enhance the visual quality, leave clumps of up to 4 trees.

VG-27—Decide, on a case-by-case basis, to protect oak scrub stands or convert them to sand pine stands. Scrub-jay habitat suitability is one of the considerations in the decision.

VG-28—In inactive bombing ranges, schedule final harvest of sand pine in July, August, and September, when possible, to increase the likelihood that the site will regenerate naturally. Do not use ground-penetrating equipment; unexploded munitions may be present.

VG-29—Sell no more than 103 million cubic feet (MMCF) of chargeable timber from suitable land (Appendix B, ``Lands Suitable for Timber Production'') in the 10-year planning period.

VG-30—When even-aged regeneration harvests are scheduled within the view of level 1 travelways and level 3 or above recreation area entrance roads or facilities, the harvest shall be planned with concern for scenery values. Coordinate with personnel trained in the Scenery Management System.

VG-31—When even-aged regeneration harvests are scheduled within the view of level 1 travelways and level 3 or above recreation areas, harvesting should begin in the background and the viewed area should be cut last to limit exposure to visual impacts.

Genetic Resources

National Forests in Florida participates in the genetic resource program of the Forest Service. The Genetic Resource Management Area on the Ocala NF is part of this program, as are various progeny tests located on the forests. The original purpose was to propagate trees that showed traits of rapid growth, high wood quality, and stress resistance that make them better than average for timber production. Orchards of such trees have been established and are used as seed sources for some of the pine regeneration on the forests. Under ecosystem management, focus of the genetic resource program has expanded to include genetic conservation. The Ocala Genetic Resource Management Area has both a sand pine gene bank and a variety of rare species being preserved by propagation. The genetic variation in these plants is being inventoried with the goal of learning how to maintain appropriate genetic diversity in each.

Salvage and Snags

When trees are killed by a natural cause, the District Ranger may sell some of the dead trees, depending on the management direction for the area and site-specific analysis.

Snags

VG-32—Remove snags only in the following locations:

1. Developed recreational sites where they pose a hazard.
2. Where the snag may fall into the travel corridor of a designated trail or a level A, B, or C road.
3. Adjacent to utility rights-of-way.
4. Where snags hinder fire management or create hazardous conditions for fire fighters.

Salvage

When salvaging sand pine, leave two to four snags per acre when possible. When salvaging longleaf, slash, loblolly, or pond pine, leave six snags per acre, when possible. In all cases, choose for retention snags with largest diameter and height.

Special Forest Products

People are interested in collecting a number of the natural products on the national forests. All collections require a permit from the District Ranger, who is responsible for setting the appropriate restrictions on both the quantity and the location of collections. Permits can be free for small quantities for personal use only. The product, location, and quantity of free uses are left to the discretion of the District Ranger. Some products are harvested for commercial use and fees are collected by the Forest Service. Some forests have established local markets and historical uses for certain products while other forests have not. The following table shows the special forest products permitted for commercial harvesting.

VG-33—Permit commercial harvesting of these special forest products on the following forests (TABLE 3.1):

Table 3.1

Special Forest Products

Special Forest Products	Apalachicola NF	Ocala NF	Osceola NF
Pine Needles			X
Pinecones		X	X
Christmas Trees		X	
Aquatic Plants			X
Deer Moss - *Cladonia spp.*	X	X	X
Sphagnum Moss - *Sphagnum spp.*			X
Spanish Moss - *Tillandsia usneoides*			X
Palmetto Berries - *Serenoa spp.*		X	X
Palmetto Fronds - *Serenoa spp.*		X	X
Turkey Oak - *Quercus laevis*	X	X	
Crookedwood or Dragonwood - *Lyonia ferruginea*		X	
Wax Myrtle - *Myrica cerifera*		X	X
Mistletoe - *Phoradendron sertinum*	X		X
Gallberry - *Ilex glabra*	X		X
Deer Tongue - *Carphephorus odoratissimus*			X
Lightered Wood	X	X	X
Earthworms	X		

Note: Quantity and location restrictions are left to the discretion of the District Ranger.

VG-34—Permit collection of firewood only in designated areas. Do not permit cutting of standing dead snags or mature oak hammocks for firewood. Developing oak hammocks will be evaluated for their relative abundance and their impact on wildlife species. If analysis indicates it is appropriate to remove some of them, firewood may be sold from these areas.

VG-35—Only sell Lyonia ferruginea and deer moss from areas scheduled for regeneration.

VG-36—Only permit lightered stump extraction where stumps occur within a proposed road, facility, or other planned construction or where their removal is part of an administrative study.

Exotic Species

Nonnative plants invade the national forests; some of these spread aggressively and can pose a significant threat to native species. The Florida Exotic Pest Plant Council has identified the most invasive ones (Appendix C, ``Invasive Plants''). The Forest Service tries to control these and to limit opportunities for invasion by any other nonnative species.

VG-37—Control invasive terrestrial and aquatic weeds. If herbicides are used, apply directly on the spot. Do not apply herbicides within 60 feet of any PETS plant species unless analysis indicates herbicide use is the best way to protect PETS plants from invasive weeds.

VG-38—Plant only native species—except nonnative (noninvasive, nonnoxious) species may be planted in wildlife plots, in developed recreation sites, in administrative sites, or for erosion control. Do not plant species capable of invading adjacent land. Use Bahia grass (*Paspalum notatum*) where it is the only practical option.

VG-39—When a project requires mulch, require that the mulch come from a source that is certified apparently free of invasive weeds or their seeds. Hay taken from a roadside may not be weed-free.

Old Growth

The Forest Service recognizes old-growth forests as a valuable natural resource worthy of protection, restoration, and management. Old-growth forests provide a variety of values, such as biological diversity, wildlife habitat, recreation, aesthetics, soil productivity, water quality, aquatic habitat, cultural values, and high-value timber products. Direction for old-growth management is found in Chapter 4, ``Management Area Goals, Desired Future Conditions, Standards, and Guidelines.'' Additional direction can be found in *Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region*, Report of the Region 8 Old-Growth Team, June 1997.

VG-40—In addition to the large and medium-sized old-growth patches allocated in Chapter 4, small patches (1-99 acres) of existing or future old growth will be designated during field examination and inventory throughout the planning period. These small patches will be designated to help fulfill the forestwide objectives found in Chapter 2, ``Forestwide Desired Future Conditions, Goals, and Objectives,'' and the management area DFCs for MA 7.1, 7.2, 7.3, and 9.2 found in Chapter 4. Small patches will be designated as old growth in the upland longleaf pine and southern wet pine communities and classified as unsuitable for timber production. The use of RCW clusters and recruitment/replacement stands is compatible with old-growth designations. Small patches also will be designated as old growth in the dry and dry mesic oak/pine, upland mesic hardwood, and dry and xeric oak communities. These patches will be unsuitable for timber production. Any stands inventoried and found to

be existing old growth (based on Regional Guidance) will be designated as old growth and classified as unsuitable for timber production.

Watershed and Air

National forests were created for several purposes. One was to help protect watersheds and provide clean water. From its beginning, the Forest Service has recognized that soil, water, and air are the basic building blocks for properly-functioning ecosystems. Protection of these resources constitutes an investment in present and future health and productivity of national forests. Direction for this is found in FSM 2500, *Watershed and Air Management*, Federal and State laws and regulations, and local plans and regulations.

Soil and Water

For protecting water quality and soil productivity, *National Forests in Florida* uses as a baseline the silviculture Best Management Practices (BMPs), developed under the auspices of the Florida Department of Agriculture and Consumer Services. The Forest Service adds further restrictions on activities to protect water and soil or to enhance wildlife habitat. These restrictions apply to all activities. Site-specific conditions of every project are assessed, and appropriate restrictions are employed to protect resources and meet State and Federal water quality standards.

WA-1—Adhere to standards of Florida's silviculture BMPs. For a detailed discussion of these practices, see the *1993 Silviculture Best Management Practices Manual*.

WA-2—Expand Primary Zones (as defined in Florida's silviculture BMP manual) to include not just perennial lakes and ponds 2 acres or larger, but all seasonal lakes and ponds, and all sinkholes that are open to the Floridan aquifer. Apply the following zone widths (primary zone width for tributaries of Outstanding Florida Waters is determined by stream width):

Stream Width/Classification	Primary Zone Width
≤ 20'	35' per side
20-40'	75' per side
≥ 40'	200' per side
Lakes and Ponds	35'
Sinkholes Open to Floridan Aquifer	35'
Sinkhole Depression Ponds	35'
Outstanding Florida Waters	200' per side

WA-3—Prohibit timber harvesting, including salvage, in the Primary Zone, except for sand pine. Harvesting done to control the spread of insects or diseases may occur in the Primary Zone.

WA-4—Consult, when necessary, the U.S. Army Corps of Engineers, Federal Environmental Protection Agency, Florida Department of Environmental Protection (DEP), and Florida Water Management Districts concerning activities in wetlands and along navigable waters to exchange information and acquire necessary permits.

WA-5—If management activities during a project leave insufficient ground cover to control erosion, revegetate disturbed areas by the end of the first growing season.

WA-6—Restrict soil-compacting activities—including logging traffic—on Bladen, Eureka, Iberia, and Meggett soil series when the water table is within 12 inches of the surface, or when soil moisture exceeds the plastic limit. Soil moisture exceeds the plastic limit if the soil can be rolled to a pencil size without breaking or crumbling.

WA-7—Identify and protect aquifers and public water sources. Consult State DEP and Water Management Districts to assure compliance with their groundwater protection strategies.

Air Quality

The Forest Service faces the challenge of balancing the need for clean air and the need to conduct prescribed fires in fire-adapted ecosystems. Prescribed fire will reduce fuels, preventing devastating wildfires, which generate more particulates than prescribed fires. In finding this balance, the Forest Service works with State and Federal air regulatory agencies to: (1) assure a level of air quality that is adequate to promote public enjoyment of forest resources and to permit attainment of the desired future condition of forest resources, and (2) assure that modifications to the *Florida State Implementation Plan* (regulatory plan for achieving Clean Air Act goals) do not cause undue restriction on forest management prescribed burning.

WA-8—Review all proposed air pollution permits that threaten the air quality values of Bradwell Bay Class I area. Advise the permitting authority if an adverse impact is anticipated.

WA-9—Conduct all national forest management activities in a manner that does not cause: (1) a violation of the National Ambient Air Quality Standards or (2) a violation of applicable provisions of the *Florida State Implementation Plan*.

Wilderness

National Forests in Florida contains seven wilderness areas designated by Congress. These areas are managed according to the Wilderness Act of 1964, Eastern Wilderness Act of 1975, and Florida Wilderness Act of 1983. In addition, there are two wilderness study areas designated by Congress. The Forest Service seeks to preserve and protect the wilderness character of these areas, to ensure their ecosystems are governed by natural processes, and to ensure that an enduring resource of wilderness is passed on to future generations. Wild by law, these areas are part of the National Wilderness Preservation System. Using the concepts of management areas, the *National Forests in Florida* has attempted to provide a range of wilderness experiences, from the most challenging and risk-taking wayfinding to designated hiking trails and campsites. Standards and guidelines for these areas are found under Management Areas 0.1, 0.2 and 0.4 in Chapter 4.

Wildlife and Fish

Proposed,Endangered,Threatened,and Sensitive Species Management

Proposed, endangered, and threatened species are federally listed species. The Forest Service cooperates with the U.S. Fish and Wildlife Service in conserving threatened and endangered species. The Forest Service conducts activities and programs to assist in the identification and recovery of threatened and endangered plant and animal species. Sensitive species are species identified by the Regional Forester as showing significant declines in population numbers, density, or habitat capability that could reduce the species' existing distribution. The management goal for a sensitive species is to prevent it from becoming so rare that it is federally listed. A biological evaluation of whether a vegetative management project could affect any species federally listed as threatened, endangered, proposed, or identified by the Forest Service as sensitive, is done as part of site-specific forest plan implementation and project preparation. The type and amount of information used to determine effects will vary according to our knowledge of species/habitat relationships, risk to the species from proposed actions, and/or risk to species viability. ~~Appropriate project-level inventory/surveys for a TES species are the following:~~

- ~~Gathering and summarizing population occurrence data from the Forest Service and other sources such as the State Natural Heritage Program.~~
- ~~Collecting information on the amount and distribution of suitable habitat~~
- ~~Conducting field surveys to determine species occurrence, if past field surveys are not available in areas where treatments are proposed. Field surveys are only appropriate for those species that lend themselves to this type of survey. Actual field surveys may not be appropriate for species (1) when field surveys have a low likelihood of detecting the species, (2) when there is sufficient confidence that the proposed activities will have short or long-term beneficial or no effect to the species, or (3) when the science regarding species/habitat relationships and the response of habitat to proposed activities is well established.~~ Amendment #1

For any project that may affect federally listed species the U.S. Fish and Wildlife Service needs to be consulted.

Target species that are potential candidates for reintroduction or augmentation include the Florida panther or other subspecies of *Felis concolor*, red wolf, bison, red-cockaded woodpecker, Bachman's warbler, eastern indigo snake, gopher tortoise, and Florida black bear. Reintroduction and augmentation may be done to contribute to a species' recovery, restore the natural community structure, test the feasibility of species reintroduction, or provide a source for additional reintroductions on other lands.

Red-cockaded Woodpecker. The standards and guidelines the Forest Service follows to protect the red-cockaded woodpecker and its habitat are found in the *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region* (RCW EIS).

RCW Management Strategy Implementation Guide describes the process for implementing these standards, and any less-restrictive deviations from these standards require concurrence with USFWS. The basic strategy is to provide old pine trees that are suitable for nesting cavities, mature pine forest suitable for foraging with little midstory, and enough of each to maintain a healthy population. RCW habitat management area (HMA) maps are found in Appendix F.

The following three standards are deviations from the RCW Recovery Plan and USFWS foraging guidelines.

WL-1—In the Apalachicola HMA, the Forest Service will provide at least 4,100 pine stems 10 inches diameter at breast height (DBH) and a minimum of 5,500 sq. ft. of pine basal area of foraging habitat. These values are for each cluster and will be provided within ½ mile of clusters. If this is not available within ½ mile, foraging radius will be extended until foraging requirements are met, but no further than ¾ mile from the cluster center. The Forest Service will cease timber harvesting under this standard and initiate Section 7 consultation with the U.S. Fish and Wildlife Service if monitoring indicates a difference, as described in the monitoring section, in RCW variables when comparing RCW groups associated with timber harvest utilizing the reduced foraging guidelines and RCW groups that are unaffected by the new harvest standards.

WL-2—Stands within foraging habitat that average greater than or are equal to 10 inches DBH and not considered uneven-aged should be maintained with an average pine basal area of 60-110 square feet. When thinning mixed longleaf/slash pine stands, the priority is to remove slash pine and retain as much longleaf pine as possible.

WL-3—Even-aged harvesting restrictions in the next 10 years within RCW HMAs are modified as follows: Allow irregular shelterwood harvest in slash pine of up to 1,000 acres on the Apalachicola Ranger District (RD), 500 acres on the Wakulla RD, and 300 acres on the Osceola NF.

Bald Eagle. The Forest Service protects bald eagle breeding areas by meeting the guidelines established in the most recent version of *Habitat Management Guidelines for the Bald Eagle in the Southeast Region*, USFWS. Specific guidelines include:

WL-4—Within the primary nest zone (750-1,500 ft. radius from the nest site), prohibit:

1. Tree cutting, logging, construction, or mining.
2. Use of pesticides toxic to wildlife.
3. Felling snags.

WL-5—Within the secondary nest zone (750-5,280 ft. radius from the primary zone), restrict:

1. Construction of new roads and trails tending to facilitate access to the nest.
2. Use of pesticides toxic to wildlife.
3. Logging, land clearing and construction activities during nesting season.

Wood Stork. The Forest Service protects wood stork nesting, feeding, and roosting sites by adhering to the guidelines established in *Habitat Management Guidelines for the Wood Stork in the Southeast Region*, USFWS. Specific guidelines include:

WL-6—Within the primary nest zone (500 ft. radius from the outer edge of the colony site where strong visual or aquatic barriers exist and 1,000-1,500 ft. radius from the outer edge of the colony site where there are no strong visual or aquatic barriers), prohibit:

1. Logging or other vegetation removal.
2. Activities that reduce the area, depth, or length of flooding in wetlands under and surrounding the colony, except where periodic (less than annual) water control is necessary to maintain healthy aquatic woody vegetation.

WL-7—Within the secondary nest zone (1,000-2,500 ft. radius from the primary zone to a maximum of 2,500 ft. from the outer edge of the colony site), prohibit:

1. Any alteration of the area's hydrology that may cause changes in the primary zone.
2. Any decrease greater than 20 percent in the area of wetlands and woods of potential value for roosting and feeding.

WL-8—Within 500-1,000 feet of roost sites:

1. Protect vegetative and hydrological characteristics of annually used roost sites.
2. Protect vegetative and hydrological characteristics of roost sites used by flocks of 25 or more.

Florida Scrub-Jay. To protect Florida scrub-jay habitat, the Forest Service follows the guidelines found in the *Florida Scrub Jay Recovery Plan*, USFWS. This consists primarily of maintaining many acres of scrub habitat in the early successional stage used by the Florida scrub-jay. Specific standards and guidelines are found in Chapter 4 under 8.0 Sand Pine and Oak Scrub.

Gulf Sturgeon. The gulf sturgeon lives, among other places, in the Apalachicola, Ochlockonee, and Suwannee Rivers, all of which receive some waters draining from national forest land. To protect water quality for this fish, the Forest Service follows the guidelines found in the *Gulf Sturgeon Recovery/Management Plan*, USFWS.

Sand Skink. The sand skink lives below the surface in loose sand and is known to occur on the Ocala NF. To protect sand skink habitat and aid in the recovery of this species, the Forest Service follows the guidelines found in the *Recovery Plan for the Sand Skink and Blue-Tailed Mole Skink*, USFWS. Specific guidelines include:

WL-9—Maintain ecotonal areas between longleaf pine-turkey oak and sand pine scrub by prescribed burning every 2-7 years.

Gopher Tortoise and Its Burrow Commensals. The gopher tortoise and its commensals are found in dry, sandy areas on Apalachicola, Ocala, and Osceola NFs. The gopher tortoise is threatened in the western part of its range but not in Florida. Gopher tortoise burrows provide habitat that is necessary for other threatened and sensitive species. Among these are the Eastern indigo snake, guidelines for protection are found in the *Eastern Indigo Snake Recovery Plan*, USFWS. Specific standards and guidelines include:

WL-10—Protect from harm or move out of harm's way indigo snakes and gopher tortoises encountered by personnel, cooperators, or contractors engaged in activities that may endanger individual specimens. Wildlife biologist should be contacted to safely move these species and collect needed data.

WL-11—In all timber sale unit openings clearly mark a 15-foot buffer around the entrance to every gopher tortoise burrow. Keep heavy equipment out of this buffer zone during both harvesting and regeneration.

WL-12—When developing maintenance management plans for new or renewed special-use permits involving rights-of-way, include the following precautions to protect colony integrity:

1. Permittee must conduct gopher tortoise burrow surveys in suitable habitat of the right-of-way prior to performing vegetation maintenance with heavy equipment. Surveys shall be performed by personnel familiar with gopher tortoise ecology.
2. Clearly mark a 15-foot radius around each burrow and keep heavy equipment out of this buffer zone.

Florida Manatee aka West Indian Manatee. Silver Glen Spring Run on the Ocala NF is an important winter refuge for the endangered West Indian manatee in the southeastern United States. To protect this species, the Forest Service is guided by the *Florida Manatee Recovery Plan*, USFWS. Specific guidelines include:

WL-13—Restrict the construction of boating facilities to areas where their construction and subsequent use will not adversely affect manatees.

WL-14—Restrict activities that degrade manatee habitat .

Florida Black Bear. Florida black bear has been proposed for Federal listing as a threatened subspecies. Apalachicola, Osceola, and Ocala NFs provide significant habitat for this animal. The Forest Service protects Florida black bears primarily by maintaining blocks of habitat in a remote condition and by acquiring further habitat lands, so that they also can remain undeveloped.

Gray Bat. It is possible that endangered gray bats forage over parts of the Apalachicola and Osceola NFs, but roosting caves are not known on the national forests in Florida. Gray bats need forest cover near the rivers and reservoirs where they feed. To protect this species, the Forest Service follows guidelines found in the *Gray Bat Recovery Plan*, USFWS.

Florida Panther. Florida panther is not known at this time to occur on the national forests in Florida, but these lands may provide suitable habitat for population expansion of this animal. The Forest Service is guided by the *Florida Panther Recovery Plan*, USFWS, in its efforts to protect this species.

Sherman's Fox Squirrel. Sherman's fox squirrel is a species of special concern. The Ocala NF provides the fox squirrel's largest area of concentrated habitat.

WL-15—Retain all den and nest trees in intermediate harvests and when thinning key areas or inclusions.

Flatwoods Salamander. The flatwoods salamander breeds in small, shallow, intermittent ponds and lives the rest of its life a few inches below the ground in the area up to a mile from its breeding pond. It occurs on the Apalachicola NF and has been recorded in one area on the Osceola NF.

WL-16—Within the primary buffer zone (600 ft. radius) of breeding ponds:

1. Prohibit mechanical site preparation.
2. Use only selective harvest methods.
3. Harvest will only occur during dry periods.
4. Do not apply pesticides, herbicides, or fertilizers, except directed foliar application of herbicide can be used to control noxious weeds. Injection, frill, girdle, thin-line basal spray or cut stump herbicides may be used to treat undesirable trees if prescribed fire cannot be employed.

WL-17—Within the secondary buffer zone (600-1,500 ft. radius) of breeding ponds:

1. Prohibit mechanical site preparation.
2. If clearcutting is used, remove no more than 25 percent of the buffer in a single entry.
3. Harvest will only occur during dry periods.
4. Do not apply pesticides, herbicides, or fertilizers, except directed foliar application of herbicide can be used to control noxious weeds. Injection, frill, girdle, thin-line basal spray or cut stump herbicides may be used to treat undesirable trees if prescribed fire cannot be employed.

WL-18—Use prescribed fires to restore or maintain salamander breeding habitat. Emphasize growing-season burning.

WL-19—Do not alter the hydroperiod of breeding ponds.

Non-PETS Species

All Forest Service activities that promote forest health contribute to habitat improvement for the native wildlife. A few activities are focused specifically on habitat enhancement for certain species; among these are wildlife openings. There are two kinds of wildlife openings, *cultivated* and *uncultivated*. Cultivated openings are small plots where the ground is prepared and seeded to noninvasive or nonnoxious plants. In fiscal year 1995, the national forests in Florida planted 30 acres with these plants. Uncultivated openings are areas where trees are removed to enhance other plants that provide good forage or habitat.

WL-20—In constructing a new cultivated wildlife opening, choose a site in which the soil has been previously disturbed.

Wildlife Structural Habitat

Wildlife structural habitat consists of natural structures—such as snags, burrows, and stump holes, and artificial structures such as nest boxes. Such structures can be critical to

wildlife. Concerning the management of snags for wildlife purposes, see standards under the ``Vegetation'' heading. Retaining natural structures and providing artificial ones is often part of PETS species management. Many non-PETS species benefit from them, too. The Forest Service often includes in larger projects features that enhance the structural aspects of wildlife habitats.

Exotic Species

Target species that are potential candidates for control include feral (European wild) hog, feral cat, feral dog, feral monkey, piranha, tilapia species, walking catfish, nontriploid white amur (grass carp), imported fire ants, and Africanized honey bees. Control may be used to eliminate populations or to limit them to acceptable levels. Objectives of control are to protect native plant and animal community integrity, prevent resource (soil, water, or timber) damage, and protect financial investments. Nuisance native species also may be removed from specific sites.

Fishery Resources

Waters of the forests support a nationally recognized, diverse warm-water fishery resource. Populations of sport fish—including largemouth bass, bream, and catfish—inhabit the 854 miles of prominent rivers, streams, and spring runs as well as the 36,420 acres of lakes and ponds. In addition to the more than 600 naturally-occurring water bodies within the forests, at least 50 borrow pits have become permanent human-made ponds. Although most of these naturally-occurring lakes and human-made ponds are very acid, limited in nutrients, and low in biological productivity, historically they have supported viable sport fish populations with numerous trophy-size largemouth bass. In recent years, these fish populations have suffered significant decline due to overexploitation, prolonged droughts, and acidification. Current Forest Service emphasis therefore focuses on the restoration of the fishery resources of these lakes and ponds to maintain diversity and provide anglers a choice of sportfishing experiences. All lakes and ponds are categorized as primitive, native, fishery enhanced, or developed for fishery management purposes.

Primitive. Primitive lakes are permanent water bodies that are located in designated areas or that have unique conditions that make them special. They include all sinkholes open to the Floridan aquifer and all lakes and ponds inside wildernesses, wilderness study areas, research natural areas, and remote wetland areas. A few additional lakes and ponds—Bonnett Pond (Apalachicola NF); Church Pond (Osceola NF); and Gobbler Lake, Lawbreaker Lake, and Mud Lake (Ocala NF)—are added to this category, because they are either especially undisturbed or have highly unusual features. The management goal for these water bodies is to preserve them in an unaltered state.

Native. Native lakes and ponds include all the permanent water bodies that are not listed in the other categories. These water bodies support a variety of recreational activities, including moderate sportfishing. The management goal for these is to maintain ecologically healthy conditions for the entire aquatic community. Under normal circumstances, little or no active management would be expected. However, if the aquatic community

becomes unbalanced as a result of some disturbance, the Forest Service may take action to restore balance.

Fishery Enhanced. Fishery-enhanced lakes include all permanent human-made water bodies that now exist or will be established on the national forests in Florida. These ponds may be managed specifically for sportfishing utilizing a comprehensive array of fishery management activities**.**

Developed. Developed lakes are permanent water bodies that support a variety of developed recreation activities, including sportfishing. Water bodies in this category are:

1. Apalachicola NF: Camel Lake, Moore Lake, Silver Lake, Trout Pond, and Wright Lake.

2. Ocala NF: Buck Lake, Buck Pond, Crooked Lake, Doe Lake, Echo Pond, Fore Lake, Grasshopper Lake, Halfmoon Lake, Lake Catherine, Lake DeLancy, Lake Dorr, Lake Eaton, Lake Lou, Mill Dam Lake, Trout Lake, and Wildcat Lake.

3. Osceola NF: Ocean Pond and Watertown Lake.

WL-21—Fisheries management practices for the water body categories are restricted to those in Table 3.2. Use site-specific analysis to indicate whether a given practice is warranted. Application of lime and/or fertilizer to developed lakes would be permitted in an administrative ecological study to determine the effects of these applications on the aquatic ecosystem in these water bodies.

Table 3.2

Fisheries Management Practices

Management Practices	Primitive	Native	Fishery Enhanced	Developed
Reintroduce Extirpated Fish	Yes	Yes	Yes	Yes
Control Exotic Fish	Yes	Yes	Yes	Yes
Control Aquatic Vegetation	No	Yes	Yes	Yes
Manipulate Fish Population to Restore Balance	No	Yes	Yes	Yes
Introduce Fish Structures (shelters and spawning facilities)	No	Yes	Yes	Yes
Stock Native Fish to Support Sportfishing	No	No	Yes	Yes
Install Fish Feeders	No	No	Yes	Yes
Apply Fertilizer and/or Lime to Enhance Fish Production	No	No	Yes	No

CHAPTER 4

MANAGEMENT AREA GOALS, DESIRED FUTURE CONDITIONS, STANDARDS, AND GUIDELINES

For planning purposes, the forests have been divided into management areas. This chapter describes direction specific to management areas on the national forests in Florida. Goals, desired future conditions (DFCs), standards, and guidelines provide management area (MA) direction. These goals and desired future conditions may take many years to reach. Due to past modification of the environment, it will take many years for stands to reach diversity of age classes with a high proportion of old trees. Forestwide goals, standards, and guidelines apply to all management areas unless specifically exempted or modified by management area direction.

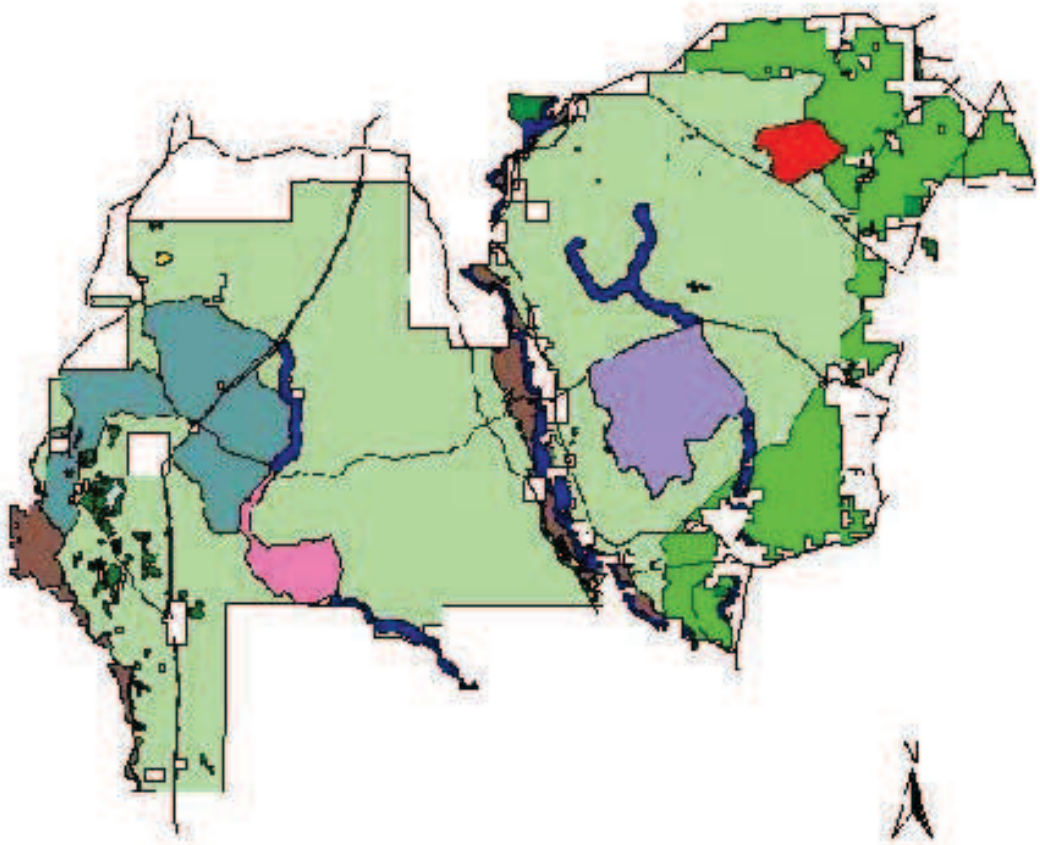
Management areas are synonymous with the desired future conditions found in the Final Environmental Impact Statement (FEIS). In some cases, such as wilderness, legal boundaries for management areas are specified by congressional acts. In others, boundaries are identified using ecological units (such as landtype associations [LTAs], see Appendix D, ``Landtype Associations''), administrative boundaries, or other physical features. The location of management area boundaries during Forest Plan implementation may result in minor boundary adjustments to reconcile ground conditions with management area descriptions.

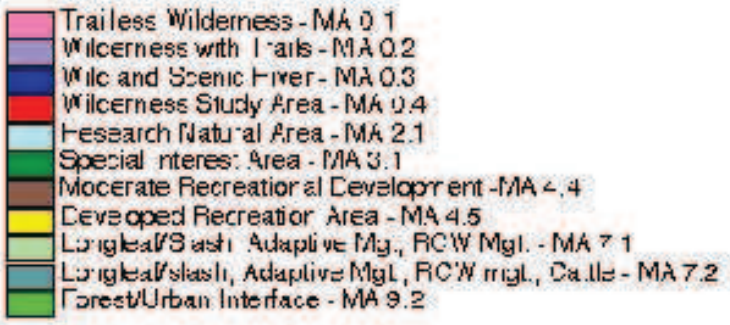
Interim Management Area Direction

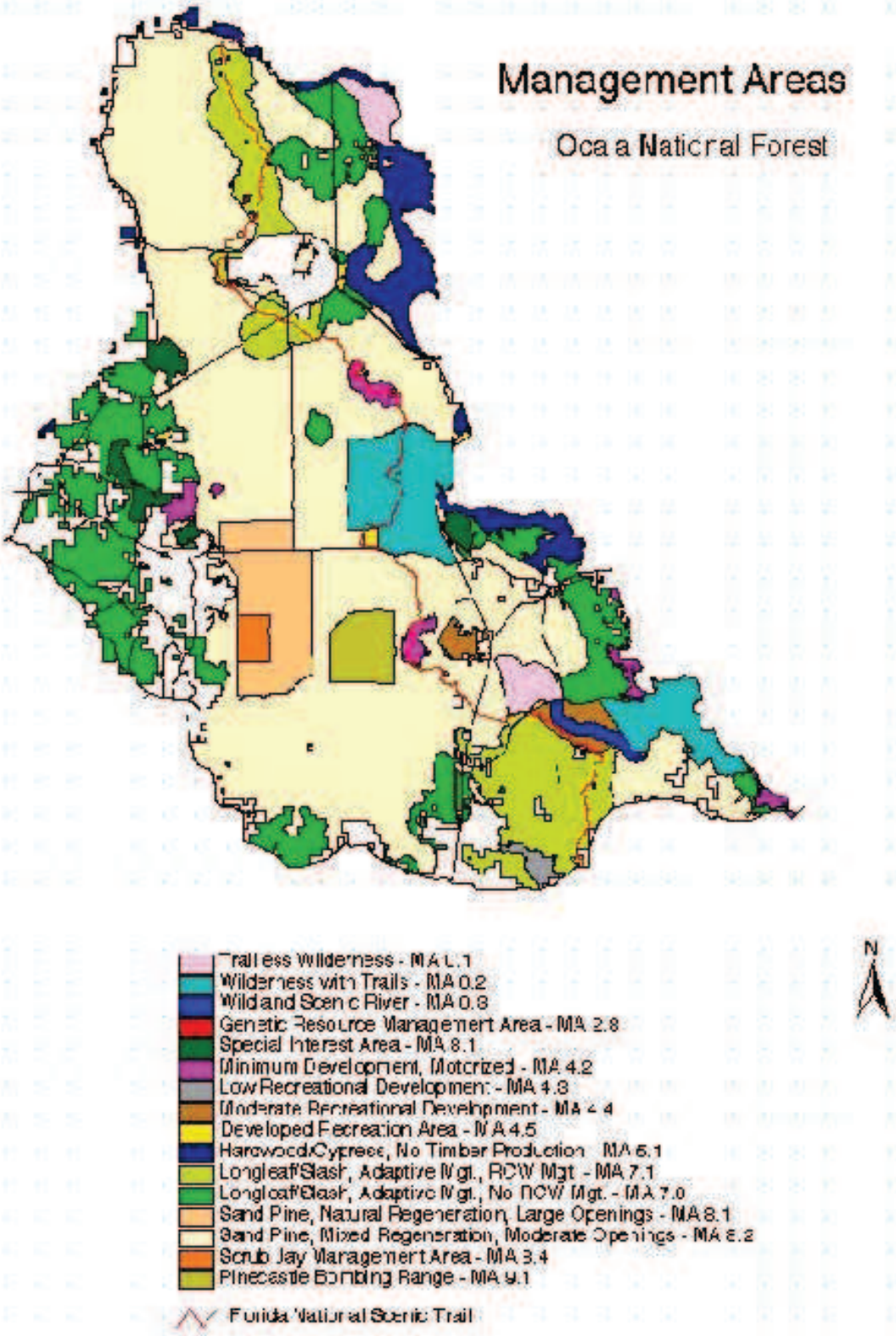
Allocation of some management areas depends on decisions by others—such as Congress, the President of the United States, and the Chief of the Forest Service. These areas include research natural areas, wilderness, wilderness study areas (WSAs), and wild and scenic rivers. Clear Lake WSA is recommended for wilderness, and Natural Area WSA is recommended to be released as a study area. Until a final decision, Clear Lake and Natural Area will be managed as wilderness study areas (MA 0.4), and the candidate wild and scenic river corridors will be managed as part of the appropriate adjacent management area. In all cases, no activities will occur that could reduce the area's value as wilderness, wilderness study area, or wild and scenic river.

This chapter displays management area maps for each forest, followed by the goals, desired future conditions, standards, and guidelines for each management area.

Management Areas
Apalachicola National Forest

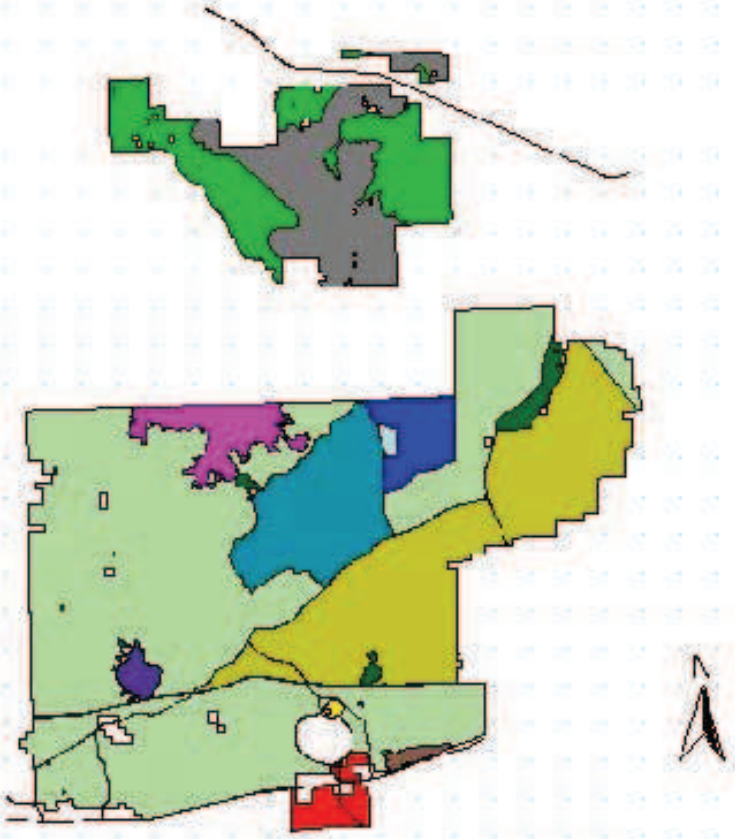





Management Areas
Ocala National Forest
Trailless Wilderness - MA 1.1
Wilderness with Trails - MA 0.2
Wild and Scenic River - MA 0.3
Genetic Resource Management Area - MA 2.8
Special Interest Area - MA 8.1
Minimum Development, Motorized - MA 4.2
Low Recreational Development - MA 4.3
Moderate Recreational Development - MA 4.4
Developed Recreation Area - MA 4.5
Hardwood/Cypress, No Timber Production - MA 6.1
Longleaf/Slash, Adaptive Mgt., ROW Mgt - MA 7.1
Longleaf/Slash, Adaptive Mgt., No ROW Mgt. - MA 7.0
Sand Pine, Natural Regeneration, Large Openings - MA 8.1
Sand Pine, Mixed Regeneration, Moderate Openings - MA 8.2
Scrub Jay Management Area - MA 3.4
Pinecastle Bombing Range - MA 9.1
Florida National Scenic Trail
N

Management Areas

Osceola National Forest



Wilderness with Trails - MA 0.2
Wilderness Study Area - MA 0.4
Remote Wetland - MA 1.1
Research Natural Area - MA 2.1
Experimental Forest - MA 2.2
Special Interest Area - MA 3.1
Minimum Development, Nonmotorized - MA 4.1
Minimum Development, Motorized - MA 4.2
Moderate Recreational Development - MA 4.4
Developed Recreation Area - MA 4.5
Longleaf/Slash, Adaptive Mgt., RCW Mgt. - MA 7.1
Longleaf/Slash, Adaptive Mgt., RCW Mgt., Cattle - MA 7.2
Longleaf/Slash, Adaptive Mgt., No RCW Mgt. - MA 7.3

0.0 Congressionally Designated Lands

These areas include wilderness, wild and scenic river corridors, and wilderness study areas.

Management Area 0.1
Trailless Wilderness

Apalachicola NF	1,023	acres in LTA 3
	682	acres in LTA 4
	6,385	acres in LTA 5
	8,090	**total acres**
Ocala NF	188	acres in LTA 1
	5,787	acres in LTA 6
	5,975	**total acres**

Visual Quality Objective (VQO) = 100% Preservation
Recreation Opportunity Spectrum (ROS) = 100% Primitive
All acres unsuitable for timber production

0.1-Goal

To provide an essentially unmodified environment where native species respond to natural forces to which they are adapted and where human influences have minimal impact. To provide the opportunity for humans to experience solitude, closeness with nature, and self-reliance on wildland skills.

0.1-Desired Future Condition

Wilderness areas show little evidence of human disturbance. Vegetation is shaped by natural processes—such as floods, storms, insects, diseases, and fires. Prescribed fire helps replace the natural fires interrupted by human activity outside the area's boundaries. Barring natural disturbances, these forests are old. Blackened tree trunks are common in

the pine flatwoods and upland pine forests, where low-intensity fires are frequent. Plowed firelines to stop wildfires will be only used under the most extreme circumstances; and they will be rehabilitated. Snags and downed wood are present throughout the area. Wildlife species here enjoy little human disturbance with large areas of uninterrupted habitat, including mature forest environments. Water, soil, and air are in near pristine condition. Rivers, streams, and cross-country travel provide the only access into these areas. There are no roads or trails. Visitors may be nature enthusiasts, hunters, or canoeists. They are usually isolated from the sights and sounds of human activity, and few, if any, other people are encountered. There are no facilities. Motorized equipment and motorized or mechanical vehicles are never encountered, except in cases of extreme emergency. Interpretive displays may be found at off-site locations. The area provides large-sized (greater than 2,500 acres) and mid-sized (100-2,499 acres) patches of old growth. About 35 percent of the area would be designated as old growth in the cypress/tupelo swamp and hardwood wetland communities.

0.1-Standards and Guidelines

Access

0.1-1—Prohibit motorized equipment and motorized or mechanical vehicles, except as allowed in FSM 2326.1.

Fire

0.1-2—Permit use of aerial ignition for prescribed fire and aerial suppression of wildfire over the area. Do not permit aircraft to land, except in cases of extreme emergency.

0.1-3—Construct firelines with hand tools by scraping a line of variable width down to mineral soil. Hose lays, foam, and wetting agents may be used to control fire.

0.1-4—Only allow exceptions to the restrictions on the use of motorized equipment and motorized or mechanical vehicles in cases of extreme emergency during wildfire suppression. Exceptions can be allowed by District Ranger, except tractor-plow use requires Regional Forester approval.

0.1-5—Scout area to be burned by air when aerial ignition for prescribed fire is planned in order to provide for public safety.

0.1-6—Use minimal impact suppression techniques on all wildfires, when possible.

Infrastructure

0.1-7—Revegetate roads and remove buildings and structures. If buildings or structures are 50 years or older, follow guidelines under ``Heritage Resources."

Insects and Diseases

0.1-8—Control insect or disease outbreaks only to prevent unacceptable damage to resources on adjacent land or to protect threatened or endangered species. Aerial detection may be used to locate these infestations. Permitted control measures may

be found in the *Record of Decision, Final Environmental Impact Statement for the Suppression of the Southern Pine Beetle, Southern Region* (FEIS SPB R8).

Law Enforcement/Search and Rescue

0.1-9—Only allow exceptions to the restrictions on the use of motorized equipment and motorized or mechanical vehicles in cases of extreme emergency (FSM 2326.1).

0.1-10—Do not permit aircraft to land, except in cases of life-threatening emergency.

Minerals

0.1-11—Legislatively withdrawn or unavailable for mineral lease.

Range

0.1-12—Prohibit range allotments.

Recreation

0.1-13—Permit dispersed camping in undesignated sites and prohibit recreational development—no trails, facilities, camping areas, or interpretive structures.

Vegetation

0.1-14—Prohibit harvesting of special forest products and salvaging of dead stands.

0.1-15—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

Wildlife and Fish

0.1-16—Prohibit cultivated wildlife openings and artificial structures for non-PETS (proposed, endangered, threatened, or sensitive) species.

Management Area 0.2
Wilderness with Trails

Apalachicola NF	23,774	acres in LTA 4
	838	acres in LTA 5
	24,612	**total acres**
Ocala NF	8,759	acres in LTA 1
	4,015	acres in LTA 2
	437	acres in LTA 4
	9,011	acres in LTA 6
	22,222	**total acres**
Osceola NF	19	acres in LTA 3
	7,222	acres in LTA 4
	6,419	acres in LTA 5
	13,660	**total acres**

VQO = 100% Preservation
ROS = 100% Primitive
All acres unsuitable for timber production

0.2-Goal

To provide an essentially unmodified natural environment where native species respond to natural forces to which they are adapted and where human influences have minimal impact. To provide the opportunity for humans to experience solitude, closeness to nature, and primitive recreational activity. Clear Lake WSA is recommended for wilderness and will be MA 0.2 upon congressional approval.

0.2-Desired Future Condition

Wilderness areas show little evidence of human disturbance. Vegetation is shaped by natural processes—such as floods, storms, insects, diseases, and fires. Prescribed fire helps replace the natural fires that are interrupted by human activity outside the area's boundaries. Barring natural disturbances, these forests are old. Blackened tree trunks are common in the pine flatwoods and upland pine forests, where low-intensity fires are frequent. Scrub areas will show less frequent signs of fire. However, fires in these areas will be intense and could be relatively large in size. Fires in scrub habitat will set the vegetation back to an early successional stage which will be inhabited by scrub-jays. Plowed firelines to stop wildfires will be only used under the most extreme circumstances. They will be rehabilitated. Snags and downed wood are present throughout the area. Wildlife species here enjoy little human disturbance with large areas of uninterrupted habitat, including mature forest environments. Soil, water, and air are in near pristine condition. Rivers, streams, and foot or horse trails provide access. Visitors may be nature enthusiasts, hunters, canoeists, hikers, or horseback riders. They are isolated from the sights and sounds of human activity, and only occasionally are other people encountered while passing through the area. Facilities encountered are marked trails, primitive boat access sites, and fire-ring camping areas. Motorized equipment and motorized or mechanical vehicles are never encountered, except in case of extreme emergency. Instrepretive displays about the area may be found at off-site locations. The area provides large-sized (greater than 2,500 acres) and mid-sized (100-2,499 acres) patches of old growth. Approximately 40 percent of the area is designated as old growth in the upland longleaf pine, southern wet pine/woodland, cypress/tupelo swamp, hardwood wetland, and dry and xeric oak community types.

0.2-Standards and Guidelines

Access

0.2-1—Prohibit motorized equipment and motorized or mechanical vehicles, except as allowed in FSM 2326.1.

Fire

0.2-2—Permit use of aerial ignition for prescribed fire and aerial suppression of wildfire over the area. Do not permit aircraft to land, except in cases of extreme emergency.

0.2-3—Construct firelines with hand tools by scraping a line of variable width down to mineral soil. Hose lays, foam, and wetting agents may be used to control fire.

0.2-4—Only allow exceptions to the restrictions on the use of motorized equipment and motorized or mechanical vehicles in cases of extreme emergency during wildfire suppression. Exceptions can be allowed by District Ranger. Tractor-plow use requires Regional Forester approval.

0.2-5—Scout area to be burned by air when aerial ignition for prescribed fire is planned to provide for public safety.

0.2-6—Use minimal impact suppression techniques on all wildfires, when possible.

Infrastructure

0.2-7—Revegetate roads and remove buildings and structures. If buildings and structures are 50 years or older, follow guidelines under ``Heritage Resources."

Insects and Diseases

0.2-8—Control insect or disease outbreaks, as necessary, to prevent unacceptable damage to resources on adjacent land or to protect threatened or endangered species. Aerial detection may be used to locate these infestations. Permitted control measures may be found in the FEIS SPB R8.

Law Enforcement/Search and Rescue

0.2-9—Only allow exceptions to the restrictions on the use of motorized equipment and motorized or mechanical vehicles in cases of extreme emergency (FSM 2326.1).

0.2-10—Do not permit aircraft to land, except in cases of life-threatening emergency.

Minerals

0.2-11—Legislatively withdrawn or unavailable for mineral lease.

Range

0.2-12—Prohibit range allotments.

Recreation

0.2-13—Permit only hiking, horse, and canoe trails. Do not develop trailheads.

0.2-14—Permit only primitive boat access sites.

0.2-15—Permit camping areas at development level 1 only. Permit dispersed camping in undesignated sites.

0.2-16—Do not allow interpretive facilities.

Vegetation

0.2-17—Prohibit harvesting of special forest products and salvaging of dead stands.

0.2-18—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

Wildlife and Fish

0.2-19—Prohibit cultivated wildlife openings and artificial structures for non-PETS species.

Management Area 0.3
Wild and Scenic River

Apalachicola NF	2,277	acres not inventoried
	5,060	acres in LTA 3
	5,222	acres in LTA 4
	5,970	acres in LTA 5
	18,529	**total acres**
Ocala NF	162	acres in LTA 1
	2,158	acres in LTA 6
	2,320	**total acres**

VQO = Scenic Segment - 100% Retention
VQO = Recreational Segments - 75% Retention & 25% Partial Retention
ROS = Semiprimitive - 100% Motorized
All acres unsuitable for timber production on the Ocala NF
4,945 acres suitable for timber production on the Apalachicola NF

Table 4.1

Wild and Scenic River Segment Classification and Length

	County	Miles	Classification
Alexander Springs			
Segment A	Lake	7	Scenic
Segment B	Lake	3	Wild
Juniper Springs			
Segment A	Marion	7	Wild
Segment B	Marion	3	Scenic
New River			
Segment A	Liberty	7	Not Eligible
Segment B	Liberty	6	Scenic
Segment C	Liberty	10	Wild
Segment D	Franklin	29	Scenic
Ochlockonee River	Leon, Liberty, & Wakulla	59	Scenic
Sopchoppy River			
Headwaters	Wakulla	13.6	Scenic
Bradwell Bay	Wakulla	6.0	Wild
Monkey Creek	Wakulla	3.4	Scenic
Sopchoppy	Wakulla	19.1	Recreational
St. Marks	Wakulla	5.5	Scenic
TOTAL		**178.6**	

0.3-Goal

To provide an essentially unmodified natural environment along *wild* segments of wild and scenic rivers and a predominantly natural environment along *scenic* segments.

0.3-Desired Future Condition

This area consists of river corridors, so the predominant ecosystem is floodplain wetlands. Higher ridges with drier ecosystems—such as pine flatwoods, upland pine, and sand pine scrub—may be occasionally included in the half-mile-wide corridors. Adjacent to the river, the area rarely burns, though snags killed by lightning may occur. Evidence of wildfires and prescribed fires on higher ridges in the corridor may be seen. Along wild segments, essentially there is no evidence of recent human activity. Along scenic segments, the shoreline is mostly undeveloped, but it is accessible in places by roads or trails. The area provides mid-sized patches of old growth (100-2,499 acres). Approximately 20 percent of the area is designated as old growth in the river floodplain hardwood, hardwood wetland, and dry and dry mesic oak/pine communities.

Water and air meet State and Federal quality standards. Soil erosion occurs naturally along river banks. Visitors use the river primarily for recreation activities, such as boating and fishing. In wild segments, they are often isolated from the sights and sounds of other human activity and encounter few other users. In scenic segments, they are more likely to encounter other users, including those walking or motoring to the shoreline. Boat access sites of all different levels of development may be encountered.

In wild segments, roads are not encountered. In scenic segments, roads are encountered occasionally. Most roads have native surfacing and conform in height to the surrounding ground. They are of a low standard and may be difficult to travel with a low-clearance vehicle. A few roads, however, may have sand-clay, limerock, or paved surfacing. They provide access to the river during most of the year.

0.3-Standards and Guidelines

Rivers in this management area are proposed as wild and scenic rivers and will be managed such that no activities will occur that could reduce the area's value as a wild and scenic river. Guidance is found in FSH 1909.12, *Land and Resource Management Planning Handbook*, Chapter 8.12, ``Interim Management of Study Rivers." Also in Chapter 8.2, ``Assessment of Study Rivers," are USDI-USDA Interagency Guidelines for wild rivers, scenic rivers, and recreational rivers.

General

0.3-1—Apply all restrictions associated with the underlying management area to the river corridor.

Infrastructure

0.3-2—Screen roads from the river.

Lands

0.3-3—Limit utilities, such as pipelines and power lines, to short reaches of the river corridor. Locate and construct utilities to lessen their negative effects on the scenic, recreational, fish, wildlife, and other values of the river corridor. Prohibit new utility corridors in wild segments. Use existing corridors to meet valid public interests.

Minerals

0.3-4—Conduct mineral development in a manner that reduces surface disturbance, sedimentation, and visual impairment.

Range

0.3-5—Screen range structural improvements from the river.

Recreation

0.3-6—Prohibit rifle ranges.

0.3-7—Screen recreational structures from the river, or make them modest and unobtrusive.

Vegetation

0.3-8—Scenic segments along the Sopchoppy River and New River are suitable for timber production. All wild segments and remaining scenic segments are unsuitable for timber production.

0.3-9—In all vegetation management activities, maintain the VQO or scenery management standard of the river.

Wildlife and Fish

0.3-10—In all wildlife and fish management activities, maintain VQO or scenery management standard of the river.

Management Area 0.4
Wilderness Study Area

Apalachicola NF	299	acres in LTA 1
	4,869	acres in LTA 4
	467	acres in LTA 5
	5,635	**total acres**
Osceola NF	1,185	acres in LTA 4
	3,211	acres in LTA 5
	4,396	**total acres**

VQO = 90% Preservation & 10% Retention
ROS = Semiprimitive - 100% Nonmotorized
All acres unsuitable for timber production

0.4-Goal

These lands are wilderness study areas (Clear Lake on the Apalachicola NF and Natural Area on the Osceola NF), managed to protect their wilderness character until a final determination of use is made by Congress. Clear Lake is recommended for wilderness, and Natural Area is recommended to be released as a wilderness study area.

0.4-Desired Future Condition

Water, soil, and air are in near pristine condition. Old roads, hiking trails, and horse trails provide access into the area. Visitors may be nature enthusiasts, hikers, horseback riders, or hunters. They are isolated from the sights and sounds of human activity, and only occasionally are other people encountered while passing through the area. The only facilities might be marked trails, old logging roads, primitive boat access sites, and fire-ring camping areas. Motorized vehicles may be encountered. Displays, presentations, and publications about the area may be found at off-site locations. The area provides mid-sized (100-2,499 acres) patches of old growth. Approximately 25 percent of the area is designated old growth in the upland longleaf pine community.

0.4-Standards and Guidelines

Fire

0.4-1—Construct firelines with hand tools by scraping a line of variable width down to mineral soil. Hose lays, foam, and wetting agents may be used to control the fire.

0.4-2—Ground-based mechanical equipment must stay on open, numbered roads and unmarked travelways.

0.4-3—Scout area to be burned by air when aerial ignition for prescribed fire is planned to provide for public safety.

Infrastructure

0.4-4—Maintain existing infrastructure at its current level. Do not construct new roads or buildings.

Minerals

0.4-5—Legislatively withdrawn or unavailable for mineral lease.

Range

0.4-6—Prohibit range allotments.

Recreation

0.4-7—Until Congress acts to determine the area's classification, do not construct new trails or trailheads.

0.4-8—Only permit camping areas at development level 1.

0.4-9—Do not permit interpretive facilities and recreational facilities, except primitive boat access sites.

Vegetation

0.4-10—Prohibit harvesting of special forest products and salvaging of dead stands.

0.4-11—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

0.4-12—If a restoration project involves the replacement of an off-site tree species, do not create temporary openings larger than 25 acres.

Wildlife and Fish

0.4-13—Prohibit cultivated wildlife openings and artificial structures for non-PETS species.

1.0 Remote Areas

These areas are predominantly remote wetlands.

Management Area 1.1
Remote Wetland

Osceola NF	17,116 acres	all acres not inventoried

VQO = 90% Preservation & 10% Retention
ROS = Semiprimitive - 50% Motorized & 50% Nonmotorized
All acres unsuitable for timber production

1.1-Goal

To provide conditions suitable for the recovery of proposed, endangered, threatened, and sensitive species that require remote undisturbed habitat within large, predominantly wetland areas.

1.1-Desired Future Condition

Ecosystems are found in their natural condition with little evidence of human disturbance. The area provides large-sized (greater than 2,500 acres) and mid-sized (100-2,499 acres) patches of old growth. Approximately 10 percent of the area is designated as old growth in the cypress/tupelo swamp community. The occasional natural disturbances—including storms, insects, diseases, and fires that sweep across the area during prolonged droughts—shape the vegetation patterns. The usually wet conditions make fires rare, but snags and lightning-struck trees are visible. Infrequently the landscape may be interrupted by narrow road corridors.

The area is a still-water swamp dominated by fetterbush and greenbriers. Scattered bay and pond pine trees can be seen. Small areas of open-water glades are scattered throughout. In these areas, there are plants such as maidencane and bloodroot. Glades can be formed by the action of fire during droughts. Fire burns into the peat, leaving an empty depression. When water returns, it becomes a site of shallow, open water and emergent herbs invade it. Over many years the organic layer builds up again and the site becomes dry enough for shrubs, vines, and occasionally a tree. The density of shrubs compared to glades depends on the length of time since the last fire.

Islands, representing slight changes in elevation, are scattered throughout. They support sparse pond and slash pine overstories. Understory is closed and dense, with mixtures of small trees and shrubs—including bay species, blueberry, gallberry, and palmetto.

Wildlife characteristics of the area are those that thrive in large remote wetlands.

Water, soil, and air are in near pristine condition. Roads and trails are very few and maintained only at a low level. Since understory can be hard to penetrate, travel can be difficult. Visitors are isolated from the sights and sounds of human activity and encounter few, if any, other people. There are no facilities. Interpretive material (displays and publications) about the area may be found at off-site locations.

Roads are seldom seen. They may have water-filled ditches and lie above the surrounding ground. Low-water drainage points (bay crossing, streams, etc.) do not have any

improvements. These roads are of very low standard and are very rough and irregular. Travel with low-clearance vehicles is difficult.

1.1-Standards and Guidelines

Range

1.1-1—Prohibit range allotments.

Recreation

1.1-2—Permit only minor trailheads (recreational development level 2).

1.1-3—Do not allow recreational facilities, except primitive boat access sites.

1.1-4—Permit dispersed camping in undesignated sites, but do not develop camping areas.

1.1-5—Prohibit interpretive facilities.

Vegetation

1.1-6—Prohibit harvesting of special forest products and salvaging of dead stands.

1.1-7—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

Wildlife and Fish

1.1-8—Do not cultivate wildlife openings.

2.0 Research Areas

These areas include research natural areas, experimental forests, and genetic resource management areas.

Management Area 2.1
Research Natural Area

Apalachicola NF	489	acres in LTA 2
	489	**total acres**
Osceola NF	358	acres in LTA 4
	23	acres in LTA 5
	381	**total acres**

VQO = 90% Preservation & 10% Retention
ROS = Semiprimitive - 75% Motorized & 25% Nonmotorized
All acres unsuitable for timber production

2.1-Goal

To preserve areas that typify important botanic, aquatic, geologic, or similar natural situations that have special or unique characteristics of scientific interest and to help form a national network of ecological areas for research, education, and maintenance of biological diversity.

2.1-Desired Future Condition

In these areas, ecosystems are shaped by natural forces and, in some cases, by human management intended to mimic natural forces altered by human activity outside the area's boundary. These areas provide mid-sized (100-2,499 acres) patches of old growth. Approximately 25 percent of the area is designated old growth in the cypress/tupelo swamp community. Species vary by the type of ecosystem that is present. Water, soil, and air are in near pristine condition. Nearby roads may range from very rough to paved. At one extreme, access may require cross-country travel; at the other, a well-developed interpretive trail may provide access. Visitors may be nature enthusiasts, researchers, or hunters. The likelihood of encountering other people varies with the site. There may be interpretive displays.

Roads provide access to the area but are not within the boundaries. Roads are placed so they do not degrade the unique features of the area. They are maintained at a level that does not lead to overuse. Designated areas include:

1. Natural Area (Osceola NF). This area (about 400 acres) is a stand of cypress mixed with black gum, red maple, and slash pine. Cypress are unusually old, ranging from 3 to 4 feet in diameter. This area is designated a research natural area.

2. Savannah (Apalachicola NF). This is a wet prairie with a dense ground cover of grasses and herbs. It is typically wet for 2 to 3 months of the year and naturally burns every 2 to 4 years. The species diversity of wetland herbs and grasses is very high.

2.1-Standards and Guidelines

Access

2.1-1—Restrict motorized vehicles to open, numbered roads (forest development roads) except for administrative use, and activities under contract or permit.

Fire

2.1-2—Construct firelines with hand tools by scraping a line of variable width down to mineral soil. Hose lays, foam, and wetting agents may be used to control fire. Only use plowlines in cases of extreme emergency.

2.1-3—Ground-based mechanical equipment must stay on open, numbered roads and marked travelways, except in cases of extreme emergency.

Recreation

2.1-4—Do not permit recreational facilities.

2.1-5—Prohibit camping.

Vegetation

2.1-6—Prohibit harvesting of special forest products and salvaging of dead stands.

2.1-7—The area is classified as unsuitable for timber production.

Wildlife and Fish

2.1-8—Prohibit cultivated wildlife openings and artificial structures.

Management Area 2.2
Experimental Forest

Osceola NF	293	acres in LTA 1
	2,509	acres in LTA 5
	2,802	**total acres**

VQO = 25% Partial Retention, 50% Modification, & 25% Maximum Modification
ROS = 100% Rural
All acres unsuitable for timber production

2.2-Goal

To provide lands for conducting research to achieve the goals and objectives of the Southern Research Station.

2.2-Desired Future Condition

In this area, alteration of the landscape is readily apparent and occurs primarily through human intervention. Vegetation patterns are the result of timber harvests that create many

openings (varying from small to large) in the forest canopy. Once in a while the visitor sees the effects of natural disturbances (fires, storms, insects, and diseases). Snags and lightning-struck trees are seen occasionally. Most of the tree trunks are blackened to various degrees. Evidence of firelines around previous fires is encountered at a moderate rate. In addition, the landscape may be interrupted by narrow road corridors. Remnants of roads leading from permanent roads to openings can be seen. Evidence of research activities—in the form of signs, stakes, tree tags, and paint on trees—is often seen.

The ecosystem is primarily mesic flatwoods, with strand swamp inclusions. In flatwoods, dominant trees are a mix of longleaf and slash pine, and saw palmetto dominates the understory. The appearance of the pine forest may vary from somewhat open and parklike in the oldest stands to closed and dense in the younger stands. From one location to the next, trees may vary in size. In some stands, trees are uniformly spaced in rows, but other stands may show random distribution of the trees. Green stumps may be found throughout the forest.

Wildlife species are those that tolerate a certain amount of human disturbance and live in predominantly longleaf pine forests.

The quality of water, soil, and air is high. Roads are common, and some are easily passable. Visitors are not isolated from the sights and sounds of human activity. They may encounter other people. There are few trails and no recreational facilities, though there may be interpretive displays.

The low-standard roads have native surfacing and conform in height to the surrounding ground. Some low-drainage points along these roads (bay crossing, streams, etc.) have low-water rock crossings. Travel with low-clearance vehicles is difficult. Some higher-standard roads have sand-clay surfacing, are higher than the surrounding ground, and have ditches. Drainage structures consist of culverts. Roads may not be stable during bad weather conditions. A few roads have paved surfaces and are stable and smooth.

2.2-Standards and Guidelines

Range

2.2-1—Prohibit range allotments.

Recreation

2.2-2—Permit only minor trailheads.

2.2-3—Do not develop recreational facilities.

Vegetation

2.2-4—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

Management Area 2.3
Genetic Resource Management Area

Ocala NF	81 acres in LTA 1
	81 total acres

VQO = 100% Modification
ROS = not applicable
All acres unsuitable for timber production

2.3-Goal

To provide lands that promote genetic conservation and propagation of sand pine and as a basis for genetic conservation of threatened, endangered, and sensitive plant species.

2.3-Desired Future Condition

In this area, alteration of the landscape is readily apparent and occurs primarily through human intervention. Rows of vigorous sand pine trees are found with an herbaceous understory. Once in a while the visitor sees the effects of natural disturbances (fires, storms, insects, and diseases). The orchard is interrupted by a few narrow road corridors. Evidence of research activities—signs, stakes, tree tags, and paint on trees—may be seen. Research and equipment storage buildings are on site. There are offspring from a variety of threatened, endangered, and sensitive species.

Wildlife species are those that tolerate some human activity and primarily inhabit sand pine scrub or upland pine ecosystems.

The quality of water, soil, and air is high. An improved road provides access to buildings, and unimproved roads provide access to the sand pine orchards. Visitors are not isolated from the sights and sounds of human activity. They may encounter other people. There are no trails or recreational facilities, though there may be interpretive displays.

2.3-Standards and Guidelines

Access

2.3-1—Restrict motorized vehicles to open, numbered roads (forest development roads), except for administrative use and activities under contract or permit.

Recreation

2.3-2—Close area to public use, but interpretive tours may be available.

Vegetation

2.3-3—Prohibit harvesting of special forest products.

2.3-4—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

3.0 Special Interest Area

These areas have special aquatic, biotic, geologic, historic, paleontologic, or scenic values.

Management Area 3.1
Special Interest Area

Apalachicola NF	1,365	acres not inventoried
	634	acres in LTA 1
	4397	acres in LTA 2
	11	acres in LTA 3
	210	acres in LTA 4
	1,042	acres in LTA 5
	7,659	**total acres**
Ocala NF	150	acres in LTA 1
	427	acres in LTA 2
	3,677	acres in LTA 5
	1,178	acres in LTA 6
	5,432	**total acres**
Osceola NF	1,550	acres in LTA 2
	189	acres in LTA 3
	322	acres in LTA 5
	2,061	**total acres**

VQO = 25% Preservation, 65% Retention, & 10% Partial Retention
ROS = Semiprimitive - 65% Motorized & 25% Nonmotorized, & 10% Roaded Natural
All acres unsuitable for timber production

3.1-Goal

To maintain a predominantly natural environment in which areas with special aquatic, biotic, geologic, historic, paleontologic, or scenic values can be preserved and interpreted for public enjoyment, study, and use.

3.1-Desired Future Condition

In all areas, except historic sites, ecosystems are in natural conditions. Natural forces predominate and may have been supplemented by management activities intended to replace interrupted natural forces. The area provides mid-sized (100-2,499 acres) patches of old growth. Approximately 30 percent of the area is designated old growth in the upland longleaf pine, cypress/tupelo swamp, river floodplain hardwood, and hardwood wetland communities. Physical site characteristics and vegetative features make the site unique. Wildlife species vary accordingly. Water, soil, and air are in near pristine condition. There may be heritage resource sites. These may be degraded by natural forces—such as storms, fires, and root growth—but management activities, such as logging and road construction, have little affect. Actions are taken to reduce potential for looting and vandalism.

Some areas do not have access roads. In other areas, access roads range from unimproved dirt to paved. These roads are designed and maintained to avoid degradation of the unique features of the area. There may be nonmotorized loop trails with both interpretive facilities and facilities for comfort and safety. In areas developed for interpretation, visitors may encounter other people. At the other extreme, undeveloped areas may be remote and may lack facilities.

3.1-Standards and Guidelines

General

3.1-1—Restrict management activities to those consistent with the preservation of special attributes for which the area was established.

Access

3.1-2—Restrict motorized vehicles to open, numbered roads (forest development roads) and designated trails.

Range

3.1-3—If a special interest area exists within a range allotment, do not permit structural and nonstructural range improvements within the special interest area.

Recreation

3.1-4—Permit only hiking and horse trails and major and minor trailheads unless prohibited in specific areas.

3.1-5—Permit only picnic areas and primitive boat access facilities unless prohibited in specific areas.

3.1-6—Prohibit camping unless allowed in specific areas.

Vegetation

3.1-7—Prohibit harvesting of special forest products.

3.1-8—Classified as unsuitable for timber production. Trees may be cut for other resource objectives.

3.1-9—If a restoration project involves the replacement of an off-site tree species, to maintain the visual quality, do not create temporary openings larger than 10 acres.

Wildlife and Fish

3.1-10—Do not cultivate wildlife openings.

3.1-Standards Applied to Each Area

1. **Savannahs** (Apalachicola NF). These wet prairies range from 10 to 500 acres. They are home to an unusually diverse array of herbs and grasses that can tolerate being under water several months every year and being burned every 2 to 4 years.

   Recreation

   3.1-11—Prohibit picnic facilities.

   Vegetation

   3.1-12—Prohibit salvaging of dead stands.

2. **Bradwell Tract** (Apalachicola NF). This 1,500-acre area of upland pine borders the Ochlockonee River. In the last century, it was managed as a private game farm. The area is scenic and has some sites and buildings of historic interest.

   Recreation

   3.1-13—Permit shoreline improvement facilities.

   Wildlife and Fish

   3.1-14—Permit cultivated wildlife openings.

3. **Lake Bradford Tract** (Apalachicola NF). This area is managed for education, interpretation, and recreation in partnership with the Tallahassee Museum of History and Natural Science.

4. **Rocky Bluff** (Apalachicola NF). Located on a bluff overlooking the Ochlockonee River, this 225-acre area has some large specimens of bottomland hardwood trees, as well as dogwoods and redbuds.

   Recreation

   3.1-15—Permit primitive camping and nonmotorized trails.

Vegetation

3.1-16—Prohibit salvaging of dead stands.

5. **Morrison Hammock** (Apalachicola NF). This 300-acre area near the banks of the Sopchoppy River is a well-developed hardwood hammock with specimen trees of spruce pine and loblolly pine. The area also contains spring boils.

   Recreation

   3.1-17—Permit primitive camping and nonmotorized trails.

6. **River Sinks** (Apalachicola NF). This 350-acre parcel encompasses a good example of a sinkhole in a karst plain. The lack of human activity in the immediate vicinity has kept the sinkhole in near-natural condition.

   Recreation

   3.1-18—Permit primitive camping.

7. **Leon Sinks** (Apalachicola NF). Several outstanding limestone sinks and many other smaller ones make this 640-acre area unique. The sinks vary. One is sheer-walled with a beautiful pool below. Another is shallow with a clear pool. A third one is dry and has several large magnolias inside.

   Recreation

   3.1-19—Permit shoreline access improvements.

8. **Middle Prong of the St. Mary's River** (Osceola NF). This corridor along the St. Mary's River, an Outstanding Florida Water, is a well-developed example of a creek swamp, with large bays, black gums, loblolly pine, and red maples. Dogwoods and azaleas provide spring bloom along this meandering scenic river.

   Recreation

   3.1-20—Permit primitive camping.

9. **Drew Grade Oak Hammock** (Osceola NF). This 350-acre area encompasses a scenic mature live oak grove.

   Recreation

   3.1-21—Prohibit picnic facilities.

   3.1-22—Permit primitive camping.

10. **Fanny Bay** (Osceola NF). This cypress swamp, about 350 acres, includes individual cypress trees 3 feet or more in diameter. Located adjacent to a rest stop on Interstate 10, it offers a good opportunity for interpretation and education.

    Recreation

    3.1-23—Prohibit picnic facilities.

11. **Mud Lake** (Ocala NF). This shallow, 500-acre lake has an unusual set of conditions that leads to a thick ooze developing on the bottom. This kind of ooze is the forerunner of oil-rich shale.

    Vegetation

    3.1-24—Prohibit salvaging of dead stands.

12. **Lake Charles and Redwater Lake** (Ocala NF). These two scenic lakes are surrounded by mature hardwood bottomlands and swamps with large trees.

    Recreation

    3.1-25—Permit primitive camping, rustic boat access sites, and nonmotorized trails.

13. **North Prairie** (Ocala NF). This is a wetland in an otherwise dry scrub that is relatively undisturbed.

    Recreation

    3.1-26—Permit primitive camping and nonmotorized trails.

14. **Davenport Landing** (Ocala NF). This is a prehistoric village and historic riverboat landing site.

    Recreation

    3.1-27—Permit primitive camping and nonmotorized trails.

15. **Mormon Branch** (Ocala NF). This is a subtropical swamp with a population of impressive Atlantic white cedars.

    Recreation

    3.1-28—Permit multiple-use trails.

    Vegetation

    3.1-29—Permit salvaging of dead stands if evaluation indicates no adverse effects on Atlantic white cedar or on threatened and endangered species.

16. **Bowers Bluff** (Ocala NF). This mature hardwood hammock overlooks the St. Johns River.

17. **Disappearing Creek** (Ocala NF). This is a sinkhole with a scenic, mature hardwood hammock.

    Recreation

    3.1-30—Permit camping areas up to development levels 1 and 2.

4.0 Recreation Emphasis Areas

These areas are managed with an emphasis on varying degrees of recreational opportunities.

Management Area 4.1
Minimum Development, Nonmotorized

Osceola NF	1,089	acres in LTA 4
	192	acres in LTA 5
	1,281	**total acres**

VQO = 50% Preservation & 50% Retention
ROS = 100% Semiprimitive, Nonmotorized
All acres unsuitable for timber production

4.1-Goal

To provide a predominantly natural environment that gives a strong feeling of remoteness and in which there are opportunities to practice wildland skills and feel self-reliant. To provide opportunities for nonmotorized recreation.

4.1-Desired Future Condition

The most common vegetative community in this area is the basin swamp. The landscape is predominantly natural, with little remaining evidence of historical human disturbance.

Vegetation patterns are shaped by natural processes—such as floods, fires (including prescribed fire), storms, insects, and diseases. Little active timber management occurs here. Snags and downed wood are common. There may be evidence of fire, but since the area is predominantly wetland, fires are not common. Barring natural disturbance, the forest is old. The area provides mid-sized patches of old growth (100-2,499 acres). Approximately 90 percent of the area is designated as old growth in the cypress/tupelo swamp community. The area is interrupted occasionally by a narrow road or a trail corridor, and facilities such as primitive camping areas may be encountered.

The quality of soil, water, and air is high. Nonmotorized trails provide the only public access into the area. People using the area may be canoeing, hiking, horseback riding, or hunting. Visitors are usually isolated from the sights and sounds of human activity. Few, if any, other people are encountered. A few level 1 camping areas and a few interpretive signs may occur.

A few roads may exist in the area, but vehicles seen may be for administrative purposes. Most roads have native surfacing and are level with the surrounding ground. In low areas, roads may have ditches or be above the surrounding ground. A few low-drainage points (bay crossing, streams, etc.) have low-water rock crossings.

4.1-Standards and Guidelines

Access

4.1-1—Restrict motorized vehicle use to administrative vehicles and activities related to contracts or permits.

Fire

4.1-2—Use minimal impact suppression techniques on all wildfires, when possible.

Infrastructure

4.1-3—Do not construct roads. Maintain existing roads that are needed for management of the area at traffic service level D.

Range

4.1-4—Prohibit range allotments.

Recreation

4.1-5—Develop trails for nonmotorized use only. Do not develop trailheads.

4.1-6—Prohibit recreational facilities, except primitive boat access sites.

4.1-7—Only allow camping areas at development level 1.

Vegetation

4.1-8—Prohibit salvaging of dead stands.

4.1-9—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

4.1-10—If a restoration project involves the replacement of an off-site tree species, to maintain the visual quality, limit temporary openings to 10 acres.

Wildlife and Fish

4.1-11—Do not cultivate wildlife openings

Management Area 4.2
Minimum Development, Motorized

Ocala NF	239	acres in LTA 1
	2,571	acres in LTA 2
	980	acres in LTA 5
	1,782	acres in LTA 6
	5,572	**total acres**
Osceola NF	4,527	acres in LTA 3
	613	acres in LTA 5
	5,140	**total acres**

VQO = 25% Preservation & 75% Retention
ROS = 100% Semiprimitive, Motorized
All acres unsuitable for timber production

4.2-Goal

To provide a predominantly natural environment that gives the visitor a feeling of remoteness, where there are opportunities to practice wildland skills and achieve feelings of self-reliance. To provide opportunities for motorized recreation, where there are few roads.

4.2-Desired Future Condition

The landscape is predominantly natural with some evidence of human disturbance. Vegetation patterns are shaped by natural processes—such as floods, fires (including prescribed fire), storms, insects, and diseases. The area provides mid-sized (100-2,499 acres) patches of old growth. Approximately 30 percent of the area is designated old growth in the cypress/tupelo swamp and hardwood wetland communities. In addition, there are a few small openings in the forest where vegetation has been modified to enhance recreational pursuits—such as off-highway vehicle use, hunting, nature photography, and wildlife viewing. Occasionally, the landscape is interrupted by narrow road and trail corridors and small rustic facilities such as campsites.

The quality of soil, water, and air is high. Access is provided by a few unpaved roads, trails, and rivers and streams with a few primitive and rustic boat access sites. People using the area are usually there for recreation activities, both motorized and nonmotorized. At the few rustic facilities that exist, visitors may find level 1 camping areas, interpretive kiosks, and brochures.

On the roads that exist in the area, traffic may be occasionally encountered. Roads have native surfacing and conform in height to the surrounding ground. In low areas, roads may have ditches or be raised. A few low-drainage points (bay crossing, streams, etc.) have low-water rock crossings. Most roads are rough and irregular, and travel with low-clearance vehicles is challenging. Some old roads may be used as motorized-use trails.

4.2-Standards and Guidelines

Fire

4.2-1—Use minimum impact-suppression techniques on all wildfires, when possible.

Infrastructure

4.2-2—Allow traffic service level C or D roads.

Range

4.2-3—Prohibit range allotments.

Recreation

4.2-4—Allow only minor trailheads.

4.2-5—Prohibit recreational facilities, except shoreline improvements and primitive and rustic boat access sites.

4.2-6—Allow camping areas only at development level 1.

Vegetation

4.2-7—Prohibit salvaging of dead stands.

4.2-8—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

4.2-9—If a restoration project involves replacement of an off-site tree species, to maintain the visual quality, do not create temporary openings larger than 10 acres.

Wildlife and Fish

4.2-10—Do not cultivate wildlife openings.

Management Area 4.3
Low Recreational Development

Ocala NF	132	acres in LTA 1
	1,230	acres in LTA 6
	1,362	**total acres**

VQO = 25% Preservation & 75% Retention
ROS = 100% Roaded Natural
All acres unsuitable for timber production

4.3-Goal

To provide a largely unmodified natural environment with a low level of recreational development that may be experienced by people via motorized access into the area.

4.3-Desired Future Condition

Ecosystems are in largely unmodified conditions where natural forces predominate and evidence of human influence is muted. Natural processes—such as fires (including prescribed fire), storms, insects, and diseases—shape vegetation patterns. Roads are dense enough to modify the natural forest with frequent, artificial edges and corridors. In many of the areas, the forests have old trees.

Soil, water, and air quality are high. Heritage resource sites are likely to occur here. Roads are the primary access. The visitor may not become completely isolated from the sights and sounds of other people. Primitive and rustic boat access sites are present, as are trails. People using them may be driving for pleasure, hiking, horseback riding, riding motorized recreation vehicles, or hunting. Both motorized and nonmotorized camping occurs at level 1 and level 2 camping areas. Signing, safety, and sanitation facilities may be present, as well as displays, presentations, and publications.

Most roads have native surfacing and are the height to the surrounding ground. In low areas, roads may have ditches. Low-drainage points usually have low-water rock crossings. These roads are rough and irregular, making travel with low-clearance vehicles difficult. Other roads have a sand-clay surfacing, are higher than the surrounding ground, and have ditches. These roads are apt to have culverts or bridges at water crossings. Although roads are of fair standard, they may not be stable during bad weather. Rutting, roughness, and dust are present most of the time. There may be a few higher-standard roads, with limerock or paved surfacing. These are stable and smooth most of the time.

4.3-Standards and Guidelines

Range

4.3-1—Prohibit range allotments.

Recreation

4.3-2—Do not permit boat access sites more developed than the rustic level.

4.3-3—Only allow camping areas at development level 1 or 2.

Vegetation

4.3-4—If a restoration project involves replacement of an off-site tree species, to maintain the visual quality, do not create temporary openings larger than 10 acres.

4.3-5—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

Management Area 4.4
Moderate Recreational Development

Apalachicola NF	287	acres in LTA 2
	12,365	acres in LTA 3
	2,270	acres in LTA 4
	1,684	acres in LTA 5
	16,606	**total acres**
Ocala NF	520	acres in LTA 1
	1,417	acres in LTA 2
	2,042	acres in LTA 6
	3,979	**total acres**
Osceola NF	673	acres in LTA 1
	15	acres in LTA 5
	688	**total acres**

VQO = 50% Preservation & 50% Retention
ROS = 100% Roaded Natural
All acres unsuitable for timber production

4.4-Goal

To provide a predominantly natural-appearing environment with a moderate level of recreational development that may be experienced by people via motorized access into the area.

4.4-Desired Future Condition

The landscape appears largely natural. Vegetation patterns are mostly determined by natural processes—such as fires (including prescribed fire), storms, insects, and diseases. However, roads are common and create unnatural patterns on the landscape. The occasional recreational facilities—such as boat access sites, picnic areas, and camping areas— also create unnatural patterns on the landscape. Trees may reach a very old age, and some may have become snags. The area provides mid-sized (100-2,499 acres) patches of old growth. Approximately 35 percent of the area is designated old growth in the cypress/tupelo swamp, hardwood wetland, dry and dry mesic oak/pine, and upland mesic hardwood communities. Occasionally the visitor sees a lightning-struck tree. Fires are rare in wetter areas, but blackened tree trunks may be seen in drier areas, where low-intensity fires are frequent.

The quality of soil, water, and air is high. Heritage resource sites are likely to occur here. Access is provided primarily by roads. Recreation often centers around water—either lakes, rivers, or streams. Visitors often see others involved in recreation activities. There is a feeling of freedom and independence but with little challenge and risk. Within forested areas, nature enthusiasts and hunters are present occasionally. Motorized- and nonmotorized-use trails may be seen, particularly adjacent to water. Along these trails, facilities exist for the comfort and convenience of the user. Primitive, rustic, and developed boat ramps provide access to water. There are often on-site controls. Artificial nest structures (wood duck boxes) may be seen along and near the shoreline. Levels 1-3 camping areas can be found in the area.

Most roads are built to a low standard, have native surfacing, and conform in height to the surrounding ground. In low areas, they may have ditches and be above the surrounding ground. A few low-drainage points have low-water rock crossings. These roads are rough and irregular, making travel with low-clearance vehicles difficult. Higher-standard roads have a sand-clay surfacing, are higher than the surrounding ground, and have ditches. Drainage structures on these roads are culverts and, occasionally, bridges. These roads may be unstable during bad weather conditions. They have some rutting, roughness, and dust or mud present most of the time. There are a few higher-standard roads, with limerock or paved surfacing. These are stable and smooth most of the time.

4.4-Standards and Guidelines

Range

4.4-1—Prohibit range allotments.

Recreation

4.4-2—Only allow camping areas at development level 1, 2, or 3.

Vegetation

4.4-3—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

Management Area 4.5
Developed Recreation Area

Apalachicola NF	111	acres not inventoried
	246	acres in LTA 1
	36	acres in LTA 2
	107	acres in LTA 3
	11	acres in LTA 4
	229	acres in LTA 5
	740	**total acres**
Ocala NF	843	acres in LTA 1
	83	acres in LTA 2
	32	acres in LTA 3
	10	acres in LTA 4
	23	acres in LTA 5
	442	acres in LTA 6
	1,433	**total acres**
Osceola NF	1	acres in LTA 2
	276	acres in LTA 5
	277	**total acres**

VQO = 25% Preservation, 25% Retention, & 50% Modification
ROS = 100% Rural
All acres unsuitable for timber production

4.5-Goal

To provide a substantially modified setting in which recreation facilities are designed to allow a high degree of social interaction.

4.5-Desired Future Condition

In this area, the environment appears to have been modified. From a distance the vegetation patterns appear to be shaped by natural forces, but on closer inspection, many alterations have occurred and often the result is a landscaped look. Trees may be old, adding character to the site. Improvements—such as road and trail corridors, recreation facilities, and power lines—are common. Within the primary recreation use area, a brushy understory may exist and function as a screen between camping units to create a more enclosed environment, or the area may be open and parklike with swimming beaches and picnic tables. Snags are uncommon, but tree trunks may be somewhat blackened from prescribed fires. There may be some nonnative vegetation. There may be wildlife and fish habitat improvements (including fishing piers, boat launches, and fish structures). Also, wood duck nesting boxes may be seen on small water bodies throughout the area. There may be species that tolerate human activity.

The quality of soil, water, and air is high. Identified heritage sites are protected and interpreted. Roads of a high standard provide the main access. For people using the area, social interaction is high and is a key component of the experience. Isolation from the sights and sounds of other humans is rare. The primary use area may have many facilities. They are designed for the convenience of the user—such as boat access sites, buildings, campsites, interpretive features and services, paved and unpaved parking areas, sanitary structures, signs, and utility structures. Fishing piers, short interpretive trails, swimming beaches, and picnic facilities (including group shelters) may be provided. Campsite facilities may be present within a wide range of design standards to accommodate a full spectrum of camping vehicles. Structures to protect soil, water, and vegetation are evident. They may include barrier posts, gates, gabions, and water bars.

Most roads have paved surfacing, are slightly above the height of the surrounding ground, and have ditches. Drainage structures consist of culverts. These roads are very high standard, are stable and smooth, and have little or no dust. Other roads have sand-clay or limerock surfacing but otherwise conform to the description of paved roads.

4.5-Standards and Guidelines

Infrastructure

4.5-1—Install all new utilities underground.

Prescribed Fire

4.5-2—Schedule prescribed fires during periods of low recreation use.

Range

4.5-3—Prohibit range allotments.

Recreation

4.5-4—Construct and maintain to a minimum of level 3 any spur trails or interpretive trails inside or adjacent to this management area.

4.5-5—Manage recreation areas at full-service management.

4.5-6—To maintain visual quality, use herbicide only around signs, poles, buildings, and facilities where mowers or trimmers cannot accomplish the objective. Use only spot application of the herbicides.

4.5-7—Permit horses and pack animals and the use of off-highway vehicles in designated areas.

4.5-8—To maintain visual quality, preserve desirable screening or space-defining understory vegetation.

Vegetation

4.5-9—Prohibit harvesting of special forest products.

4.5-10—Classified as unsuitable for timber production on a regulated basis. Trees may be cut for other resource objectives.

5.0 Hardwood/Cypress Forest

These are areas of predominantly bottomland hardwood and cypress/gum swamps.

5.0-Desired Future Condition

Ecosystem is bottomland hardwood bordering a river and cypress/gum swamps, with slightly elevated ridges that have an overstory of scattered pine. Bottomlands are covered by a closed-canopy forest of tall, straight trees. These include cypress, loblolly bay, red maple, river birch, southern magnolia, spruce pine, sweetgum, tupelo, and several oak species. Understory may be either open—with ferns, herbs, and grasses—or dense and shrubby. Shrubs may include azaleas, briers, dahoon holly, dogwoods, poison ivy, silverbells, and wax myrtle. The elevated ridges support a sparse pine overstory of slash and pond pine with a dense understory of bay, blueberry, gallberry, and palmetto. Wildlife species are those that thrive in riverine wetlands.

Roads, rivers, and trails provide access to the area. Visitors may find a feeling of freedom and independence but with little challenge and risk. The sense of isolation from the sights and sounds of humans ebbs and flows with the coming and going of river traffic. Within forested areas, wildlife viewers and hunters are present occasionally. Motorized- and nonmotorized-use trails may be seen, particularly adjacent to rivers. Along these trails, facilities exist for the comfort and convenience of the user. Primitive, rustic, and developed boat ramps provide access to the river. Interpretive displays and signs may be present. Wood duck boxes may be seen along the river's shoreline.

Soil, water, and air quality are high. Most roads are low standard and may be difficult to travel with low-clearance vehicles. These have native surfacing. In low areas, they may have ditches or low-water rock crossings. Travel with low-clearance vehicles may be difficult. A few higher-standard roads have a sand-clay surfacing, are higher than the surrounding ground, and have ditches. In low areas, these have culverts or, occasionally, bridges. Even these roads may not be stable during bad weather conditions, and they have some rutting and dust or mud most of the time.

Management Area 5.1
No Hardwood/Cypress Timber Production

Ocala NF	217	acres in LTA 1
	16,923	acres in LTA 6
	17,140	**total acres**

VQO = 25% Preservation, 65% Retention, & 10% Modification
ROS = Semiprimitive - 50% Motorized & 25% Nonmotorized, & 25% Roaded Natural

Table 4.2
MA 5.1 Suitability for Timber Production

	Acres
Nonforestland	1,608
Not Capable	163
Inadequate Information	2,121
Developed Recreation Sites	41
Special Interest Areas	109
Threatened & Endangered Species Sites	2,097
Unsuitable Hardwood	6,311
Streamside Management Zones	118
Total Acres Unsuitable for Timber Production	**12,459**
Total Acres Suitable for Timber Production (pine only)	**4,681**

5.1-Goal

To retain bottomland hardwood forests with minimum disturbance, while providing for harvest of pine islands and ridges in the area and along its margins. To provide habitat for healthy populations of bald eagles.

5.1-Desired Future Condition

Bottomlands are found in their natural condition with little evidence of human disturbance. Vegetation patterns are shaped by natural processes—including floods, storms, insects, and diseases. The area provides mid-sized (100-2,499 acres) patches of old growth. Approximately 30 percent of the area is designated old growth in the cypress/tupelo swamp, river floodplain hardwood, hardwood wetland, and dry and xeric oak communities. Fires are rare in wetlands, so evidence of them—such as blackened tree trunks and plowed firelines—is almost nonexistent. Snags are often seen. Barring natural disturbance, bottomland forests are old. The slightly elevated pine ridges, by contrast, show evidence of human activity, including openings created by timber harvest. Here, fire is more common, and blackened tree trunks are evident. Infrequently the landscape may be interrupted by narrow roads.

Bald eagle and osprey nests are abundant in the elevated pine inclusions and dominant cypresses. Habitat is provided for 40 or more bald eagle nesting territories.

Openings in the pines are scattered here and there. In some of these openings, there may be green stumps of recent origin, piles of bark and branches, and broken shrubs. The size of the openings and the patterns of seedlings and saplings growing up in them match the pattern seen in nearby pine-dominated parts of the forests. Within recently harvested areas, patches of bare soil may exist.

5.1-Standards and Guidelines

Range

5.1-1—Prohibit range allotments.

Recreation

5.1-2—Do not permit rifle ranges.

5.1-3—Only allow camping areas at development level 1, 2, or 3.

Vegetation

5.1-4—Permit timber production only outside wetland areas in pine management types.

5.1-5—Manage pines the same as in the adjacent management area suitable for timber production.

7.0 Longleaf and Slash Pine, Adaptive Management

These areas are predominantly longleaf and slash pine forests that are managed with a focus on an adaptive approach in maintaining or restoring ecosystem health. A diverse patch size structure ranging from ¼ to 80 acres are found here.

7.0-Desired Future Condition

An adaptive management approach is emphasized in this area. Regeneration methods that have limited operational application are applied and tested here. Monitoring and close coordination with research provide feedback for adjustments in the desired future condition.

During the next two decades, portions of the longleaf pine forests are characterized by patches ranging between ¼ and 2 acres where longleaf pine regeneration is found. These areas will begin to take on an uneven-aged structure. Patches up to 80 acres are found in other areas where longleaf pine is restored. These areas will have an even-aged structure. A few patches up to 80 acres in size are found in the slash pine and loblolly pine forest types with a two-aged appearance.

After the next two decades, the area may take on another appearance. Monitoring and research may show that operational application of regenerating longleaf pine in small patches or regenerating slash and loblolly pine under canopies does not provide the conditions envisioned. The vision for the area may change to a different mixture of patch sizes and stand structures. As the forest ages, there will be more opportunities to provide two-aged patches of slash, loblolly, and longleaf pine. Even-aged patches of longleaf pine restoration up to 80 acres may continue to occur.

The area contains a mosaic of plant communities, depending mostly on the moisture conditions. Drier sites are upland pine dominated by longleaf pine, with an understory of wiregrass, low oak shrubs, and a variety of herbs. Patches of medium to large hardwood, especially oak, are scattered throughout. On wetter sites are pine flatwoods where longleaf pine is apt to be joined by slash, loblolly, and pond pine. Understory vegetation is commonly dominated by palmetto and gallberry, though there is wiregrass present. Along drainages and in basins are black gum, cypress, red maple, and other hardwood with titi and wax myrtle in the understory and along the margins.

The different plant communities are not separated by sharp boundaries, but change from one type to another gradually in response to fluctuations in water level and fire history. Occasionally fires may enter wetlands. Vegetation patterns are primarily the result of fire (including prescribed fire), hydrology, and timber-cutting activities. The pine canopy is open and parklike. Stumps are scattered throughout the forest, or they occur in groups in canopy openings. Pine regeneration is found in a variety of patch sizes from ¼ to 80 acres. The oldest, largest pine trees are flattopped, and many exceed 200 years in age. There are snags, downed trees, and lightning-struck trees. Much of the area would have old-growth conditions at any one time. The area provides small-sized patches of old-growth (1-99 acres) unsuitable for timber production.

Wildlife includes species that prefer mature longleaf and slash pine forests. Birds include Bachman's sparrows, brown-headed nuthatches, red-bellied woodpeckers, red-cockaded woodpeckers (RCWs), and southeastern kestrels. Mammals include black bears, bobcats, gray foxes, raccoons, and white-tailed deer. Gopher tortoises live here, along with numerous other species that share their burrows. Black racers, fence lizards, narrowmouth toads, oak toads, and red rat snakes are also found here. Basin wetlands attract species that like water—such as a variety of salamanders and frogs, snakes (including cottonmouths and mud snakes), and birds (including barred owls and wood ducks).

The quality of soil, water, and air is high. There may be smoke from prescribed fire. Wetlands show no evidence of draining, vehicular activity, or manipulation. Heritage resource sites may be dispersed throughout the area.

Generally, the area is large and continuous. Roads provide the main access. In some places, visitors may encounter other people and activities of various sorts. While in other places, visitors may be quite isolated. Recreational facilities—such as camping areas, fishing access sites, and trails—are found occasionally. Some of these have signs, interpretive displays, and other facilities for the comfort and safety of the user.

Most of the roads have native surfacing and are rough and irregular. In low areas, these usually have ditches and are above the surrounding ground. Many low-drainage points have low-water rock crossings. Travel with low-clearance vehicles is difficult. Other roads have a sand-clay surfacing, are higher than the surrounding ground, and have ditches. In low areas, these may have culverts or bridges. These roads may not be stable during bad weather conditions. Rutting, roughness, and dust are present most of the time. There will be a few higher-standard roads with limerock surfacing or pavement. These

are stable and smooth all the time. Remnants of roads leading from permanent roads to small openings can be seen.

Management Area 7.1
Longleaf/Slash Pine, Adaptive Management, RCW Management

Apalachicola NF	2,476	acres not inventoried
	378	acres in LTA 1
	23,036	acres in LTA 2
	1,216	acres in LTA 3
	227,932	acres in LTA 4
	121,448	acres in LTA 5
	376,486	**total acres**
Ocala NF	31,996	acres in LTA 1
	129	acres in LTA 2
	3,652	acres in LTA 6
	35,777	**total acres**
Osceola NF	2,581	acres in LTA 1
	1,482	acres in LTA 2
	481	acres in LTA 3
	934	acres in LTA 4
	89,999	acres in LTA 5
	95,477	**total acres**

VQO = 25% Retention & 75% Partial Retention
ROS = Semiprimitive - 15% Motorized & 10% Nonmotorized, & 75% Roaded Natural

Table 4.3
MA 7.1 Suitability for Timber Production

	Apalachicola NF	Ocala NF	Osceola NF
Nonforestland	3,126	641	818
Physically Unsuitable	104,196	0	185
Inadequate Information	512	540	291
Developed Recreation Sites	561	0	12
Special Interest Areas	0	50	0
Threatened & Endangered Species Sites	13,860	1,333	3,622
Unsuitable Hardwood	62,150	2,202	26,348
Streamside Management Zones	983	73	329
Total Acres Unsuitable for Timber Production	**185,588**	**4,839**	**31,605**
Total Acres Suitable for Timber Production	**190,898**	**30,938**	**63,872**

7.1-Goal

To allow or mimic natural processes and patterns to maintain a rich diversity of native plants and animals, including recovery of the red-cockaded woodpecker. To produce poletimber and large pine sawtimber. To provide a wide range of opportunities for people to use and experience the forest.

7.1-Desired Future Condition

The vision for this area is the same as in DFC 7.0 except this area is within an RCW habitat management area (HMA). Mature flattop longleaf and slash pines with woodpecker cavities are seen throughout the pine forests. Much of the area would have

old-growth conditions at any one time. The area provides small-sized patches of old growth (1-99 acres) unsuitable for timber production. Approximately 1 percent of the area is designated old growth in the upland longleaf pine and southern wet pine communities. Frequent, low-intensity fires are indicated by blackened tree trunks and open, parklike stands with little or no midstory near RCW clusters. Grazing cattle are not found here.

7.1-Standards and Guidelines

Range

7.1-1—Prohibit range allotments.

Recreation

7.1-2—Only allow camping areas at development level 1, 2, or 3.

Vegetation

7.1-3—The area is an RCW HMA, follow standards established in the *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region*, except for deviations noted in Chapter 3.

Management Area 7.2
Longleaf/Slash Pine, Adaptive Management, RCW Management, Cattle

Apalachicola NF	9,811	acres in LTA 2
	30	acres in LTA 3
	7,938	acres in LTA 4
	26,292	acres in LTA 5
	44,071	**total acres**
Osceola NF	287	acres in LTA 2
	34,662	acres in LTA 5
	34,949	**total acres**

VQO = 25% Retention & 75% Partial Retention
ROS = Semiprimitive - 15% Motorized & 10% Nonmotorized, & 75% Roaded Natural

Table 4.4
MA 7.2 Suitability for Timber Production

	Apalachicola NF	Osceola NF
Nonforestland	335	129
Physically Unsuitable	7,692	9
Inadequate Information	160	0
Developed Recreation Sites	0	0
Special Interest Areas	0	0
Threatened & Endangered Species Sites	3,044	873
Unsuitable Hardwood	8,525	8,776
Streamside Management Zones	115	39
Total Acres Unsuitable for Timber Production	**19,871**	**9,826**
Total Acres Suitable for Timber Production	**24,200**	**25,123**

7.2-Goal

To allow or mimic natural processes and patterns to maintain a rich diversity of native plants and animals, including recovery of the red-cockaded woodpecker. To produce poletimber and large pine sawtimber. To provide forage for cattle grazing. To provide a wide range of opportunities for people to use and experience the forest.

7.2-Desired Future Condition

The vision for this area is the same as in DFC 7.0, except that this area is within an RCW HMA and cattle grazing is allowed. Mature flattop longleaf and slash pine with woodpecker cavities are seen throughout the pine forests. Much of the area would have old-growth conditions at any one time. The area provides small-sized patches of old growth (1-99 acres) unsuitable for timber production. Approximately 2 percent of the area is designated old growth in the upland longleaf pine and southern wet pine communities. Frequent, low-intensity fires are indicated by blackened tree trunks and open, parklike stands with little or no midstory near RCW clusters.

7.2-Standards and Guidelines

Range

7.2-1—Require the permittee to use practices that lessen the risk of introducing invasive weeds. For example, hay should come from a source free of invasive weeds or their seeds and new cattle should be penned for several days to allow gut evacuation before they are released on the forest.

7.2-2—To prevent introduction of disease into wild bird populations, do not allow use of poultry litter as a feed supplement or fertilizer.

7.2-3—When cattle are determined to be detrimental, keep them out of progeny test areas, savannahs, sensitive heritage sites, streams, ponds, herb bogs, and areas with endangered or threatened species.

7.2-4—Schedule prescribe fire in the allotments to include growing-season burns as needed for ecosystem management and to improve forage.

7.2-5—Do not create new range strips; existing range strips may be maintained.

Recreation

7.2-6—Only allow camping areas at development level 1, 2, or 3.

Vegetation

7.2-7—The area is an RCW HMA; follow the standards established in the *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region*, except for deviations noted in Chapter 3.

Management Area 7.3
Longleaf/Slash Pine, Adaptive Management, No RCW Management

Ocala NF	22,480	acres in LTA 1
	1,628	acres in LTA 2
	10,857	acres in LTA 3
	7,934	acres in LTA 5
	15,645	acres in LTA 6
	58,544	**total acres**
Osceola NF	16,504	acres not inventoried
	16,504	**total acres**

VQO = 25% Retention & 75% Partial Retention
ROS = Semiprimitive - 15% Motorized, 10% Nonmotorized, & 75% Roaded Natural

Table 4.5
MA 7.3 Suitability for Timber Production

	Ocala NF	Osceola NF
Nonforestland	5,496	0
Physically Unsuitable	325	0
Inadequate Information	371	9,155
Developed Recreation Sites	375	0
Special Interest Areas	3	0
Threatened & Endangered Species Sites	809	0
Unsuitable Hardwood	7,473	3,455
Streamside Management Zones	570	0
Total Acres Unsuitable for Timber Production	**15,422**	**12,610**
Total Acres Suitable for Timber Production	**43,122**	**3,894**

7.3-Goal

To allow or mimic natural processes and patterns to maintain a rich diversity of native plants and animals. To produce poletimber and large pine sawtimber. To provide a wide range of opportunities for people to use and experience the forest.

7.3-Desired Future Condition

The vision for this area is the same as in DFC 7.0, except that this area is not within an RCW HMA. Grazing cattle are not found here. Much of the area would have old-growth conditions at any one time. The area provides small-sized patches of old growth (1-99 acres) unsuitable for timber production. Approximately 6 percent of the area is designated old growth in the upland longleaf pine, dry and dry mesic oak/pine, and upland mesic hardwood communities.

7.3-Standards and Guidelines

Range

7.3-1—Prohibit range allotments.

Recreation

7.3-2—Only allow camping areas at development level 1, 2, or 3.

8.0 Sand Pine and Oak Scrub

These areas are predominately sand pine and oak scrub that are found on the Ocala NF.

8.0-Desired Future Condition

Sand pine scrub is an ecosystem where disturbance of the landscape is readily apparent. The ecosystem is adapted to go through a cycle in which intense wildfires kill all above-ground vegetation, then the vegetation grows up, only to burn again in 20 to 80 years. Species native to this ecosystem depend on the cyclic opening and regrowth to find their special habitats. In this area, natural wildfires are suppressed and openings are primarily created by timber harvests. These are similar in their effects to wildfires, though they are usually smaller than wildfires and leave less deadwood on the site. The pattern of the landscape is largely the result of human activity. Wildfires and, occasionally, prescribed fires done for experimental purposes are responsible for some patches of blackened, dead trees and burned understory. Plowed firelines may be encountered around these patches. In addition, the landscape is interrupted often by narrow road corridors.

Plants that typify this ecosystem are sand pine and shrubs—such as Chapman's oak, myrtle oak, palmetto, rosemary, rusty lyonia, sand live oak, scrub oak, and the endemic Calamintha. Herbs in the young scrub include beakrush, milk pea, and several rare species, including Florida bonamia, scrub buckwheat, and small Lewton's milkwort. This area is notable for having the highest diversity of rare scrub plant species. Also noteworthy are the animals that are scrub endemics, such as the Florida mouse, Florida scrub-jay, Florida scrub lizard, and sand skink. In addition, the sand pine-scrub oak community contains wildlife common to disturbed forested conditions.

In recent openings, there are green stumps, broken shrubs, and piles of bark and branches, left behind to fertilize the site as they decay. Some live trees remain, left behind to provide perches and cavities for birds. Soil surface is mostly bare sand. Within 3 years, the opening is full of knee-high shrubs, especially oaks, and small sand pine seedlings can be found among them. In this young scrub, flowering herbs add splashes of color.

Ten years later, the sand pine has begun to overgrow the oak shrubs and the area may be impenetrable. Herbs die back as the ground becomes too shaded for them. In 20 more years, sand pine trees are 60 feet tall and shrub understory is 10 feet tall. The ground becomes covered with leaf litter and lichens. In the following few decades, trees become a little thicker and Spanish moss hangs on them. Most stands of trees are harvested in this stage, and the cycle begins again for them. If a fire or timber harvest did not start the cycle over, sand pine trees gradually would die out by age 70 to 90, leaving an oak-dominated scrub that would grow into an oak hammock.

The quality of water, soil, and air is high. Heritage resource sites are not common in this ecosystem.

Roads provide the primary access. People riding in or driving off-highway vehicles are common users and may be encountered on the frequent tracks in the area. Occasionally administrative and timber harvest vehicles are seen. Few facilities are found; but there may be some interpretive displays, signs, and facilities for the comfort and convenience of the user.

Most roads have native surfacing, conform in height to the surrounding ground, and have no ditches. These roads are of low standard, rough, and irregular. Travel with low-clearance vehicles is difficult. Other roads have a sand-clay surfacing and have ditches. Drainage structures consist of culverts. These roads are of a fair standard but may not be stable during bad weather conditions. Rutting, roughness, and dust are present most of the time. There will be a few higher-standard roads, with limerock or paved surfacing. The limerock roads are stable and smooth most of the time. Paved roads are stable and smooth all the time. Remnants of roads leading from permanent roads to openings can be seen.

Management Area 8.1
Sand Pine, Natural Regeneration, Large Openings

Ocala NF	14,736	acres in LTA 1
	74	acres in LTA 2
	14,810	**total acres**

VQO = 10% Preservation & 90% Modification
ROS = 20% Semiprimitive, Nonmotorized & 80% Roaded Natural

Table 4.6

MA 8.1 Suitability for Timber Production

	Acres
Nonforestland	151
Unsuitable Hardwood	353
Streamside Management Zones	4
Total Acres Unsuitable for Timber Production	**508**
Total Acres Suitable for Timber Production	**14,302**

8.1-Goal

To produce pine pulpwood under conditions that promote the growth and perpetuation of the species endemic to the Big Scrub area within the Ocala NF. To provide a wide range of opportunities for people to use and experience the forest.

8.1-Desired Future Condition

Approximately one-fifth of the area contains scattered openings up to 320 acres in size. Most seedlings are the result of natural regeneration, so they are not in rows and their density can be variable from site to site. About 5 percent of the stands are left to grow older. In these, trees start to lean and some die, giving the stand an increasingly open, crooked, and picturesque look, as well as retaining an important habitat component. Each opening of up to 320 acres provides contiguous suitable habitat for 8 to 13 Florida scrub-jay territories.

8.1-Standards and Guidelines

Range

8.1-1—Prohibit range allotments.

Recreation

8.1-2—Only allow camping areas at development level 1, 2, or 3.

Vegetation

8.1-3—Make clearcuts as large as possible, up to a maximum size of 320 acres. Openings may be placed next to each other up to the maximum size of 320 acres. Stands contiguous with occupied scrub-jay territory are highest priority for harvest. Once the opening size reaches 320 acres, do not allow further clearcutting adjacent to it until the youngest stand reaches 3 years of age. Manage toward a minimum stand size of 80 acres.

8.1-4—Emphasize site preparation for prescribed fire. Delay burning if active nesting is present. When needed, mechanical site preparation is permitted.

8.1-5—Use natural regeneration, wherever possible. If this fails, use artificial seeding with seed from the general forest area.

Wildlife and Fish

8.1-6—Following timber harvest, establish 1 acre stands of scrub for every 25 acres of clearcut to provide nesting habitat for scrub-jay. Protect the 1 acre stands during site preparation.

8.1-7—Do not site prepare understocked stands 3 years old and older if scrub-jays are present in the stand.

Management Area 8.2
Sand Pine, Mixed Regeneration, Moderate Openings

Ocala NF	171,507	acres in LTA 1
	9,157	acres in LTA 2
	14,609	acres in LTA 3
	74	acres in LTA 5
	5,796	acres in LTA 6
	201,143	**total acres**

VQO = 10% Preservation & 90% Modification
ROS = 20% Semiprimitive, Motorized & 80% Roaded Natural

Table 4.7
MA 8.2 Suitability for Timber Production

	Acres
Nonforestland	8,704
Inadequate Information	724
Developed Recreation Sites	79
Special Interest Areas	52
Threatened & Endangered Species Sites	226
Unsuitable Hardwood	11,955
Streamside Management Zones	846
Total Acres Unsuitable for Timber Production	**22,586**
Total Acres Suitable for Timber Production	**178,557**

8.2-Goal

To produce pine pulpwood under conditions that balance efficient timber production practices with practices that promote the growth and perpetuation of species native to the Big Scrub area within the Ocala NF. To provide a wide range of opportunities for people to use and experience the forest.

8.2-Desired Future Condition

Approximately one-fifth of the area contains openings up to 160 acres scattered here and there, creating a mosaic of different aged stands that vary over time. Most seedlings are the results of artificial regeneration, while some seedlings are the result of natural regeneration, so they are not in rows and their density can be variable from site to site. About 5 percent of the stands are left to grow older. In these, trees start to lean and some die, giving the stand an increasingly open, crooked, and picturesque look, as well as providing an important habitat component. Each opening of up to 160 acres provides contiguous suitable habitat for 3 to 6 Florida scrub-jay territories.

8.2-Standards and Guidelines

Range

8.2-1—Prohibit range allotments.

Recreation

8.2-2—Only allow camping areas at development level 1, 2, or 3.

Vegetation

8.2-3—Clearcut sizes should range from 80 to 160 acres. Manage toward a minimum stand size of 80 acres. Place openings next to each other up to the 160-acre maximum size. Stands contiguous with occupied scrub-jay territory are highest priority for harvest. Once the opening size reaches 160 acres, do not allow further clearcutting adjacent to it until the youngest stand reaches 3 years of age.

8.2-4—Do not protect from prescribed fire isolated sand pine stands in Ponded Mosaic Landtype Association that are less than 80 acres.

Wildlife and Fish

8.2-5—Following timber harvest, establish 1 acre stands of scrub per 25 acres of clearcut to provide earlier nesting habitat for scrub-jay. Protect the 1 acre stands during site preparation.

8.2-6—Do not site prepare or prescribe burn understocked stands 3 years old and older if scrub-jays are present in the stand.

Management Area 8.4
Scrub-Jay Management Area

Ocala NF	1,874 acres in LTA 1
	1,874 total acres

VQO = 100% Modification
ROS = 100% Semiprimitive, Motorized
All acres unsuitable for timber production

8.4-Goal

To provide conditions favorable to perpetuate Florida scrub-jay and other species that require young oak scrub and inhabit the Big Scrub area within the Ocala NF.

8.4-Desired Future Condition

In this area, the vegetation patterns consist of a mosaic of oak scrub patches, each about 80 to 200 acres in size and each a different age than its neighbor. Each patch is burned at 10- to 20-year intervals. This is done to keep the oak shrubs 3 to 10 feet tall and to expose bare sand on the ground. The area looks different from the sand pine scrub in other management areas, because this area has only a very low density of sand pine overstory. Sand pine is deliberately removed by clearcutting, followed by frequent prescribed burns that kill sand pine seedlings as they try to establish. These conditions remain suitable for Florida scrub-jays for the next 15 to 20 years, but they gradually deteriorate as the shrubs fill in and the bare sand becomes covered with litter. At this point, the patch is burned to reset the conditions for the scrub-jay and other species. Evidence of plowed firelines around previous fires is frequently encountered. The landscape is rarely interrupted by narrow road corridors.

Roads and trails provide access. Visitors may encounter others along these roads and trails, off-road vehicle users and horseback riders among them. A loop interpretive trail with displays may be found in the area, which attracts nature enthusiasts. However, other sorts of recreation facilities, such as camping and picnic areas, are not found here.

Most roads have native surfacing, conform in height to the surrounding ground, and have no ditches. These roads are low standard and are rough and irregular. Travel with low-clearance vehicles may be difficult.

Each opening of up to 200 acres provides contiguous suitable habitat for 4 to 10 Florida scrub-jay territories.

8.4-Standards and Guidelines

Range

8.4-1—Prohibit range allotments.

Recreation

8.4-2—Only allow camping areas at development level 1, 2, or 3.

Vegetation

8.4-3—In this management area, the desired future condition can best be achieved by having 80 percent of the merchantable sand pine stands clearcut within the first decade after this Forest Plan goes into effect.

8.4-4—After clearcutting, prescribe burn the area to start natural regeneration of scrub oak. Prescribe burn when the vegetation has grown so old that its quality as scrub-jay habitat is degraded. Delay burning if active nesting is present.

Wildlife and Fish

8.4-5—Do not cultivate wildlife openings.

9.0 Special Administration

These are areas with special administrative conditions such as the Pinecastle Bombing Range, the forest/urban interface, and small tracts of land administered by the Forest Service on Eglin Air Force Base.

Management Area 9.1
Pinecastle Bombing Range

Ocala NF	5,698 acres in LTA 1
	5,698 total acres

VQO = 25% Modification & 75% Maximum Modification
ROS = not applicable
All acres unsuitable for timber production

9.1-Goal

To provide an area with frequent disturbance, managed for rare scrub endemic species such as Florida scrub-jay, that may be used for training air squadrons in air-to-ground warfare.

9.1-Desired Future Condition

Vegetation patterns are primarily the results of activities associated with prescribed fire, wildfire, or live ordnance. Together, these create openings in the sand pine canopy, some of which can be very large in the target area. These openings are filled with scrub vegetation in various stages of recovery from having been burned. Since this ecosystem is adapted to a high level of disturbance, especially by intense wildfires, bombing activities leave it more natural than might be expected. In places, evidence of fires is seen in the form of dead trees, both standing and fallen. In addition, the landscape is interrupted occasionally by narrow road corridors, observation towers, and bomb targets consisting of vehicle hulks, tanks, mock airstrips, aircraft hulks, gun emplacements, banners, cleared areas, and concentric circles with large poles. Bombs, both practice and live, may lie on the ground or beneath the surface for a period of time.

Plants typical in this community include one tree species (sand pine) and a variety of shrubs—such as Chapman's oak, sand live oak, myrtle oak, palmetto, rosemary, and rusty lyonia. These all reestablish quickly after a fire activity, so their size and the amount of bare soil depends on the length of time since the disturbance. Herbs also thrive in this

disturbance, growing up quickly while the area is still open. These include several rare plants such as Florida bonamia, Calamintha, scrub buckwheat, and small Lewton's milkwort, as well as the more common beakrush and milk pea.

Rare endemic wildlife species occur here—including Florida scrub-jay, Florida mouse, Florida scrub lizard, and sand skink. Prescribed fires provide abundant young scrub habitat. Scrub-jay may be especially abundant in areas that remain in young scrub-oak habitat due to the relatively frequent fire activity. This community contains wildlife common to disturbed or open-forested conditions—such as Carolina wrens, bobwhite quail, nighthawks, rufous-sided towhees, white-tailed deer, eastern cottontails, gray foxes, eastern coachwhips, scarlet snakes, racers, southern toads, and southern fence lizards. In addition to these, some less common wildlife are loggerhead shrikes, great crested flycatchers, brown thrashers, indigo snakes, Florida pine snakes, southern hognose snakes, gopher tortoises, pinewoods and barking tree frogs, fox and gray squirrels, and bobcats.

The quality of water, soil, and air is high. Patches of bare soil may cover 100 percent of a site where a live bomb has struck and in the target area. Bare soil is common in the early stages of vegetation regrowth. Heritage resource sites are unlikely to occur here, since the scrub vegetation has always been uninviting for humans. If sites do occur, they are likely to be dispersed, not clustered. They may have been degraded by both natural forces (storms, fires, and root growth) and human activities of road construction and explosives.

Roads provide access but are closed except to authorized individuals. Depending on the training schedule, the public may be either isolated or exposed to loud noises. Trails or recreational facilities do not exist here. Interpretive displays and publications about the area may be found at off-site locations.

Most roads in the area have native surfacing, conform in height to the surrounding ground, and have no ditches. These roads are rough and irregular. Travel with low-clearance vehicles is difficult. A few roads have a sand-clay or limerock surfacing and have ditches. These roads are of a fair standard, but most roads are travelable by four-wheel-drive vehicles. For public safety, the area is closed to public use.

9.1-Standards and Guidelines

Fire

9.1-1—Coordinate prescribed fire with the U.S. Navy.

9.1-2—Responsibility for wildfire suppression lies with the U.S. Navy. Requests for help from the U.S. Navy may be honored.

Heritage Resources

9.1-3—Do not allow volunteers.

9.1-4—Do not use ground-disturbing equipment in archeological survey, testing, excavation, and research.

Law Enforcement

9.1-5—Coordinate with U.S. Navy when law enforcement officers need to enter the bombing range.

Range

9.1-6—Prohibit range allotments.

Recreation

9.1-7—Close to the public.

Vegetation

9.1-8—Prohibit harvesting of special forest products.

9.1-9—Coordinate all salvage harvests with U.S. Navy.

9.1-10—Coordinate all timber harvests with U.S. Navy.

Wildlife and Fish

9.1-11—Prohibit cultivated wildlife openings and artificial structures for non-PETS species.

Management Area 9.2
Forest/Urban Interface

Apalachicola NF	27,357	acres in LTA 1
	19,339	acres in LTA 4
	25,876	acres in LTA 5
	72,572	**total acres**

VQO = 25% Preservation & 75% Retention
ROS = Semiprimitive - 15% Motorized & 10% Nonmotorized, & 75% Roaded Natural

Table 4.8

MA 9.2 Suitability for Timber Production

	Acres
Nonforestland	805
Physically Unsuitable	218
Inadequate Information	1,016
Developed Recreation Sites	669
Special Interest Areas	38
Threatened & Endangered Species Sites	1,357
Unsuitable Hardwood	19,413
Streamside Management Zones	251
Total Acres Unsuitable for Timber Production	**23,767**
Total Acres Suitable for Timber Production	**48,805**

9.2-Goal

To allow or mimic natural processes and patterns to maintain a rich diversity of native plants and animals, including the red-cockaded woodpecker. To produce poletimber and large pine sawtimber. To provide a high level of opportunities for motorized and nonmotorized recreation. To maintain cooperative relationships with other jurisdictional governments.

9.2-Desired Future Condition

An adaptive management approach is emphasized in this area. Harvest methods that have limited operational application are applied and tested here. Monitoring and close coordination with research provide feedback for adjustments in the desired future condition.

During the next two decades, portions of the longleaf pine forests are characterized by patches ranging between ¼ and 2 acres where longleaf pine regeneration is found. These areas will begin to take on an uneven-aged structure. Patches up to 80 acres are found in other areas where longleaf pine is restored. These areas will have an even-aged structure. A few patches up to 80 acres in size are found in the slash pine and loblolly pine forest types with a two-aged appearance.

After the next two decades, the area may take on another appearance. Monitoring and research may show that operational application of regenerating longleaf pine in small patches or regenerating slash and loblolly pine under canopies does not provide the conditions envisioned. The vision for the area may change to a different mixture of patch sizes and stand structures. As the forest ages, there will be more opportunities to provide two-aged patches of slash, loblolly, and longleaf pine. Even-aged patches of longleaf pine restoration up to 80 acres may continue to occur.

The area contains a mosaic of plant communities, depending mostly on moisture conditions. Drier sites are upland pine dominated by longleaf pine, with an understory of wiregrass, low oak shrubs, and a variety of herbs. Patches of medium to large hardwood, especially oaks, are scattered throughout. On wetter sites are pine flatwoods where longleaf pine is apt to be joined by slash, loblolly, and pond pine. Understory is commonly dominated by palmetto and gallberry, though there is wiregrass present. Along drainages and in basins are cypress, black gum, red maple, and other hardwoods with titi and wax myrtle in the understory and along the margins. The different plant communities are not separated by sharp boundaries, but change from one type to another gradually in response to fluctuations in water level and fire history. Much of the area would have old-growth conditions at any one time. The area provides small-sized patches of old growth (1-99 acres) unsuitable for timber production. Approximately 5 percent of the area is designated old growth in the upland longleaf pine, southern wet pine, dry and dry mesic oak/pine, and dry and xeric oak communities.

Wildlife includes species that prefer mature longleaf pine-wiregrass forest, such as the red-cockaded woodpecker. Mature flattop longleaf and slash pines with woodpecker cavities are seen throughout the pine forests.

The quality of water, soil, and air is high. There may be smoke from prescribed fire. Fire and hazardous fuels are managed in close cooperation with State and county agencies. Wildfire is aggressively suppressed when it threatens life or property. Wetlands show no evidence of draining, vehicular activity, or manipulation. Heritage resource sites may be dispersed throughout the area rather than clustered. Natural disturbances (fires, storms, and root growth) are apt to have degraded them. Actions are taken to prevent looting and vandalism.

Roads and trails provide access. Trail systems are coordinated with other local agencies. Trails are linked to other management areas, developed sites, and other nearby trails. Visitors may encounter other people, activities of various sorts, and residential developments on intermingled private land. Recreational use of these areas may be restricted where necessary to reduce conflicts between landowners and visitors. Trails and recreational facilities, such as fishing access sites and picnic areas, are common. These often have signs, interpretive displays, and other facilities for the comfort and safety of the user. New facilities (trailheads, parking areas, designated sites, and developed sites) are located in areas that minimized conflicts.

Most roads have native surfacing and are rough and irregular. In low areas, these roads usually have ditches and are above the surrounding ground. Many low-drainage points have low-water rock crossings. Travel with low-clearance vehicles is difficult. Other roads have sand-clay surfacing, are higher than the surrounding ground, and have ditches. In low areas, these may have culverts or bridges. These roads may not be stable during bad weather conditions. Rutting, roughness, and dust are present most of the time. There will be a few higher-standard roads with limerock surfacing or pavement. These are stable and smooth most of the time. Remnants of roads leading from permanent roads to small openings can be seen.

9.2-Standards and Guidelines

Access

9.2-1—Restrict motorized vehicles to open, numbered roads and designated trails, administrative use, and activities under contract or permit.

Law Enforcement

9.2-2—Emphasize law enforcement activities.

Range

9.2-3—Prohibit range allotments.

Recreation

9.2-4—Only allow camping areas at development level 1, 2, or 3.

Vegetation

9.2-5—Follow standards established in the *Record of Decision, Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region*. Deviation can be approved only by the U.S. Fish and Wildlife Service.

Management Area 9.3
Choctawhatchee Lands

Choctawhatchee NF 1,153 acres not inventoried

VQO = 50% Preservation & 50% Modification
ROS = 100% Roaded Natural
All acres unsuitable for timber production

9.3-Goal

This area is managed at a custodial level. Because the area consists of isolated, small parcels, they are considered for exchange. The area is managed under a Memorandum of Understanding with Eglin Air Force Base. A map of the Choctawhatchee does not appear in this document because of the large scale that is required to show the small amount of scattered acres. Maps are maintained in the Supervisor's Office.

9.3-Standards and Guidelines

Range

9.3-1—Prohibit range allotments.

Recreation

9.3-2—Open area to the public. Allow dispersed camping, but do not allow trails, recreational facilities, or designated camping areas.

Vegetation

9.3-3—Prohibit harvesting of special forest products and salvaging of dead stands.

9.3-4—This area is classified as unsuitable for timber production. Trees may be cut for other resource objectives.

Wildlife and Fish

9.3-5—Prohibit cultivated wildlife openings and artificial structures for non-PETS species.

CHAPTER 5

MONITORING, EVALUATION, RESEARCH, AND IMPLEMENTATION

Monitoring, evaluation, and research are the heart of adaptive management and are the quality control mechanisms for the Forest Plan. No single monitoring item or parameter automatically triggers a change in Forest Plan direction. An interdisciplinary, holistic approach is used to evaluate information and decide what changes are needed. Although this plan establishes direction for 10-15 years, it may take longer to address adequately some questions and research needs identified in this chapter. Monitoring determines whether:

- Projects are implemented in compliance with plan direction, project design, and the National Environmental Policy Act (NEPA) decision.
- Forest and management area standards and guidelines are followed.
- Standards and guidelines in the Forest Plan are effective.
- Planned goals and objectives are met.
- The forest is moving toward the desired future conditions.
- Emerging public issues are being addressed.
- Research and baseline inventory needs are identified.
- Assumptions, relationships, and decisions are valid considering new information or changing conditions.
- Specific requirements of the National Forest Management Act are being met.

Three types of monitoring will be conducted on *National Forests in Florida*: implementation, effectiveness, and validation.

Implementation Monitoring

Implementation monitoring answers the question, ``Did we do what we said we would do?'' It is the most basic level of monitoring. This monitoring determines whether or not projects and activities are designed and conducted in compliance with plan direction, project design, and the NEPA decision.

District Rangers will ensure that all projects are designed and implemented in compliance with Forest Plan direction. Documentation of compliance will be provided in the decision documents.

A sample of decision documents will be randomly selected from each administrative unit and reviewed for plan compliance by an ad hoc forest-level interdisciplinary team.

A representative sample of the decisions will be field reviewed annually by an ad hoc forest-level interdisciplinary team to ensure implementation compliance. Projects will be selected from reviewed decision documents. Priority for review will be established annually considering current issues and concerns.

Effectiveness and Validation Monitoring

Effectiveness monitoring answers the questions, ``By doing what we said we would do, are standards and guidelines effective, are we effectively accomplishing our goals and objectives, and are we moving toward our desired future condition? Are mitigation measures preventing or minimizing undue environmental harm?''

Validation monitoring answers the questions, ``Are Forest Plan data, assumptions, coefficients, standards, and guidelines used in development of the plan still valid? Is there a better way to meet plan goals and objectives?'' Validation monitoring assesses the continuing validity of the Forest Plan in light of new information, research, changing policy, emerging issues, and resource conditions.

Specific monitoring questions are identified and directly linked to Forest Plan goals, desired future conditions, objectives, standards, guidelines, and specific regulatory requirements that apply to the questions above. Every goal, objective, standard, and guideline cannot be monitored. Relevancy to issues, compliance with legal and agency policy, scientific credibility, administrative feasibility, long- and short-term budget considerations, and impact on work force all influence monitoring priorities.

Each monitoring question has a monitoring item to answer the question. **Table 5.1: No such cross-reference source fieldTable: No such cross-reference source field** shows the monitoring questions and items and the relationship to the Forest Plan goals, objectives, standards, and guidelines. For each monitoring question, a monitoring task sheet will be completed. These task sheets are used to develop the details, priorities, and budgeting for answering the monitoring questions. Changes to task sheets will not require a Forest Plan amendment unless the goals, objectives, or standards and guidelines being monitored change. Task sheets are found in Appendix E, ``Monitoring Tasks''.

An annual monitoring and evaluation report will be prepared and will be available to the public. This report will provide a basis for making needed changes in implementation schedules or plan direction as appropriate.

Management indicator species are selected, in part, to help ensure that viable populations of plant and animal species are maintained in the planning area and because their population changes are believed to indicate the effects of management activities. The 36 CFR 219 Planning Regulations directs that "Population trends of management indicator species will be monitored and relationships to habitat changes determined." To meet the intent of the regulations, Table 5.1 identifies the use of management indicator species (MIS) to monitor the effectiveness of the plan direction in meeting the desired habitat conditions and plant/animal outcomes. Table 5.2 identifies the range of forest communities and the measures (or indicators) for monitoring outcomes, including the selected MIS. The monitoring approaches differ among the MIS in Table 5.3 based on consideration of several factors including (1) the degree of risk in the species, (2) strength of the reliability of relationships between populations and habitats, and (3) the feasibility of the monitoring approaches for different species and habitats.

Table 5.1

Monitoring Program

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
1,5	1	N/A	Are people satisfied with service from the national forests in Florida?	Public survey Public inquiries	Baseline	5-Year Review
2	N/A	N/A	How much public participation do we have?	Status Report	Baseline	Annual
3-4	2	N/A	Have partnerships been strengthened?	Status Report	Baseline	Annual
5	N/A	N/A	How are we contributing to the socioeconomic well-being?	Returns to counties, indirect benefits through timber, recreation, range allotments, status report on rural development propgrams	Baseline	Annual
6, 8-10	3	VG-16	How much off-site slash pine has been restored to other types?	Acres type-converted from slash pine to other spp.	10,000-15,000 acres by clearcut and 8,000 acres by removal in 10 years	Annual
		VG-18	Has soil disturbance been minimized in preparing longleaf and slash pine sites for tree regeneration?	Percent of the area treated with soil displacement	No more than 10% of the area treated with soil displacement	Annual
			Are we collecting data on understory structure?	CISC report data on understory field	Increasing trend in stands with data collected	Annual
6, 8-9	7	DFC 8.2-4	How much off-site sand pine has been restored, and to what other types?	Acres type-converted from off-site sand pine to other species	500-1,000 acres in 10 years	Annual
6, 8-10	4	N/A	What is the burning interval of upland pine acres?	Acres of upland pine burned	3-year average interval over 10-year period	Annual
			In what months have they been burned?	Acres burned by month	Increasing trend toward 50% between March 15 and Sept. 30 and 20% between May 1 and July 31	Annual
6, 8-10	5	N/A	How many acres have been offered for thinning?	# acres thinning harvest offered	45,000 to 50,000 acres in 10 years	Annual
6, 8-10	6	N/A	How many acres have we initiated uneven-aged management harvest on?	# acres offered with uneven-aged harvest	30,000 to 33,500 acres in 10 years	Annual

N/A – not applicable CISC – Continuous Inventory of Stand Conditions DFC – desired future condition

Table 5.1 (cont.)

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
6, 8-10	18	N/A	How many acres have we initiated irregular shelterwood harvest?	# acres offered with irregular shelterwood harvests	1,800 to 2,000 acres in 10 years	Annual
6, 8-10	19	N/A	How many acres of sand pine have had a regeneration harvest?	# acres offered with sand pine regeneration harvest	39,000 to 41,000 acres in 10 years	Annual
11	N/A	N/A	Do forest visitors understand Forest Service practices and do they value and respect the resource being interpreted?	# of opportunities and facilities (signs, talks, brochures) per district and quality	$\geq$ 2 facilities at each district that met MM standards	Annual
12	11	N/A	What percent of each type of recreation site (at least 1 swimming, 1 hiking, 1 fishing) is accessable? (Level 3 and above)	% of accessible by type of recreation site	(Level 3 and up) $\geq$ 20%	Annual
13	12	N/A	Are developed recreation facilities providing MM standard for safety, cleanliness, and service? Do they reflect quality and customer service?	Evaluations of each facility component are define by MM standards and customer survey forms	Compliance to MM standards and 90% customer satisfaction	Annual
14	13, 14	N/A	What system of trails has been designated on the ground, and are they maintained at appropriate level? How many miles of Florida National Scenic Trail have been certified for public use?	Miles of trails, by type and condition # miles of Florida National Scenic Trail certified	Baseline $\geq$ 750 miles for 10 years	Annual Annual
15	N/A	N/A	Have rivers been recommended as wild and scenic, and what is their status?	Status of Record of Decision/Legislative EIS	Recommend = yes	Annual
16	N/A	N/A	Has wilderness character been protected?	% of land in primitive and semiprimitive Recreation Opportunity Spectrum classes, trail use data Ecosystem plots	Baseline	Annual
5-6	N/A	N/A	Has Natural Area wilderness study area been recommended for release?	Status of Record of Decision/Legislative EIS	Recommend = yes	Annual
18	16-17	Lands Standards & Guidelines	Have land purchases and exchanges met the objectives established in the Forest Plan?	Itemized by map what has been gained and what has been exchanged Miles of landlines maintained	$\geq$ Itemized list in objectives Average 7-year cycle.	Annual

EIS – Environmental Impact Statement MM – Meaningful Measures N/A – not applicable

Table 5.1 (cont.)

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
14	13	AC-1, AC-2	Is the access policy having the desired effect of protecting the resources?	Photopoints at areas of resource concern	Improving site conditions; i.e., less bare soil, less disturbed vegetation, more vegetation	Annual
6-7	N/A	N/A	Are aquatic and terrestrial ecosystems being impaired by acid deposition?	Change in water chemistry regarding acid neutralization	No significant decline in neutralization capacity	5-Year Sampling
6-7	N/A	WL-21	Which water bodies were fertilized?	Report which water bodies were fertilized	Lakes itemized in standards and guidelines	Annual
5	N/A	VG-33	How much of each "special forest product" did we give permits to be collected and in what locations?	Quantity of each type, ranger district and compartment	Baseline	Annual
5	N/A	VG-29	How much timber was offered for sale?	MCF of timber offered annually by type, product, and forest	Not to exceed 103 MMCF in 10 years	Annual
6-9	N/A	FI-7, FI-8	How many miles of firelines were plowed for prescribed fire and wildfires? How many miles were restored?	Miles of plowed firelines for each purpose Miles of plowed firelines restored	Decreasing trend Increasing trend	Annual Annual
N/A	N/A	LA-8 through LA-15	Are special-use permits in compliance and if not, what actins are taken?	# cases of noncompliance actions taken	Evaluation of actions taken	Annual
7, 15	N/A	WA-1 through WA-7	Is water quality being maintained?	Fecal coliform—swim sites; drinking water—recreation areas & admin. sites; chemistry—State well sites	Within State water quality criteria	Annual
6	N/A	WA-8, WA-9	Is air quality being maintained?	Particulates Ozone	Within State air quality standards	Annual
6	N/A	N/A	What are the effects of cattle grazing on vegetation?	Biotic index along a transect, include a transect across fence lines	No significant change in vegetation over time	5-Year Report
5	N/A	N/A	How many miles of roads have been converted to another use or otherwise closed?	Miles of roads closed and deleted in transportation inventory system updates	2-3% of long-term goal closed annually	5-Year Report

MCF – thousand cubic feet MMCF Million cubic feet N/A – not applicable

Table 5.1 (cont.)

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
6	N/A	8.1-3, 8.2-3	What is the size and distribution of openings in sand pine?	Size of opening	Not to exceed 160 acres Increasing trend in size	Annual
6, 8-10	8	RCW EIS Standards & Guidelines	Are we maintaining RCW Populations on the national forests in Florida?	# of effective groups; # active clusters, compartment group survey	Increasing trend	Annual
6, 8-9	9	VG-27, 8.1-6, 8.2-5, 8.2-6	How many acres are suitable for scrub-jay?	# acres in 3-15 year age class in sand pine, occupied stands	45,000 tp 55,000 acres	Annual
			What are the population trends of scrub-jay? How is management affecting scrub-jay?	Scrub-jay population demographics, reproduction, dispersion	Suitable to increasing trend	Annual
6-10, 18	3-9	VG-27, WL-1 through WL-13	Are we maintaining viable populations of PETS animal species and habitats to support them?	Number of PETS animals or acres of suitable habitat	Populations at least at baseline levels, any increase acceptable. Monitoring for species with a low viability ranking due to lack of information will be designed to provide high to moderate reliability/precision results for needed information.	Annual
6-10, 18	3-7	VG-4, VG-19, VG-22, VG-23, VG-37, VG-38	Are we maintaining viable populations of PETS animal species and habitats to support them?	Locations and numbers of PETS plant populations	Populations at least at baseline levels or increasing. Monitoring for species with a low viability ranking due to lack of information will be designed to provide high to moderate reliability/precision results for needed information.	Annual
6-10, 18	3-9, 18-21	N/A	Is the health of natural forest communities being maintained or improved?	Management Indicators (see Tables 5.2 and 5.3)	Baseline	5-Years
17	15	Heritage Resources Standards & Guidelines	Are heritage resource sites being evaluated and protected?	# sites evaluated Annual report on protection efforts	$\geq$ 5 evaluations per year	Annual

RCW – red cockaded woodpecker EIS Environmental Impact Statement PETS – proposed, endangered, threatened, or sensitive SMS – Scenery Management System

Table 5.1 (cont.)

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
19	10		Are the scenic resources being protected, enhanced, and, where necessary, restored?	Implementation of the SMS and management of scenery according to recommendations of the SMS	More than or equal to 90% of all SMS critical/sensitive scenic corridors or viewsheds retain their scenic quality.	Annual
6, 8-10	6	VG-9 through VG-13, VG-17, VG-21	Is the group selection method producing the anticipated desired conditions in the longleaf pine ecosystem and what are the effects of group selection harvest in longleaf pine?	Tree stem diameter and frequency, frequency of seed crops, longleaf pine regeneration establishment and survival, growth and development of seedlings, pine midstory development and distribution, costs and returns of implementation of harvesting, costs and effects of burning within harvest units, plant species frequency and distribution, PETS species population trends/habitat conditions, MIS plant/animal population trends/habitat conditions.	Monitoring will be designed to allow comparison of effects to desired community conditions, MIS and PETS population trends/habitat conditions between areas treated with group selection vs. areas not treated. Researchers will be involved in designing the monitoring scheme along with appropriate statistical analysis and needed trigger points for changing management	5-Years
6, 8-9	18	N/A	Is the irregular shelterwood method producing the anticipated desired conditions in the slash pine forest?	Growth and development of seedlings, costs and returns of implementation of harvesting, costs and effects of burning within harvest units, plant species frequency and distribution, PETS species effects/population trends	Baseline	5-Years
6, 8-9	20	VG-40	Have old-growth stands been designated in each community type?	Acres of old growth by community type designated in CISC	Within 45-55% of acres identified in objective 20 in 5 years	5-Years
6-9	21	N/A	What are the habitat conditions of the major habitat associations?	Acres of each habitat association by major forest type age class	Within 45-55% of acres identified in objective 21 in 5 years	5-Years

PETS – proposed, endangered, threatened, or sensitive MIS – Management indicator species N/A – not applicable NF – National Forests

CISC – Continuous Inventory of Stand Conditions

Table 5.1 (cont.)

Goals	Objectives	Standards & Guidelines	Question	Item to Measure	Acceptable Range	Report Frequency
6, 8-10	8	WL-1	What are the effects of the reduced foraging standards on the Apalachicola NF?	Cluster activity status, group size, nesting success, eggs laid per active group, chicks reaching banding age, and number fledged per active group	Decline in any variable for 3 consecutive years, initiate section 7 consolidation	Annual
1-19	1-21	All	Did we do what we said we would do?	Decision documents and field review of implementation	All projects are documented and implemented in accordance with Forest Plan directions	Annual

Table 5.2

Management Indicators

Community	Community Indicators	Indicator Species
Bog, Seepage Slope, Depresion Marsh, and Wet Prairie/Savannahs	Lack of woody encroachment Dominance of graminolds/forbs Acres and frequency of burning Acres of type Population trends of indicator species	Harper's Beauty Florida Skullcap Wiregrass Toothache Grass Florida Dropseed Godfrey's Butterwort
Sandhill, Scrubby Flatwoods, Xeric Hammock, Upland Hardwood Forest, and Slope Forest	Acres and size classes of longleaf pine forest on well drained soils Number and diameter of snags Acres and frequency of burning Acres by age class and forest type Population trends of indicator species	Red-cockaded Woodpecker Bobwhite Quail Southeastern Kestrel Wiregrass Pineywoods Dropseed Scrub Buckwheat Sand Live Oak
Mesic Flatwoods and Wet Flatwoods	Acres of longleaf, slash, and pond pine forest on poorly drained soils Number and diameter of snags Acres and frequency of burning Acres by age class and forest type Population trends of indicator species	Red-cockaded Woodpecker Bobwhite Quail White Birds-in-a-Nest Wiregrass Curtiss Dropseed Florida Dropseed
Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Strand Swamp, Basin Swamp, and Dome Swamp	Acres and age class by forest types Number and diameter of snags Large trees $\geq$ 20 inches Population trends of indicator species	Pileated Woodpecker Prothonotary Warbler Bald Eagle Godfrey's Butterwort Xyris stricta
Scrub	Acres of sand pine and scrub oak forest types Acres by seral stage Average patch size Number and diameter of snags Distribution of bare ground Population trends of indicator species	Sand Skink Scrub Jay Florida Bonamia Small Lewton's Milkwort Scrub Buckwheat
Aquatic (Lakes/Ponds)	Dissolved oxygen, pH Aquatic vegetation in balance Large patch/nest trees/snags Population trends of indicator species	Bald Eagle Largemouth Bass
Generalists	Population trends of indicator species	Florid Black Bear White-tailed Deer Wild Turkey

Table 5.3

Management Indicators Species

Species	Community	Monitoring Strategy
Animals		
Bald Eagle	Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Strand Swamp, Basin Swamp, Dome Swamp, and Aquatic (Lakes/Ponds)	Nest monitoring via aircraft, number of active nests, number of chicks, number of fledglings
Bobwhite Quail	Sandhill, Scrubby Flatwoods, Mesic Flatwoods, and Wet Flatwoods	Call-counted routes, co-op stations with Florida Game and Fresh Water Fish Commission
Florida Black Bear	Generalists	Track counts, observation records
Florida Scrub-Jay	Scrub	Occupied stands, trapping and banding birds, number fledged, dispersal, demographics
Largemouth Bass	Aquatic (Lake/Ponds)	Shocking samples, lbs. per acre in lakes and borrow pits
Pileated Woodpecker	Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Strand Swamp, Basin Swamp, and Dome Swamp	Breeding Bird Survey call routes, R8 landbird routes
Prothonotary Warbler	Bottland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Strand Swamp, Basin Swamp, and Dome Swamp	Breeding Bird Survey call routes, R8 landbird routes
Red-cockaded Woodpecker	Sandhill, Scrubby Flatwoods, Mesic Flatwoods, and Wet Flatwoods	Nest checks for reproduction, banding, translocation, colony monitoring (RCW EIS Guidelines)
Sand Skink	Scrub	Cover boards for presence, presence of tracks
Southeastern Kestrel	Sandhill and Scrubby Flatwoods	Nest box occupancy
White-tailed Deer	Generalists	Track counts, harvest records
Wild Turkey	Generalists	Bait stations, harvest records
Plants		
Curtiss Dropseed	Mesic Flatwoods and Wet Flatwoods	Establish plots in areas of concern to monitor change over time
Florida Bonamia	Scrub	Permanent plots placed in known populations
Florida Dropseed	Bog, Seepage Slope, Depression Marsh, and Wet Prairie/Savannahs	Establish plots in areas of concern to monitor change over time
Florida Skullcap	Bog, Seepage Slope, Depression Marsh, Wet Prairie/Savannahs	Permanent plots placed in known populations

RCW – Red-cockaded Woodpecker EIS – Environmental Impact Statement

Table 5.3 (cont.)

Species	Community	Monitoring Strategy
Godfrey's Butterwort	Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall , Strand Swamp, Basin Swamp, and Dome Swamp, Bog, Seepage Slope,Depression Marsh, and Wet Prairie/Savannahs	Permanent plots placed in known populations
Harper's Beauty	Bog, Seepage Slope,Depression Marsh, and Wet Prairie/Savannahs	Permanent plots placed in known populations
Pineywoods Dropseed	Sandhill and Scrubby Flatwoods	Establish plots in areas of concern to monitor change over time
Sand Live Oak	Sandhill, Xeric Hammock, Upland Hardwood Forest, and Slope Forest	Permanent plots in oak domes in pine islands
Scrub Buckwheat	Sandhill, Scrubby Flatwoods, and Scrub	Permanent plots placed in known populations
Small Lewton's Milkwort	Scrub	Permanent plots placed in known populations
Toothache Grass	Bog, Seepage Slope, Depression Marsh, and Wet Prairie/Savannahs	Establish plots in areas of concern to monitor change over time
White Birds-in-a-Nest	Maesic Flatwoods and Wet Flatwoods	Permanent plots placed in known populations
Wiregrass	Bog, Seepage Slope, Depression Marsh, Wet Prairie/Savannahs, Sandhill, Scrubby Flatwoods, Mesic Flatwoods, and Wet Flatwoods	Establish plots in areas of concern to monitor change over time
Xyris stricta	Bottomland Forest, Floodplain Swamp, Hydric Hammock, Baygall, Strand Swamp, Basin Swamp, and Dome Swamp	Establish plots in areas of concern to monitor change over time

Research Needs

A key element in adaptive management is research. The Forest Service depends on research to question and refine current practices and to discover new ways to manage. Research provides a method to monitor and validate assumptions made in the Forest Plan.

There is a high priority need for scrub-jay research. Recently, there has been a significant decline in scrub-jay populations on Kennedy Space Center. This decline may involve other scrub-jay populations on the Atlantic coast of Florida. This situation, and a continual decline in habitat quantity and quality on private lands, increases the importance of the Ocala NF to the survival and recovery of this species. High priority will be given to design and fund a study to investigate dispersal, reproduction, mortality, and survival of scrub-jays on the Ocala NF. This will be designed in cooperation with Forest Service researchers, U.S. Fish and Wildlife Service, and other partners.

In addition to the specific need for scrub-jay research, four broad questions emerged as priority areas for research.

1. What are the effects of uneven-aged management of longleaf and slash pine on the biodiversity of natural communities?

2. What are the effects of motor vehicle use on national forest resources, and how best can recreational use of motor vehicles be balanced against resource sustainability?

3. What are the habitat needs of poorly understood PETS species, and how are management practices affecting PETS habitat?

4. How are human attitudes, beliefs, and behaviors related to forest landscapes, and how should these sociological factors be addressed?

Plan Implementation

This Forest Plan is implemented through a series of project-level decisions based on appropriate site-specific environmental analysis and disclosure. It does not contain a commitment to select any specific project. Instead, it provides a framework of goals, objectives, and desired future conditions to guide project proposals. Projects are proposed to solve resource management problems, supply goods, and provide services to the public. The project area is assessed to determine the desired condition in contrast to the existing condition and the opportunities in the area. These projects are analyzed to determine possible alternative solutions, and after public involvement, the responsible official makes the decision.

In addition to this Forest Plan direction, projects are implemented through direction found in the directive system (Forest Service manuals and handbooks), annual program budget, and other implementation guides that are not part of the decisions made in the Forest Plan, but provide specifics on how to implement projects. Examples of implementation guides are:

- Genetics Resource Management Plan
- Capital Investment Program
- Forest and Public Lands Highway Program
- Intermodal Surface Transportation Efficiency Act Program
- Landownership Adjustment Plan and Map
- Fire Management Action Plan
- Research Natural Areas Establishment Records
- Threatened and Endangered Species Recovery Plans

- Memoranda of Understanding

To assist in Forest Plan implementation, Appendix D shows landtype association maps, and Appendix F gives a summary of allocations and displays probability outputs for the planning period.

Budget Proposals

This Forest Plan provides the basis for developing multiyear program budget proposals. Funds are allocated annually based on the program budget proposals and congressional intention. Depending on availability of funds, outputs and activities in any given year may be significantly different from planned or proposed. The average annual budget proposal to fully implement direction in this Forest Plan is displayed in Appendix F.

Amendments and Revisions

This Forest Plan can be amended as necessary to ensure that it remains a viable, flexible document for managing the national forests in Florida.

This Forest Plan will be revised on a 10-year cycle or at least every 15 years. It also may be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Forest Plan have changed significantly. A 5-year review will be conducted to determine whether conditions or demands have changed significantly.

GLOSSARY

Acronyms

A/E - Assessment/Evaluation
ADA - Americans with Disabilities Act
ARPA - Archeological Resources Protection Act
ASQ - allowable sale quantity

BLM - Bureau of Land Management
BMP - Best Management Practice

CEQ - Council on Environmental Quality
CFR - Code of Federal Regulations
CISC - Continuous Inventory of Stand Conditions

DBH - diameter at breast height
DEIS - Draft Environmental Impact Statement
DEP - Department of Environmental Protection
DFC - desired future condition

EA - Environmental Assessment.
EIS - Environmental Impact Statement

FEIS - Final Environmental Impact Statement
FNST - Florida National Scenic Trail
FSH - Forest Service Handbook
FSM - Forest Service Manual

GIS - Geographic Information System

HMA - habitat management area

IC - incident commander
ID - Interdisciplinary
IMPLAN - Impact for Planning Model

LRMP - Land and Resource Management Plan
LTA - landtype association

M&E - monitoring and evaluation
MA - management area
MCF - thousand cubic feet
MIL - management intensity level
MIS - management indicator species
MM - Meaningful Measures
MMCF - million cubic feet
MMRVD - million recreation visitor-day
MWFUD - thousand wildlife and fish user-day

NAGPRA - Native American Graves Protection and Repatriation Act
NEPA - National Environmental Policy Act
NF - National Forest
NFMA - National Forest Management Act

PAO - Public Affairs Office
PETS - proposed, endangered, threatened, or sensitive

RCW - red-cockaded woodpecker
RD - ranger district
RIM - Recreation Information Management
RNA - research natural area
RO - Regional Office
ROS - Recreation Opportunity Spectrum
RVD - recreation visitor-day

SHPO - State Historic Preservation Office
SMS - Scenery Management System
SO - Supervisor's Office
STARS - Sale Tracking and Reporting System

T&E - threatened and endangered
TIS - transportation inventory system

USDA - U.S. Department of Agriculture
USDI - U.S. Department of Interior
USFWS - U.S. Fish and Wildlife Service

VQO - visual quality objective

WFUD - wildlife and fish user-day
WO - Washington Office
WSA - wilderness study area

Definitions

A

active cluster. A specific RCW cluster that is occupied in a given survey year. A cluster is determined to be active when there are nesting or roosting RCWs present, or when one or more cavity trees exhibit fresh pitch wells and resin flow, reddish under-bark appearance, and/or fresh chipping is present at the cavity entrance.

adaptive management. The process of implementing policy decisions as scientifically driven management experiments that test predictions and assumptions in management plans, and using the resulting information to improve the plans.

age class. One of the intervals into which the age range of trees are divided for classification or use.

air quality standard. The prescribed level of pollutants in the air that cannot be exceeded legally during a specified time in a specified geographical area.

allocation. Assignment of management prescriptions to particular land areas to achieve the goals and objectives of an alternative.

allowable sale quantity (ASQ). The maximum quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a period specified by the Forest Plan. This quantity is usually expressed on an annual basis as the ``average annual allowable sale quantity."

Analysis of the Management Situation. A study indicating the ability of the planning area to supply goods and services in response to society's demand for those goods and services.

appropriate suppression response. The range of options for managing a wildland fire. In all lands—except wilderness—this includes all options from limited monitoring to immediate, aggressive suppression. In wilderness, the appropriate suppression response may also include managing the fire to gain resource benefits and incurring additional cost to maximize those benefits.

ARPA permit. A special-use permit based on the Archeological Resources Protection Act (ARPA) that allows archeological research by qualified professional archeologists. These permits must be approved by the Forest Supervisor.

B

background. Visible landscape beyond 5 miles. Individual trees in the background are not visible but are blended into the total fabric of the stand.

basal area. Cross-sectional area (square feet at 4½ feet above ground level) of trees occupying an acre of land. Basal area is used to measure the density of a stand of trees.

best management practice (BMP). A practice, or a combination of practices, that is determined to be the most effective and practical means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

biodiversity. The variety of life in an area, including the variety of gene pools, species, plant and animal communities, ecosystems, and the processes through which individual organisms interact with one another and their environments.

BMP. *See* best management practice.

borrow. Excavation (as in borrow pit) of soil material for use as embankment, such as in road construction.

C

canopy. The more or less continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody growth.

cavity. A hole or hollow place in a tree.

CEQ. *See* Council on Environmental Quality.

CISC. *See* Continuous Inventory of Stand Conditions.

Class I area. An area designated for the most stringent protection from degradation of air quality.

clearcutting. A method of regenerating an even-aged stand in which a new age class develops in a fully exposed microclimate after removal, in a single cutting, of all trees in the previous stand. Regeneration is from natural seeding, direct seeding, planted seedlings, and/or advance reproduction. Harvesting may be done in groups or patches (group or patch clearcutting), or in strips (strip clearcutting). In the clearcutting system, the management unit or stand in which regeneration, growth, and yield are regulated consists of the individual clearcut stand.

closed road. A road that is permanently or periodically closed to motorized vehicle travel. Public vehicular traffic is restricted except when operating under a permit, or a contract, or in case of an emergency.

cluster. A site in which a group of RCWs nest or roost. It includes the total number and areas of cavity trees plus at least a 200-foot zone around them.

confidentiality (of site location information). The public is prevented from knowing where archeological and historical sites are located to prevent unlawful looting and vandalism. Site location information is available to Forest Service personnel for management purposes, and they are bound by law not to share that information with the public.

consumptive use. A use of resources that reduces the supply.

Continuous Inventory of Stand Conditions (CISC). A system that continuously reflects an up-to-date description of timber stands. It tells what and when actions are planned for stands and gives some information about actions that have taken place. CISC is also the name of the data base management computer system used for the storage and retrieval of CISC data.

corridor. A strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries. Also, the strip of land within the boundary of wild and scenic rivers.

Council on Environmental Quality (CEQ). An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

cross-country travel. Land travel through the forest that does not occur on an open, numbered road, a designated trail, or an unmarked travelway.

crown. The part of a tree bearing live branches and foliage.

custodial management. Management that provides for protection of natural resources and ensures public safety, including maintenance of the land, resources, and infrastructure. Activities may include fire suppression, integrated pest management, law enforcement, road and bridge maintenance, and other activities needed to protect natural resources and public safety.

D

DBH. *See* diameter at breast height.

DEIS. *See* Draft Environmental Impact Statement.

designated trail. A trail wholly or partly within or adjacent to and serving a part of the National Forest System that has been included in the forest development trail system plan.

Designated Trail

desired future condition (DFC). An expression of resource goals that have been set for a unit of land. It is written as a narrative description of the landscape as it will appear when the goals set for it have been achieved. It includes a description of physical and biological processes, the environmental setting, and the human experience.

developed recreation. Recreation that requires facilities and results in concentrated use of an area, for example, campgrounds and picnic areas.

DFC. *See* desired future condition.

diameter at breast height (DBH). A tree's diameter measured approximately 4 feet, 6 inches above the ground.

dispersed recreation. Recreation outside of developed recreational facilities, for example, hiking and driving for pleasure.

disturbance. A discrete event, either natural or human induced, that causes a change in the existing condition of an ecological system.

diverse patch size structure. A forest structure that contains a wide range of patch sizes from ¼ to 80 acres across the landscape.

diversity. The distribution and abundance of different plant and animal communities and species within an area.

D(max). The maximum diameter set when determining the target stand diameter distributions for selection management.

Draft Environmental Impact Statement (DEIS). A draft version of the environmental impact statement that must follow the requirements of NEPA, CEQ guidelines and directives of the agency responsible for the project proposal.

E

EA. *See* Environmental Assessment.

ecological classification system. A hierarchical system used to help organize and coordinate the classification of ecological types and ecological units and to make comparisons. Classification is ecologically based and integrates existing resource data such as climate, topography, geology, soil, hydrology, and vegetation. The system includes many levels (from the top-down approach): domain, division, province, section, subsection, landtype, landtype association, and landtype phase, and site.

ecosystem. An association of interactive organisms and their environment perceived as a single entity.

EIS. *See* Environmental Impact Statement.

endangered species. Any species of animal or plant that is in danger of extinction, as identified by the Secretary of the Interior as endangered in accordance with the Endangered Species Act of 1973.

Endangered Species Act of 1973. A law requiring Federal agencies to conserve endangered and threatened species. It strictly prohibits any person from harassing or harming any listed species.

environmental analysis. An analysis of alternative actions and their predictable short- and long-term environmental effects, which include physical, biological, and socioeconomic factors and their interactions.

Environmental Assessment (EA). An analysis of all actions and their predictable short- and long-term environmental effects, which include physical, biological, economic, and social factors and their interactions; a concise public document required by NEPA regulations.

Environmental Impact Statement (EIS). A formal document that must follow the requirements of NEPA, CEQ guidelines, and directives of the agency responsible for the project proposal.

even-aged stand. A stand of trees containing a singe age class in which the range of tree ages is usually less than 20 percent of rotation.

even-aged structure. A stand structure in which trees of essentially the same age grow together. Clearcut, shelterwood, and seed-tree cutting methods produce even-aged stand structure.

F

Federal Register. The designated document that notifies the public of Federal actions and includes items such as Notice of Intent, calls for public involvement, etc. This document also publishes the regulations needed to implement those Federal actions.

Final Environmental Impact Statement (FEIS). The document that follows a Draft Environmental Impact Statement and contains analysis regarding forest programs that will have a significant impact on the environment.

fireline. A linear barrier used to stop prescribed burns and wildfires by the removal or treatment of fuels. Firelines may include the use of mechanically plowed lines, water, retardants, streams, natural barriers, etc.

floodplain. Lowland and flat areas joining inland and coastal waters; the minimum area included that has a 1 percent or greater chance of flooding in any given year, commonly called the 100-year floodplain.

Florida National Scenic Trail (FNST). A long-distance trail providing both recreation and protection of nationally significant historic, natural, or cultural qualities. FNST eventually will extend 1,300 miles across Florida, linking greenways in wild and rural parts of the state.

forest collector road. Serves smaller land areas than forest arterial roads and is usually connected to a forest arterial road or public highway.

Forest Service Handbook (FSH). A handbook that provides detailed instructions for proceeding with specialized phases of programs or activities for Forest Service use.

Forest Service Manual (FSM). Agency manuals that provide direction for Forest Service activities.

forest system road. A road that is part of the forest development transportation system and that will be constructed and/or maintained to a specified level.

fuels. Living or dead plant material that will burn when weather conditions are correct.

G

general gun hunting season. The hunting season open for most game animals to be taken with a variety of weapons and is distinctive from archery or muzzle loading seasons. This season is usually open from mid-November to early January and is set annually by the Florida Game and Fresh Water Fish Commission.

group selection. The cutting method that describes the silvicultural system in which trees are removed periodically in small groups resulting in openings that do not exceed two acres in size. This leads to the formation of a large uneven-aged stand in the form of a mosaic of age class groups.

H

habitat capability. The estimated ability of an area, given existing or predicted habitat condition, to support a wildlife, fish, or plant population. It is stated in terms of potential population numbers.

habitat management area (HMA). The desired future demographic configuration of an RCW population. It is an area dedicated to RCW management.

heritage resource. A site, structure, object, or group of sites or structures used or created by people in the past.

I

ID. *See* Interdisciplinary Team.

inactive cluster. A cluster site where there are no RCWs present and when none of the cavity trees exhibit active resin wells. Active resin wells are noted by recent pecking and clear, fresh resin flows from the well.

inholdings. Lands within the proclaimed boundaries of national forests that are owned by some other agency, organization, or individual.

integrated pest management (IPM). A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resources values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and the ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

Interdisciplinary (ID) Team. A group of individuals with skills from different resources assembled to identify and resolve issues and problems.

intermediate harvest. Any removal of trees from an even-aged stand between the time of its formation and the regeneration cutting.

intermittent pond. A pond that contains water a portion of the year under typical climatic conditions.

IPM. *See* integrated pest management.

irregular shelterwood harvest. A harvest designed to established regeneration under the protection of an overstory of seed trees. A portion of the seed trees remain indefinitely, leaving a two-aged stand.

K

key area. Areas of land that supplement specific habitat requirements (food, water, or cover).

K-V funds. Funds collected from timber sales under the Knutson-Vanderberg Act of 1930 to be used for reforestation, timber stand improvement, and to protect and improve the future productivity of renewable resources on timber sale areas.

L

landscape. An area composed of interacting ecosystems that are repeated because of geology, landform, soils, climate, biota, and human influences throughout the area. Landscapes are generally of a size, shape, and pattern that are determined by interacting ecosystems.

landtype. An intermediate level in the ecological classification system based on landform, natural vegetative communities, and soils.

landtype association (LTA). A group of landtypes. Landtypes in the association are sufficiently homogeneous to be considered as a whole for modeling the future outputs and effects of planned management activities. Landtype associations may not follow watershed boundaries and are defined on the basis of general similarities in geology, climate, landform, and vegetation.

M

management area (MA). An area with similar management objectives and a common management prescription.

management direction. A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

management indicator species (MIS). A particular type of plant or animal whose presence in a certain location or situation is a sign or symptom that particular environmental conditions are also present.

management intensity level (MIL). MIL concept varies the level of management and protection to the survival needs of different RCW populations depending on their size and whether they are increasing or decreasing. The concept is similar to the way hospitals treat patients based on the severity of their illness or injury: emergency, intensive care, general care, and outpatient services. It is based on research that indicates small RCW populations composed of widely distributed groups need more protection and different management than larger populations made up of more closely spaced groups.

marked, numbered road. A numbered or system road that is marked on the ground.

Marked Numbered Road

maximum modification. A visual quality objective meaning human activity may dominate the characteristic landscape.

midstory. A middle canopy layer of smaller trees that occurs under an overstory of trees. These trees are usually of a different species than the large trees and can grow in almost total shade.

MIL. *See* management intensity level.

MIS. *See* management indicator species.

mitigation. Actions taken to avoid, reduce, eliminate, or rectify the impact of a management practice.

modification. A visual quality objective meaning human activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture.

multiple use. The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in the use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

N

NAGPRA. *See* Native American Graves Protection and Repatriation Act.

National Environmental Policy Act (NEPA) of 1969. An act to declare a national policy that will encourage productive and enjoyable harmony between humankind and the environment, to promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, to enrich the understanding of the ecological systems and natural resources important to the nation, and to establish a Council of Environmental Quality.

National Forest Management Act (NFMA) of 1976. Act passed as an amendment to the Forest and Rangeland Renewable Planning Act, requiring the preparation of Regional guides and forest plans and the preparation of regulations to guide them.

National Forest System. All national forest lands reserved or withdrawn from the public domain of the United States; all national forests lands acquired through purchase, exchange, donation, or other means; National Grasslands and land utilization projects administered under Title III of the Bankhead-Jones Farm Tenant Act (50 Stat. 525, 7 U.S.C. 1010-1012), and other lands, waters, or interests which are administered by the Forest Service or are designated for administration through the Forest Service as a part of the system.

National Forest Trail System. Trails that are recognized, maintained, and recorded in the TIS data base by the Forest Service.

National Wild and Scenic Rivers System. Rivers with outstanding scenic, recreation, geologic, fish and wildlife, historic, cultural, or other similar values designated by Congress under the Wild and Scenic Rivers Act for preservation of their free-flowing condition.

Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. This act, effective only on Federal or tribal lands, concerns repatriation of human remains, funerary objects, sacred objects, and items of cultural patrimony in existing collections.

Consultation is required before excavations that may effect these or after the inadvertent discovery of these following the data of enactment.

native vegetation. Indigenous species that is normally found as part of a particular ecosystem; a species that was present in a defined area prior to European settlement.

NEPA. *See* National Environmental Policy Act.

NFMA. *See* National Forest Management Act.

numbered road. A road wholly or partly within or adjacent to and serving part of the National Forest System that has been included in the forest development road system plan. Numbered roads are inventoried by traffic service level A through D and are maintained on the TIS data base.

O

off-highway vehicle (OHV). Any vehicle capable of traveling overland where no road exists.

off-site. A term referring to species not normally found on a certain site under natural conditions. An off site species may have been placed on the site or may have encroached on the site because of a change in natural conditions of the site.

old-growth forest. Ecosystems distinguished by old trees and related structural attributes. Specific attributes vary according to forest type, climate, site conditions, and disturbance regime.

on-site. A term referring to species normally found on a site under natural conditions.

overstory removal. The final stage of harvest in the irregular shelterwood, shelterwood, or seed-tree methods where all or a portion of the overstory trees are removed to allow the understory to grow.

P

partial retention. A visual quality objective that in general means human activities may be evident but must remain subordinate to the characteristic landscape.

partnership. A mutually beneficial and desired formal agreement entered into between the Forest Service and another or others to accomplish mutually agreed upon objectives consistent with the agency's mission and serving the public interest. Relationships based on special-use permits, licenses, or contracts are not, in and of themselves, considered partnerships.

PETS. An acronym for proposed, endangered, threatened, or sensitive plant or animal species for listing pursuant to the Endangered Species Act.

prescribed fire. Fire ignited by the Forest Service, or cooperating personnel, that is burning under conditions specified in an approved plan to dispose of fuels, control unwanted vegetation, stimulate growth of desired vegetation, change successional stages, etc., to meet wildlife, recreation, wilderness, watershed, timber management, or ecological objectives.

prescription. A set of practices selected and scheduled for application on a specific area to attain multiple use and other goals and objectives.

preservation. A visual quality objective that allows for natural changes only.

primary zone. A component of the special management zone that has significant timber

harvesting restrictions and varies in width from 35 to 200 feet.

primitive class. A classification of the Recreation Opportunity Spectrum characterized by an essentially unmodified environment, where trails may be present but structures are rare, and where probability of isolation from the sights and sounds of humans is extremely high.

protection (of heritage resources). Save or shield from loss, destruction, or injury for future appreciation and use.

public domain land. Original holdings of the United States that were never granted or conveyed to other jurisdictions or required by exchange for other public domain lands.

R

range allotment. The area designated for use by a prescribed number of livestock for a prescribed period of time. Though an entire ranger district may be divided into allotments, all land will not be grazed, because other uses, such as recreation or tree plantings, may be more important at a given time.

ranger district (RD). Administrative subdivisions of the forest that are supervised by a District Ranger, who reports to the Forest Supervisor.

rare. Plant or animal species that are uncommon in a specific area. All endangered, threatened, and sensitive species can be considered rare, but the converse is not true.

RARE II (Roadless Area Review and Evaluation II). The Forest Service's assessment of potential of roadless and undeveloped land areas within the national forest for potential wilderness areas.

RCW. *See* red-cockaded woodpecker.

Record of Decision (ROD). A document separate from, but associated with, an environmental impact statement that publicly and officially discloses the responsible official's decision on the alternative assessed in the environmental impact statement chosen to be implemented.

Recreation Opportunity Spectrum (ROS). A land classification system that categorizes national forest land into six classes, each class being defined by its setting and by the probable recreation experiences and activities it affords.

recreation visitor-day (RVD). A unit of measure of recreation use reflecting any combination of people and hours in which the product is 12; for example, 1 person for 12 hours, 2 people for 6 hours, 12 people for 1 hour, etc.

recruitment cluster. A recruitment stand that has been provisioned with at least 4 artificial RCW cavities, either inserts or drilled cavities or a combination of both.

recruitment stand. A stand of trees at least 10 acres that is identified as potential nesting habitat required to meet the population goal on a compartment basis for RCWs. Recruitment stands are located between ¼ mile and ¾ mile from a cluster site. Foraging habitat is required for recruitment stands.

red-cockaded woodpecker (RCW) group. Normally a breeding pair of RCWs, plus helpers, living as a family group. Group size can vary from a mated pair to as many as nine individuals, but averages about three birds. Occasionally, group size may be reduced to a single individual (usually a male). A single bird group is usually a temporary phenomenon, with either successful mating or cluster abandonment occurring within a short period of time.

regeneration. The renewal of a tree crop, whether by natural or artificial means; also the young crop itself.

relict trees/relicts. A pine tree which is left over from the original forests that were

harvested of high-quality RCW cavity trees: presence of red-heart fungus (rot or decay) at average cavity height, 14 inches DBH or larger, high ratios of heartwood to sapwood, and large, flattopped crowns with large limbs. Most of the RCW cavity trees in use are relicts.

replacement stand. A stand of trees at least 10 acres and within ½ mile of an RCW cluster site that is identified as replacement nesting habitat for the existing cluster.

research natural area (RNA). A physical and biological unit in as near a natural condition as possible, which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features.

Resources Planning Act (RPA). The Forest and Rangeland Renewable Resources Planning Act of 1974; also refers to the national assessment and recommended program developed to fulfill the requirements of the Act.

restoration. The reestablishment of native plant cover in an area to predisturbance conditions.

retention. A visual quality objective that means human activities are not readily evident to the casual forest visitor.

right-of-way (ROW). A right of use across the lands of others. It usually does not apply to absolute purchase of ownership.

riparian areas. Areas with distinctive resource values and characteristics that are comprised of aquatic and riparian ecosystems, 100-year floodplains, wetlands, and all upland areas within a horizontal distance of approximately 100 feet from the edge of perennial water bodies.

riparian ecosystems. A transition between the aquatic ecosystem and adjacent terrestrial ecosystems identified by the presence of very poorly drained soils.

RNA. *See* research natural area.

road reconstruction. Road reconstruction falls into three categories: (1) realignment - results in a new location for existing roads or parts of a road; (2) betterment - investment that raises the traffic service level of a road or improves its safety or operating efficiency; (3) restoration - investment required to rebuild a road to its approved traffic service level.

roaded natural. A classification of the Recreation Opportunity Spectrum that characterizes a predominantly natural environment with evidence of some resource utilization.

ROD. *See* Record of Decision.

ROS. *See* Recreation Opportunity Spectrum.

ROW. *See* right-of-way.

RPA. *See* Resources Planning Act.

rural class. A Recreation Opportunity Spectrum classification for areas characterized by a substantially modified natural environment.

RVD. *See* recreation visitor-day.

S

salvage. Removal of trees that are dead, dying, or in imminent danger of being killed by injurious agents.

salvage of dead stands. Removal of all dead trees in a stand. This does not include removal of tree posing a safety hazard or the removal of trees to halt the spread of injurious agents.

savannah. A flat, almost treeless grassland.

sawtimber. Trees suitable in size and quality for producing logs that can be processed into dimension lumber.

Scenery Management System (SMS). A systematic approach for determining the

relative value and importance of scenery in a national forest. The system is to be used in the context of ecosystem management to inventory and analyze scenery in a national forests, to assist in establishment of overall resource goals and objectives, to monitor the scenic resource, and to ensure high-quality scenery for future generation.

scenic byway. A road or highway, or segment thereof, that traverses a scenic corridor of outstanding esthetic, cultural, historic, and/or interpretive forest values. Designated scenic byways will provide travelers with the opportunity to view spectacular scenery in harmony with forest management activities.

scoping. The process by which the Forest Service determines the extent of analysis necessary for an informed decision on a proposed action.

semiprimitive motorized class. A classification of the Recreation Opportunity Spectrum characterized by a predominantly unmodified natural environment of a size and location that provides good to moderate opportunity for isolation from sights and sounds of humans; use of motorized transportation is permitted.

semiprimitive nonmotorized class. A classification of the Recreation Opportunity Spectrum characterized by a predominantly unmodified natural environment of a size and location that provides opportunity for isolation from sights and sounds of humans; motorized transportation is not permitted.

sensitive species. Those species that (1) have appeared in the *Federal Register* as proposals for classification and are under consideration for official listing as endangered or threatened species, (2) are on an official State lists, or (3) are recognized by the Regional Forester to need special management to prevent the need for their placement on Federal or State lists.

seral stage. The stage of succession of a plant or animal community that is transitional. If left alone, the seral stage will give way to another plant or animal community that represents a further stage of succession.

shelterwood method. A method of establishing a new stand by gradually removing the existing trees so new seedlings or sprouts become established under the protection of the remaining trees. Normally, this is done in two separate harvests during a 5-to-10 year period.

significance (of heritage resources). A significant heritage resource meets the criteria for inclusion on the National Register of Historic Places.

silvicultural system. A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. Systems are classified according to the method of carrying out the fellings that remove the mature crop and provide for regeneration and according to the forest thereby produced.

silviculture. The art and science of controlling the establishment, composition, and growth of forests.

site preparation. Preparation of ground surface before planting or natural regeneration.

SMS. *See* Scenery Management System .

snag. A standing dead tree used by wildlife for nesting, roosting, perching, courting, and food gathering.

special management zone. An area of varying width adjacent to a watercourse in which special management precautions are necessary to protect natural resources.

special-use permit. Authorization for use and occupancy of National Forest System land.

stand. A community of trees possessing sufficient uniformity in regard to vegetation type, age class, vigor, size class, and stocking class to be distinguishable from adjacent communities.

standard. Requirement that precludes or imposes limitations on resource management practices and uses, usually for resource protection, public safety, or addressing an issue.

sustained yield. The achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest System without impairment of the productivity of the land.

system road. Any road under the jurisdiction of the Forest Service.

T

targets. Planned results to be achieved within a stated period of time.

temporary road. A road built as a temporary development and not intended to be a part of the transportation systems.

thinning. Cutting made in an immature stand, primarily designed to accelerate the annual growth of the remaining trees, but also by suitable selection to improve the average form of the remaining trees.

threatened species. Any species of plant or animal that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

titi. The common name for several small, evergreen, hardwood species of plants that grow in poorly drained, wet depressions and bayheads. The three predominate species are black titi, little leaf cyrilla, and swamp cyrilla.

tractor-plow unit. A unit composed of a tracked vehicle pulling a fire plow or a set of disks. This unit is used to construct fire control lines.

traffic service level. Description of the significant traffic characteristics and operating conditions for a road.

transportation inventory system (TIS). A data base that includes bridges, roads, and trails.

transportation/utility corridor. Surface and subsurface routes of regional significance for movement of vehicles, gas, oil, and electricity.

U

understory. Vegetation growing under a more-or-less continuous cover of branches and foliage formed by the upper portion of adjacent trees and other woody growth.

uneven-aged management. The application of a combination of actions needed to simultaneously maintain continuous high forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection. (36 CFR 219.3)

unmarked travelway. A travelway that looks like a road or trail but is not on the road or trail system and is not considered a numbered road or designated trail (this includes firelines).

Unmarked Travelway

unsuitable forestland (not suited). Forestland that is not managed for timber production because (1) the land has been withdrawn by Congress, the Secretary of Agriculture, or the Chief of the Forest Service; (2) the land is not producing or capable of producing crops of industrial wood; (3) technology is not available to prevent irreversible damage to soils, productivity, or watershed conditions; (4) there is no reasonable assurance that lands can be adequately restocked within 5 years after final harvest, based on existing technology and knowledge; (5) there is, at present, a lack of adequate information on biological responses to timber management activities; or (6) timber management is inconsistent with or not cost efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan.

urban interface. An area characterized by an intermingling of residential private land with National Forest System land.

V

vegetation management. The management of vegetation by practices such as grazing, prescribed burning, herbicide use, timber harvesting, and tree planting or removal to meet wildlife, visual, timber, special area, water, and other management objectives.

viable population. A population that has adequate numbers and dispersion of reproductive individuals to ensure the continued existence of the species population on the planning area.

viewshed. A viewshed is a portion of a landscape visible form one or more vantage points.

visual quality objective (VQO). The degrees of acceptable alteration of the characteristic landscape.

visual resource. The composite of basic terrain, geologic features, water features, vegetative patterns, and land-use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

Visual Resource Management System. A framework for planning and administering the use of forestlands in such ways that the visual effects maintain or upgrade psychological welfare. It is the planning and design of the visual aspects of multiple-use land management through inventory of the visual resource and provision of measurable standards.

W

watershed. The total area above a given point on a stream that contributes water to the flow at the point.

wetland. Areas that are inundated by surface water or groundwater with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands include swamps, bogs, marshes, and similar areas--such as mud flats, natural ponds, sloughs, potholes, river overflows, and wet meadows.

WFUD. *See* wildlife and fish user-day.

wheelchair. A device designed solely for use by a mobility-impaired person for locomotion that is suitable for use in an indoor pedestrian area.

wild and scenic river. A river or section of river designated as such by congressional action under the 1968 Wild and Scenic Rivers Act, as supplemented and

amended, or those sections of a river designated as wild, scenic, or recreational by an act of the legislature of the state or states through which it flows.

wilderness. Congressionally designated areas that are essentially unaltered and undisturbed by humans. Management in these areas preserves and protects their physical and biological characteristics.

wilderness study area. Lands possessing the basic characteristics of wilderness and designated by Congress for further wilderness study.

wildland fire. Any fire not ignited as a prescribed fire. If a wildland fire is naturally ignited in wilderness, it may in certain conditions be managed for resource benefit. All other wildland fires must be suppressed, but the full range of other suppression responses is allowable.

wildlife and fish user-day (WFUD). A unit of measure that represents one person hunting or viewing wildlife for a 12-hour period or fishing for a 4-hour period.

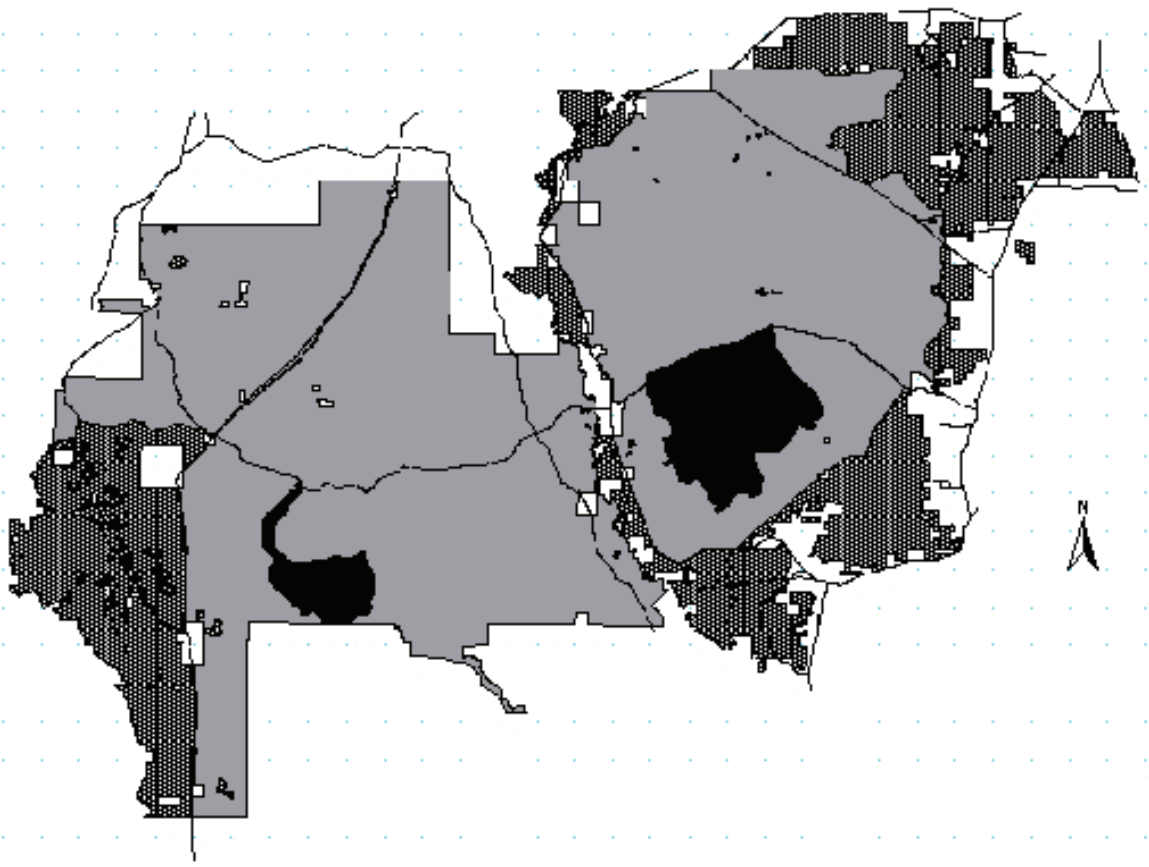
wildlife structure. A site-specific improvement of a wildlife or fish habitat.

worm grunting. Harvesting earthworms by rubbing a piece of iron on a wooden stake which vibrates the ground and drives the earthworms to the surface.

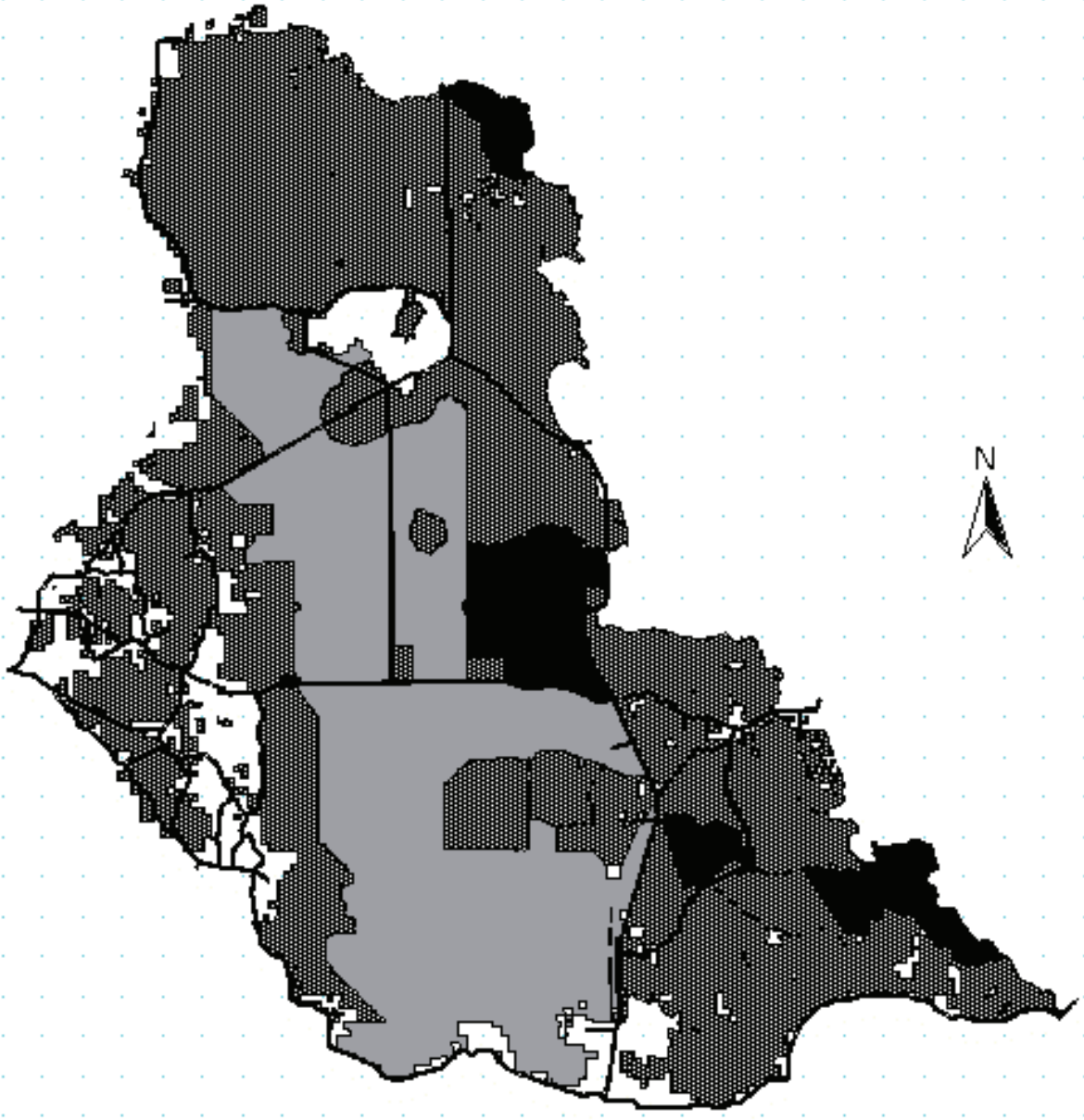
APPENDIX A

Access Map

Apalachicola National Forest



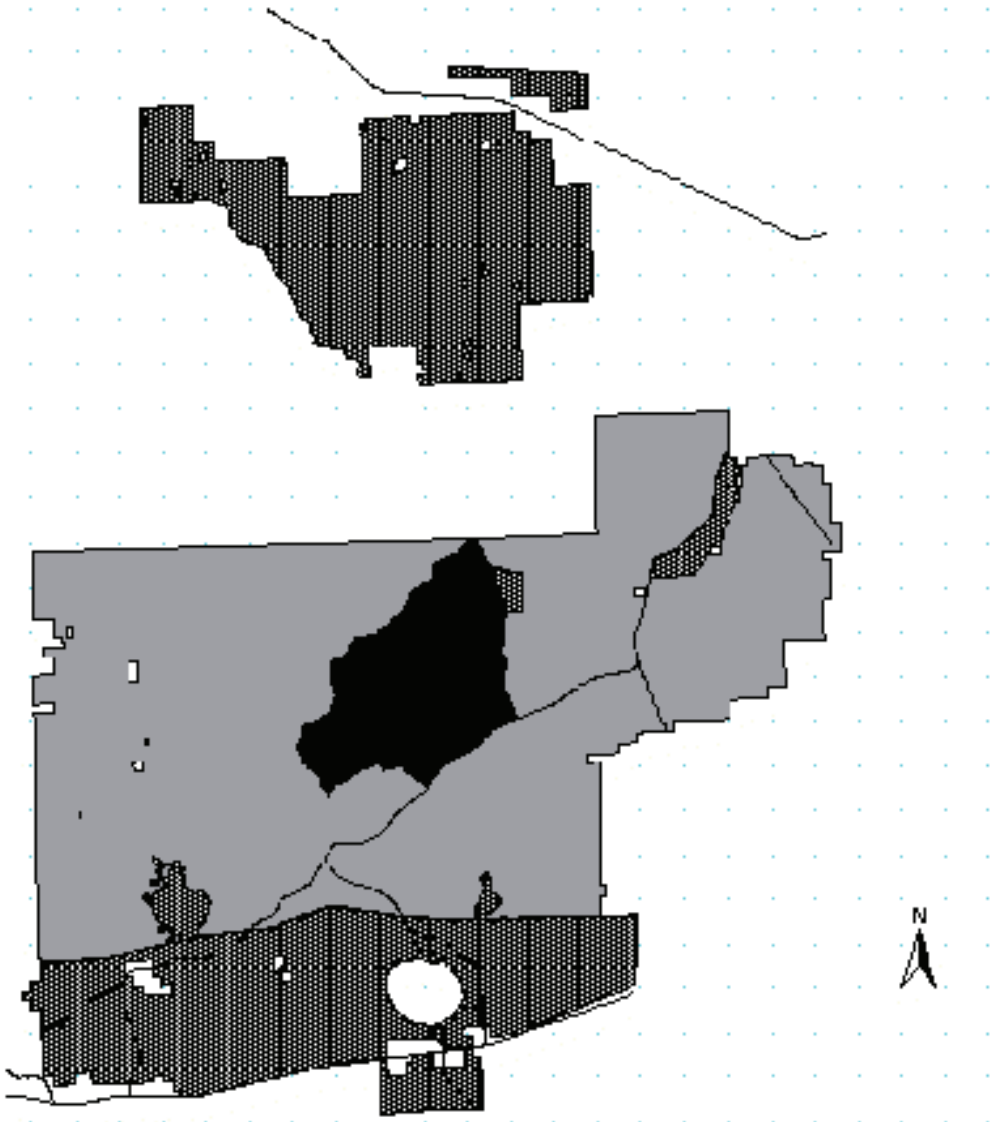
Access Map
Ocala National Forest



Wilderness - Motorized vehicles/bicycles prohibited
Motorized vehicles/bicycles restricted to open numbered roads and designated trails
Motorized vehicles/bicycles restricted to open numbered roads, designated trails, and unmarked travelways

Access Map

Osceola National Forest



Wilderness - Motorized vehicles/bicycles prohibited
Motorized vehicles restricted to open numbered roads and designated trails
Motorized vehicles/bicycles restricted to open numbered roads, designated trails, and unmarked travelways

APPENDIX B

LANDS SUITABLE FOR TIMBER PRODUCTION

36 CFR 219.14 directs that during the forest planning process, lands that are unsuitable for timber production be identified. Lands identified within the following categories are considered in stage 1 analysis as unsuitable for timber production:

1. Nonforestland.
2. Forestland withdrawn from production by an Act of Congress, the Secretary of Agriculture, or the Chief of the Forest Service.
3. Forestland not capable of producing crops of industrial wood.
4. Forestland physically unsuitable, where technology is not available to ensure timber production without irreversible resource damage to soils productivity or watershed conditions or without reasonable assurance that land can be adequately restocked within 5 years of harvest.
5. Forestland where inadequate information is available to project responses to timber management practices.

The acres on three of the national forests in Florida that are within these categories are shown in Table B.1.

Table B.1

Acres Tentatively Suitable for Timber Production

Category	Acres
Apalachicola National Forest	
Nonforestland	6,657
Withdrawn	33,662
Not Capable	0
Physically Unsuitable	10,232
Inadequate Information	8,665
Tentatively Suitable Acres	516,273
TOTAL	**575,489**
Ocala National Forest	
Nonforestland	29,603
Withdrawn	28,197
Not Capable	0
Physically Unsuitable	488
Inadequate Information	5,190
Tentatively Suitable Acres	319,884
TOTAL	**383,362**
Osceola National Forest	
Nonforestland	1,372
Withdrawn	14,041
Not Capable	0
Physically Unsuitable	3,519
Inadequate Information	15,000
Tentatively Suitable Acres	160,800
TOTAL	**194,732**

NOTE: Total tentatively suitable acres for these forests = 996,957.

In addition to lands that meet the above five categories, additional areas may be identified as not appropriate for timber production to meet objectives if (1) land is proposed for uses that preclude timber production, (2) other objectives limit timber production such that the minimum management requirements in CFR 219.27 cannot be met, or (3) lands are not cost-efficient in meeting forest objectives over the planning horizon.

These lands are subtracted from the tentatively suitable acres to provide the total suitable acres. The acres of land not appropriate for timber production are shown in Table B.2.

Table B.2

Land Classified as Suitable for Timber Production

Apalachicola National Forest	**Acres**
Tentatively Suitable Acres	516,273
T&E Species Sites	-18,261
Recreation Sites	-1,560
Nontimber Management Areas	-14,305
Special Interest Areas	-4,824
Wilderness Study Areas	-5,625
Wild & Scenic River Corridors	-10,435
Titi Retention Areas	-110,986
Streamside Management Zones	-1,349
Not Appropriate Hardwood	-80,080
TOTAL	**268,848**
Ocala National Forest	**Acres**
Tentatively Suitable Acres	319,884
T&E Species Sites	-4,239
Recreation Sites	-1,863
Nontimber Management Areas	-5,551
Special Interest Areas	-3,257
Wild & Scenic River Corridors	-1,822
Streamside Management Zones	-1,611
Scrub-Jay Management	-1,875
Not Appropriate Hardwood	-28,066
TOTAL	**271,600**
Osceola National Forest	**Acres**
Tentatively Suitable Acres	160,800
T&E Species Sites	-4,495
Recreation Sites	-279
Experimental Forest	-2,802
Nontimber Management Areas	-19,339
Special Interest Areas	-2,049
Wilderness Study Areas	-4,396
Streamside Management Zones	-368
Not Appropriate Hardwood	-34,183
TOTAL	**92,889**
GRAND TOTAL	**633,337**

T&E - threatened and endangered

APPENDIX C

INVASIVE PLANTS

The following is a list of plants known to be invasive and to disrupt native plant communities in Florida. This list is derived from work of the Florida Exotic Pest Plant Council.

Abrus precatorius (rosary pea)
Acacia auriculiformis (earleaf acacia)
Albizia julibrissin (mimosa)
Ardisia crenulata (= *A. crenata*) (coral ardisia)
Ardisia elliptica (= *A. humilis)* (shoebutton ardisia)
Asparagus densiflorus (asparagus fern)
Bischofia javanica (bischofia)
Brachiaria mutica (Para grass)
Calophyllum calaba (= *C. inophyllum*) (mast wood, Alexandrian laurel)
Cassia coluteoides (= *Senna pendula*) (climbing cassia, Christmas cassia, Christmas senna)
Casuarina equisetifolia (= *C. litorea*) (Australian pine)
Casuarina glauca (suckering Australian pine)
Cestrum diurnum (day jasmine)
Cinnamomum camphora (camphor tree)
Colocasia esculenta (taro)
Colubrina asiatica (lather leaf)
Cupaniopsis anacardioides (carrotwood)
Dioscorea bulbifera (air-potato)
Eichhornia crassipes (water hyacinth)
Eugenia uniflora (Surinam cherry)
Ficus microcarpa (= *F. nitida, = F. retusa* var. *nitida*) (laurel fig)
Hydrilla verticillata (hydrilla)
Hygrophila polysperma (green hygro)
Hymenachne amplexicaulis (West Indian marsh grass)
Imperata brasiliensis (= *I. cylindrica*) (cogon grass)
Ipomoea aquatica (water spinach)
Jasminum dichotomum (Gold Coast jasmine)
Jasminum fluminense (jasmine)
Lantana camara (lantana)
Ligustrum sinense (hedge privet)
Lonicera japonica (Japanese honeysuckle)
Lygodium japonicum (Japanese climbing fern)
Lygodium microphyllum (Old World climbing fern)
Macfadyena unguis-cati (cat's claw)
Melaleuca quinquenervia (melaleuca, broad-leaf paper bark)
Melia azedarach (Chinaberry)
Mimosa pigra (catclaw mimosa)
Nandina domestica (nandina, heavenly bamboo)
Nephrolepis cordifolia (sword fern)
Neyraudia reynaudiana (Burma reed, cane grass)
Oeceoclades maculata (ground orchid)
Paederia foetida (skunk vine)
Panicum repens (torpedo grass)
Pennisetum purpureum (Napier grass)
Pistia stratiotes (water lettuce)
Psidium guajava (guava)
Psidium littorale (= *P. cattleianum)* (strawberry guava)
Pueraria montana (= *P. lobata)* (kudzu)
Rhodomyrtus tomentosus (downy myrtle)
Rhoeo spathacea (= *R. discolor)* (oyster plant)
Sapium sebiferum (popcorn tree, Chinese tallow tree)
Scaevola taccada var. *sericea* (= *S. frutescens, = S. sericea*) (scaevola, half-flower, beach naupaka)
Schefflera actinophylla (Brassaia actinophylla) (schefflera)
Schinus terebinthifolius (Brazilian pepper)
Solanum torvum (turkey berry)
Solanum viarum (tropical soda apple)
Syzygium cumini (jam bolan, Java plum)
Tectaria incisa (incised halberd fern)
Thespesia populnea (seaside mahoe)
Tradescantia fluminensis (white-flowered wandering jew)

APPENDIX D

LANDTYPE ASSOCIATIONS

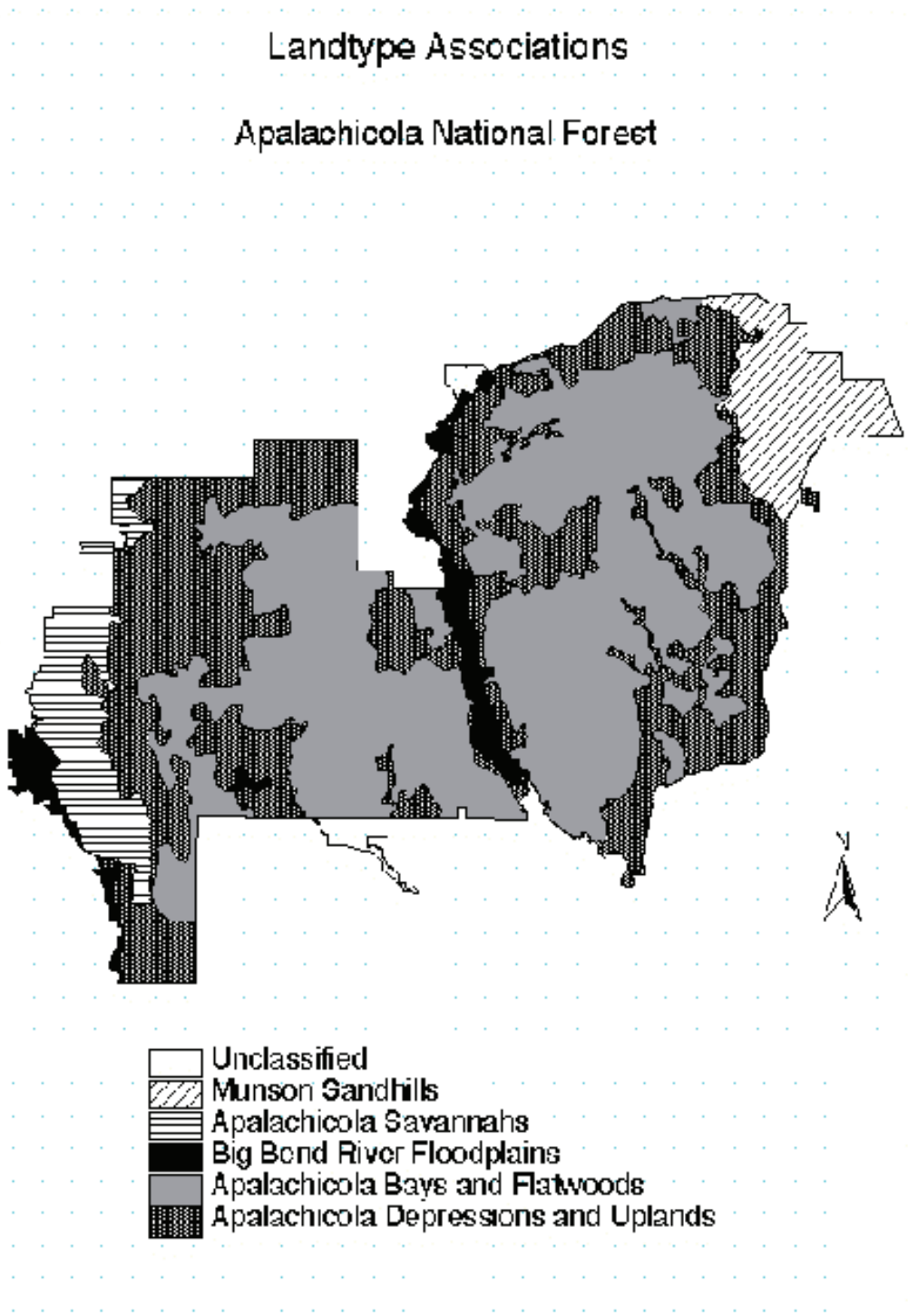
One of the new sources of information used was the classification of land units into a hierarchical system called ecological classification system. The purpose of this is to delineate, name, and describe units of land that have management significance and ecological integrity. From largest to smallest, units of the hierarchy are domain, division, province, section, subsection, landtype association (LTA), landtype, phase, and site. The national forests in Florida lie within the humid temperate domain, subtropical division, and outer coastal plain mixed forest province.

At the next lower levels, the Apalachicola National Forest (NF) lies within the Florida Coastal Lowlands western section and the Coastal Plain and Flatwoods lower section. Subsections include Gulf Coastal Flatwoods, Southern Coastal Plains, and Gulf Southern Loam Hills. The Osceola NF lies within the Atlantic Coastal Flatwoods section. Subsections include the Upper Terraces, Okefenokee Uplands, and Okefenokee Swamp. The Ocala NF lies within the Coastal Plains and Flatwoods lower section and the Central Florida Highlands subsection.

The level of most concern to forestland management planning is the level below subsection, the landtype association. This level occurs at a scale from 10 to 250 square miles. The following is a brief description of landtype associations found on the Apalachicola, Ocala, and Osceola NFs. Due to the small amount of acreage on the Choctawhatchee NF, LTAs were not delineated.

LTAs that were delineated by an interdisciplinary team are in draft form. Additional refinement and ground-truthing is necessary and will occur through the planning period. These LTAs were used to define areas on the forests capable of attaining certain desired future conditions.

Different desired future conditions (DFCs) were applied to areas corresponding to a single LTA or a combination of LTAs to develop plan alternatives.


Landtype Associations
Apalachicola National Forest
N
Unclassified
Munson Sandhills
Apalachicola Savannahs
Big Bend River Floodplains
Apalachicola Bays and Flatwoods
Apalachicola Depressions and Uplands

Landtype Association of Apalachicola National Forest

Apalachicola Depressions and Uplands

Apalachicola Depressions and Uplands LTA is a Pliocene-Pleistocene area with gently-sloping topography. It is poorly drained with the water table near the surface. Soils have organic layers over yellowish, loamy subsoils. Longleaf pine is the dominant upland tree with bays common in swamps and stringers.

Apalachicola Savannahs

Apalachicola Savannahs LTA is a Pleistocene feature. Its topography is gently sloping with concave areas that pond during the rainy seasons, forming savannahs. Ridge soils are sandy, while soils in concave areas are loamy with clayey subsoils. Longleaf pine is the dominant tree species. Savannahs are treeless and have a highly diverse wetland herbaceous community.

Big Bend River Floodplains

Big Bend River Floodplains LTA has a smooth to concave topography with a well-defined drainage pattern. The geology dates from the Pleistocene. The somewhat poorly to well-drained soils have a loamy surface layer over clay subsoil. The dominant forest type is hardwood with scattered longleaf and loblolly pine.

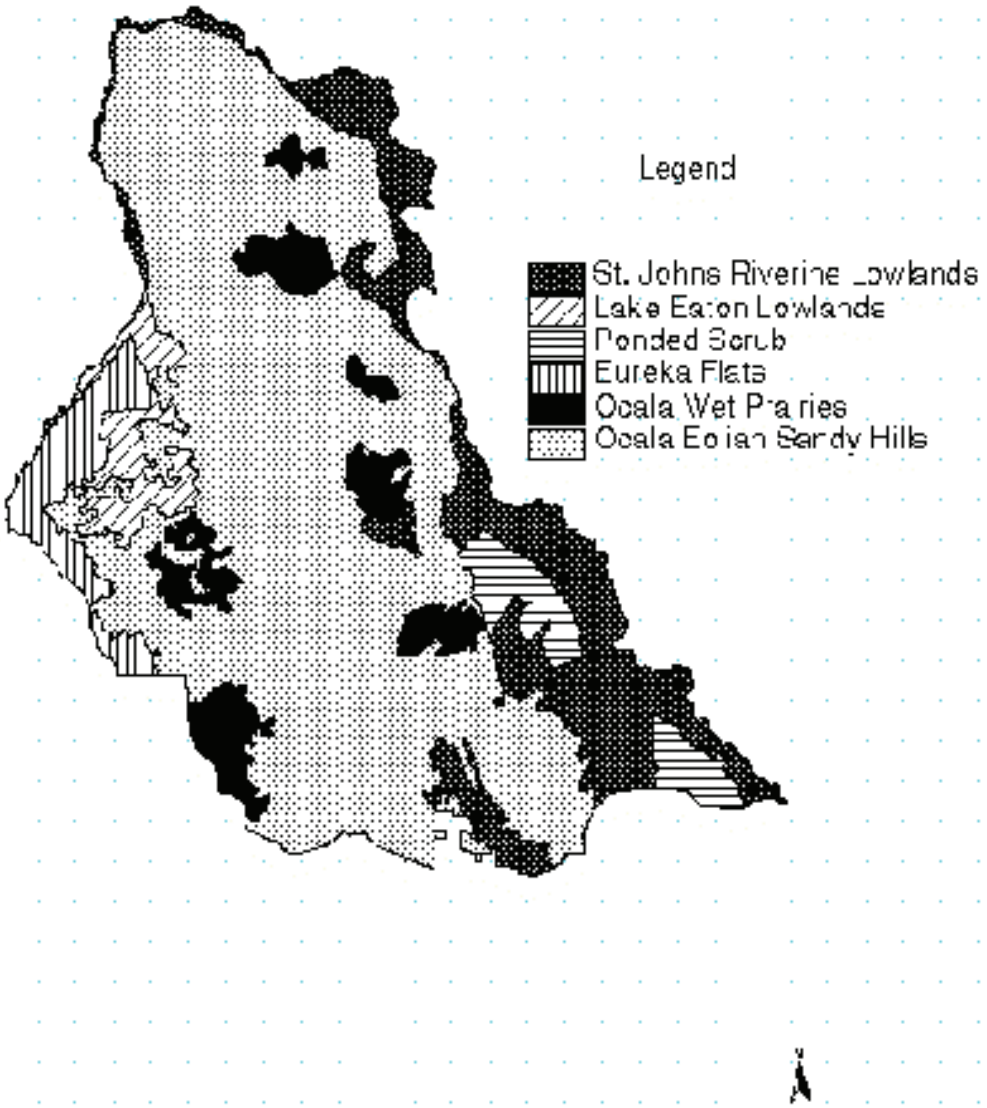
Munson Sandhills

Munson Sandhills LTA is a Pliocene-Pleistocene area of gently-rolling hills with sinks. Soil is sand with clay lenses underlaying erosional limestone that is moderately to excessively drained. Dominant trees are longleaf pine, turkey oak, and bluejack oak.

Apalachicola Bays and Flatwoods

Apalachicola Bays and Flatwoods LTA dates from the Pliocene-Pleistocene. It is nearly level, with poorly defined stream channels and broad sheet flow. Ponding is common. Soils are organic layers over gray-to-brown sands. Common vegetative communities are longleaf pine-wiregrass with scattered slash pine and bay and titi swamps.

Landtype Associations
Ocala National Forest



Landtype Associations of Ocala National Forest

Eureka Flats

Eureka Flats LTA lies in an area of Pleistocene sand shallowly deposited over remnants of an old alluvium deposit associated with the Ocklawaha River. Topography is flat. Soils are very poorly drained due to the ability of the alluvium silty clay to perch water temporarily. Soil fertility is moderate. Slash and loblolly pine and water and live oaks dominate.

Lake Eaton Lowlands

Lake Eaton Lowlands LTA is an area of late-Pliocene lowlands with uplifted sandy ridges. It is characterized by a series of blackwater or tea-colored lakes connected by streams or broad drainages which eventually drain into the Ocklawaha River. Soils are very poorly drained sands and mucks and have some clay. Dominant forest type is mixed pines and hardwoods.

Ocala Eolian Sandy Hills

Ocala Eolian Sandy Hills LTA is Pleistocene wind-deposited sand laid over the Cypresshead Formation, which had been deposited and eroded earlier (Pliocene). The topography was modified by karst. Undulating sandhills occasionally are interrupted by lakes, sinks, or prairies. The excessively well-drained sand has low fertility and is low in organics. Sand pine scrub dominates, but several islands of longleaf pine-wiregrass also occur.

Ocala Wet Prairies

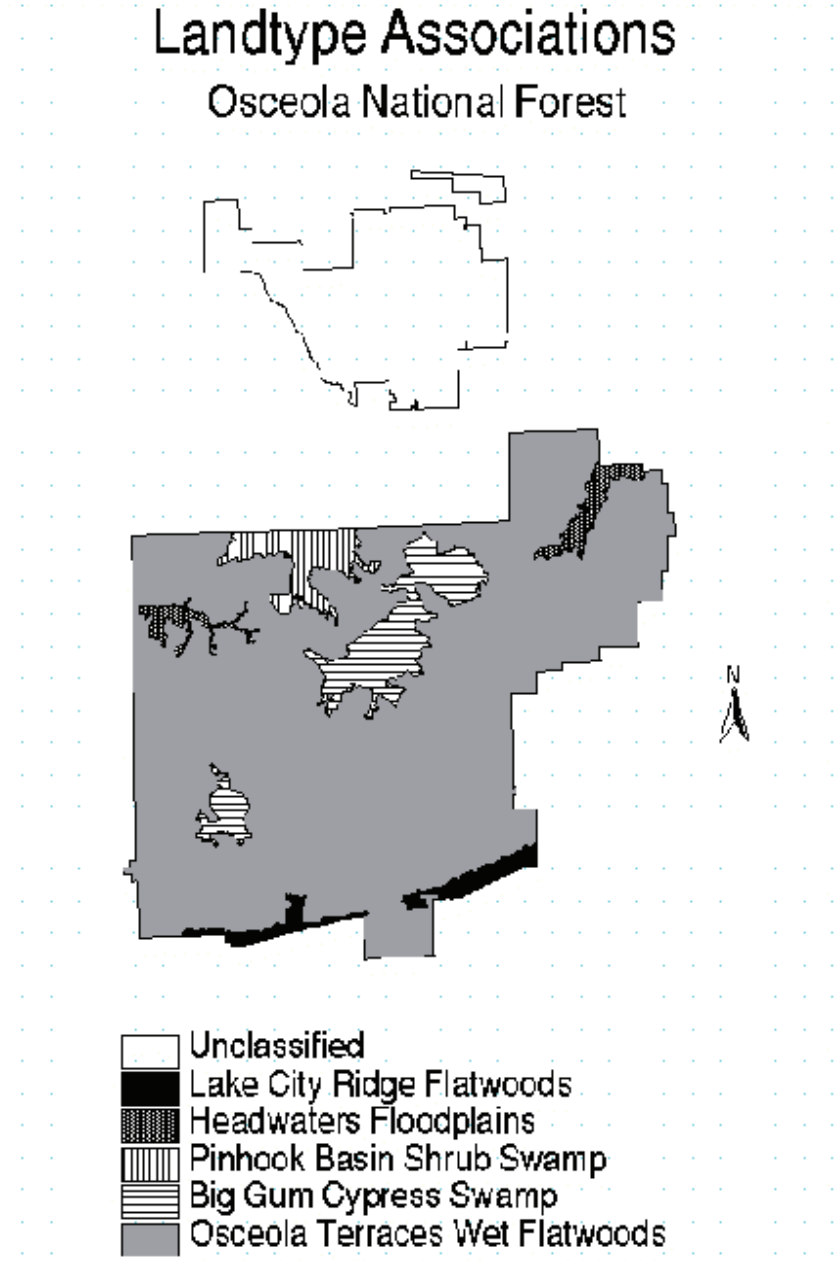
Ocala Wet Prairies LTA consists of oligotrophic lakes and ponds in karst drainage basins within eolian sandy hills. The geology of the LTA dates from the Miocene, as observed by the Hawthorne formation. Topography is flat on prairies, then rises in gentle hills around and between prairies. Prairies range in size from a few acres to hundreds of acres. Soils are sand, silt, and clay. Wet prairie vegetation is rimmed by slash pine and saw palmetto embedded in sand pine scrub.

Ponded Scrub

Ponded Scrub LTA consists of Pleistocene uplifted sandhills with numerous karst lakes and small prairies. Soils are eolian sands with a spodic horizon present, though the spodic horizon may be as deep as 3-4 meters. Soils vary from excessively drained on ridges to poorly drained at lower elevations. Vegetation is a mosaic of plant communities, including sand pine, longleaf pine, bay, and maple.

St. Johns Riverine Lowlands

St. Johns Riverine Lowlands LTA is comprised of Holocene river floodplains and adjacent flats. It has many springs, drowned dunes, and estuarine deposits. Soils are sand, shell, clay, marl, peat, and silt. Soils are poorly to very poorly drained with seasonal flooding. Wetland hardwoods, cypress, black gum, maple, bay, and ash are dominant trees.


Landtype Associations
Osceola National Forest
N
Unclassified
Lake City Ridge Flatwoods
Headwaters Floodplains
Pinhook Basin Shrub Swamp
Big Gum Cypress Swamp
Osceola Terraces Wet Flatwoods

Landtype Associations of Osceola National Forest

Big Gum Cypress Swamp

Big Gum Cypress Swamp LTA is a Pliocene basin with muck or peat overlying sand or fine sandy loam. It is characteristically waterlogged much of the year, but permanent water courses are difficult to discern. Cypress, black gum, and slash pine are the dominant trees.

Headwaters Floodplains

Headwaters Floodplains LTA consists of Miocene stream courses with distinct concave bottoms and evidence of natural levees. Slopes adjacent to stream beds may reach 5 percent. Soils are poorly drained fine sands. Mixed bay swamps dominate the stream drainages.

Lake City Ridge Flatwoods

Lake City Ridge Flatwoods LTA occurs on moist, sandy, flat ridges of a Miocene marine terrace. The water table is within 1 foot of the surface for 6 months of the year. Predominant trees are longleaf pine, with scattered slash pine and bay and cypress in small wetland depressions.

Osceola Terraces Wet Flatwoods

Osceola Terraces Wet Flatwoods LTA is a wet upland sandy flat interspersed with moist sandy ridges dating from the Miocene and Pliocene. It has a poorly defined drainage system and is subject to rainy-season ponding. Predominant trees are slash pine with scattered longleaf pine. Many small depressions and strands contain cypress, slash pine, black gum, and bay.

Pinhook Basin Shrub Swamp

Pinhook Basin Shrub Swamp LTA is a Pliocene waterlogged floodplain with natural levees along streams. The area has large depression with islands of higher ground. Soil is a layer of peat over sand, with a subsoil containing clay. Vegetation is dominated by shrubs such as fetterbush, gallberry, wax myrtle, and titi, with scattered cypress, black gum, and pond pine.

APPENDIX E

MONITORING TASKS

This appendix contains the detailed monitoring task sheets referred to in Chapter 5. These task sheets are used to develop the details, priorities and budgets for answering the monitoring questions. Estimated costs for a monitoring task does not include data collection for data bases and reports which are maintained routinely, irrespective of Forest Plan requirements. The task sheets will be modified as new techniques, methods, or approaches are developed. Changes to the task sheets will not require a Forest Plan amendment. Significant changes to these task sheets will be communicated to the public by the Annual Monitoring and Evaluation (M&E) Report. To the fullest extent possible, ongoing research will be included.

Task sheets are a tool used to facilitate monitoring and do not contain all information on methods of collection and analysis. For example: conclusions about population trends for MIS species and their relationship to habitat are developed through a variety of approaches (page E-48). The approaches include:

1. Measurement of habitat conditions and trends (i.e. the amount and condition of habitat over time) for species for which the relationship between population measures and habitat are well known so that trends in habitat provide a reliable indication of population trends.
2. The use of population occurrence and presence/absence data to improve knowledge of species distribution, relative abundance, and habitat relationships. These measures repeated over time, may provide information on trends in distribution and relative abundance.
3. The use of population indices to track relative population trends. These indices are not actual population estimates, but are aimed at reflecting trends or possibly relative abundance for a species. Examples could include state hunting/fishing information, track counts, and bird point counts. Some of this information may also be useful in validating species/habitat relationships.
4. Actual population estimates and demographic information based on 100% population counts or sampling. This is the most intensive and rigorous methodology usually reserved for some federally listed species or high risk globally impaired species selected as MIS.
5. Development of research studies with the objective of determining species/habitat relationships, and species response to the types of habitat change created through land management activities.

Monitoring Task Sheet

Goal/DFC: 1 5

Objective: 1

Standard:

Monitoring purpose:

Question(s): Are people satisfied with service from the national forests in Florida?

Monitoring item: Public survey.
Public complaints received as congressionals, as letters, or verbally.

Range of acceptable results: Baseline

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Public Affairs (PA), all Staff areas
(district, research, co-op, etc.)

Method of collection: Public survey distributed as widely as possible in Florida.
(specific) Tally of complaints received.

Time and frequency of collection: Survey every 2-5 years, annually monitor complaints.

Source of data (field, research, data base, etc.): PA files for complaints, survey.

Cost of collections: $5,000

Analysis/Evaluation of Findings

Who conducts: Public Affairs, Planning Interdisciplinary (ID) Team

Method of analysis: To be determined in survey data.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $6,000

Report of Findings

Information to be reported: Results of survey, number and summary of complaints.

Frequency of report: 2-5 years, survey, annually for complaints

Method of reporting: 5-year review, results of survey, Annual M&E Report, complaints

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 2 — The public participates in planning, management, and monitoring of the national forests in Florida.

Objective: 2

Standard:

Monitoring purpose:

Question(s): How much public participation do we have?

Monitoring item: Status report on public involvement efforts

Range of acceptable results: Baseline

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Public Affairs, Planning Staff
(district, research, co-op, etc.)

Method of collection: During a 3-month time frame, analyze participation in all public forums.
(specific) Summarize sample of public involvement on selected projects.

Time and frequency of collection: 2-5 year public forum, annually, NEPA documentation.

Source of data (field, research, data base, etc.): Public forums, NEPA documentation, mailing lists, comment letters.

Cost of collections: $2,500

Analysis/Evaluation of Findings

Who conducts: Public Affairs, Planning ID Team

Method of analysis: Determine if all groups are represented and if participants represent a cross-section of Florida's demographics.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $3,500

Report of Findings

Information to be reported: Summary of public involvement efforts.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 3 4 Partnership with other national forests, agencies, tribal governments, organizations, groups, and local communities provide a collaborative approach to national forest management.

Objective: 2

Standard:

Monitoring purpose:

Question(s): Have partnerships been strengthened?

Monitoring item: Status report on projects initiated and completed with partnerships

Range of acceptable results: Baseline

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Public Affairs
(district, research, co-op, etc.)

Method of collection: Survey of partners
(specific)

Time and frequency of collection: Every 2-5 years

Source of data (field, research, data base, etc.): Survey

Cost of collections: $2,500

Analysis/Evaluation of Findings

Who conducts: Public Affairs, Planning ID Team

Method of analysis: To be determined in survey design.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $3,500

Report of Findings

Information to be reported: Status report of partnerships

Frequency of report: 2-5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 — Economic benefits from wood products are maintained, while benefits from wildlife and recreation are a larger proportion of forest benefits.

Objective:

Standard:

Monitoring purpose:

Question(s): How are we contributing to the socioeconomic well-being?

Monitoring item: Returns to counties, direct and indirect benefits through timber, recreation, range, minerals, and special uses.

Range of acceptable results: Baseline

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Planning Staff, Budget & Finance
(district, research, co-op, etc.)

Method of collection: Payment to States Report, run IMPLAN model with annual timber, wildlife & fish user-day and recreation visitor-day outputs.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Payment to States Report, IMPLAN, Sale Tracking and Reporting System (STARS), Recreation Information Management (RIM).

Cost of collections: $2,000

Analysis/Evaluation of Findings

Who conducts: Planning ID Team

Method of analysis: Establish trends at end of 5th year and assess needs.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $500

Total cost of monitoring: $2,500

Report of Findings

Information to be reported: Returns to counties, IMPLAN results, total fees collected.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 — Economic diversity of the local economy is increased.

Objective:

Standard:

Monitoring purpose:

Question(s): What rural development programs have been implemented?

Monitoring item: Status report

Range of acceptable results: Baseline

Reliability: High Precision: High

Collection of Information

Who collects: Planning Staff
(district, research, co-op, etc.)

Method of collection: Assemble status report on rural development programs.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Rural development files

Cost of collections: $1,000

Analysis/Evaluation of Findings

Who conducts: Planning ID Team

Method of analysis: Compare programs implemented with needs and opportunities.
Project future needs.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $2,000

Report of Findings

Information to be reported: Rural Development Status Report

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health.

Objective: 3

Standard: VG-16

Monitoring purpose:

Question(s): How much off-site slash pine has been restored to other types?

Monitoring item: Acres type-converted from slash pine forest type to other types.

Range of acceptable results: Within objective range.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff, District Silviculturist
(district, research, co-op, etc.)

Method of collection: Manual data report by District Silviculturist
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field records

Cost of collections: $375

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare acreage to objective at end of 5th year.
If outside acceptable range, determine cause.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $500

Report of Findings

Information to be reported: Acres of off-site slash pine restored to other forest types.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 8, 9, 10 — Soil productivity is maintained. National forests sustain timber harvesting without impairing the health of ecosystems.

Objective:

Standard: VG-18

Monitoring purpose:

Question(s): Has soil disturbance been minimized in preparing longleaf and slash pine sites for tree regeneration?

Monitoring item: Percent of the area treated with soil displacement.

Range of acceptable results: No more than 10% of the area treated with soil displacement as result of the treatment.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Ecosystem Staff, District Silviculturist, Botanist
(district, research, co-op, etc.)

Method of collection: Sample plots in area treated to determine percent of soil surface displaced
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field

Cost of collections: $ 1,000

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Sort by site-preparation method and report findings.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $3,000

Total cost of monitoring: $4,000

Report of Findings

Information to be reported: Acres treated using ground-disturbing site-prep method and the percent of soil displacement in the treated areas.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 8, 9, 10 — Vegetation patterns reflect natural disturbances, as well as planned harvest activities. Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health.

Objective:

Standard:

Monitoring purpose:

Question(s): Are we collecting data on understory structure?

Monitoring item: Stands with understory data in Continuous Inventory of Stand Conditions (CISC) data base.

Range of acceptable results: Increasing trend in stands with data collected.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Query CISC data base for stands with understory codes, sort by category.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): CISC data base

Cost of collections: $375

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare stands with understory codes at the end of 5th year. Should be an increasing trend (only if not currently being coded).

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $500

Report of Findings

Information to be reported: Acres by understory category, percent of stand with information.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 9 8 — Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health.

Objective: 7

Standard: VG-16

Monitoring purpose:

Question(s): How much off-site sand pine has been restored to other types?

Monitoring item: Acres type-converted from off-site forest type to other types.

Range of acceptable results: Within objective range.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff, District Silviculturist
(district, research, co-op, etc.)

Method of collection: Manual data reported by District Silviculturist.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field records

Cost of collections: $125

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare acreage to objective at end of 5th year.
If outside acceptable range, determine reason.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $250

Report of Findings

Information to be reported: Acres of off-site sand pine restored.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Longleaf pine ecosystems are burned frequently during growing season to mimic the extent, duration, and intensity fire naturally played in this ecosystem.

Objective: 4

Standard:

Monitoring purpose:

Question(s): What is the burning interval of upland pine acres?

Monitoring item: Acres of upland pine burned.

Range of acceptable results: A 3-year average interval over a 10-year period.

Reliability: Moderate Precision: High

Collection of Information

Who collects: Fire Staff, Districts
(district, research, co-op, etc.)

Method of collection: Existing records.
(specific) Enter burning records into Geographic Information System (GIS).
Query from GIS.

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Historic prescribed burn records, data base.

Cost of collections: $500

Analysis/Evaluation of Findings

Who conducts: Fire Staff, Planning ID Team

Method of analysis: Compare actual accomplishments with objective at end of 5th year.
If outside acceptable range, determine cause.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $200

Total cost of monitoring: $700

Report of Findings

Information to be reported: Percent of longleaf acres burned in last 3 years.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Longleaf pine ecosystems are burned frequently during growing season to mimic the extent, duration, and intensity fire naturally played in this ecosystem.

Objective: 4

Standard:

Monitoring purpose:

Question(s): In what months have upland pine acres been burned?

Monitoring item: Acres burned by month.

Range of acceptable results: Increasing trend toward 50% between March 15 and September 30 and 20% between May 1 and July 31.

Reliability: High Precision: High

Collection of Information

Who collects: Fire Staff, Districts
(district, research, co-op, etc.)

Method of collection: Existing records.
(specific) Enter burning records into GIS. Query GIS.

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Data base, historic records

Cost of collections: $500

Analysis/Evaluation of Findings

Who conducts: Fire Staff, Planning ID Team

Method of analysis: Compare actual results with objective at end of 5th year. If outside acceptable range, determine cause.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $200

Total cost of monitoring: $700

Report of Findings

Information to be reported: Percent of acres burned between March 15 and September 30.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10
Vegetation patterns reflect natural disturbances, as well as planned harvest activities. Longleaf and slash pine stands contain different ages, sizes, and densities of trees. Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health.

Objective: 5

Standard: VG-20

Monitoring purpose:

Question(s): How many acres have been offered for thinning?

Monitoring item: Number of acres offered for thinning harvest.

Range of acceptable results: Within objective range.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Query STARS data base & FLSALE data base.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): STAR data base & FLSALE data base.

Cost of collections: $125

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare results with objective at end of 5th year.
If outside acceptable range, determine reason.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $250

Report of Findings

Information to be reported: Acres offered for thinning.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Vegetation patterns reflect natural disturbances, as well as planned harvest activities. Longleaf and slash pine stands contain different ages, sizes, and densities of trees.

Objective: 6

Standard:

Monitoring purpose:

Question(s): On how many acres have we initiated uneven-aged management harvests?

Monitoring item: Number of acres offered with uneven-aged management harvest.

Range of acceptable results: Within objective range.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff, District Staff
(district, research, co-op, etc.)
Method of collection: Query STARS data base.
(specific)
Time and frequency of collection: Annually
Source of data (field, research, data base, etc.): STARS data base.
Cost of collections: $375

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team
Method of analysis: Compare results with objective at end of 5th year.
If outside acceptable range, determine reason.

Results:
Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N
Recommended actions implemented: (Date)
Cost of A/E: $125
Total cost of monitoring: $500

Report of Findings

Information to be reported: Acres offered with uneven-aged harvest.

Frequency of report: Annually
Method of reporting: Annual M&E Report
Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Vegetation patterns reflect natural disturbances, as well as planned harvest activities.

Objective: 18

Standard:

Monitoring purpose:

Question(s): On how many acres have we initiated irregular shelterwood harvests?

Monitoring item: Number of acres offered with irregular shelterwood

Range of acceptable results: Within objective range.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff, District Staff
(district, research, co-op, etc.)

Method of collection: Query STARS data base
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): STARS data base

Cost of collections: $ 375

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare results with objective at end of 5th year.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $200

Total cost of monitoring: $250

Report of Findings

Information to be reported: Acres offered with irregular shelterwood harvest.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 11 — Management and attributes of significant botanical, scenic, geological, and historical/cultural sites and resources are interpreted.

Objective:

Standard:

Monitoring purpose:

Question(s): Do forest visitors understand Forest Service (FS) management practices and do they value and respect the resources being interpreted?

Monitoring item: Number of interpretive facilities/opportunities per district and their level of quality.

Range of acceptable results: More than or equal to 2 facilities at each district that meet or exceed Meaningful Measures (MM) Standards.

Reliability: High Precision: High

Collection of Information

Who collects: Forest Interpretive Specialist
(district, research, co-op, etc.)

Method of collection: Observation/Evaluation
(specific)

Time and frequency of collection: Once every 2 years per district.

Source of data (field, research, data base, etc.): Field visits

Cost of collections: $2,600/year

Analysis/Evaluation of Findings

Who conducts: Forest Interpretive Specialist

Method of analysis: Compare findings to MM standards established for interpretive facilities.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $

Total cost of monitoring: $2,600/year

Report of Findings

Information to be reported: Compliance to MM Standards and number of facilities.

Frequency of report: Every 2 years for each district

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 12 — Recreation facilities and opportunities accommodate a wide range of abilities and mobility levels.

Objective: 11 — At least 20% of all developed sites (level 3 and above) accommodate people with disabilities and at least one swimming area, one hiking trail, or one fishing pier/boating site is Americans with Disabilities Act (ADA) accessible per forest.

Standard:

Monitoring purpose:

Question(s): What percent of each type of recreation sites are accessible? (Level 3+)

Monitoring item: Percentage of level 3 developed recreation facilities in compliance and number of ADA accessible swim areas, hiking trails, & fishing/boating piers.

Range of acceptable results: As stated in objective.

Reliability: High Precision: High

Collection of Information

Who collects: Forest Accessibility Coordinator
(district, research, co-op, etc.)

Method of collection: Field visits/observation
(specific)

Time and frequency of collection: Cover every district every 3 years.

Source of data (field, research, data base, etc.):

Cost of collections: $1,000/year

Analysis/Evaluation of Findings

Who conducts: Forest Accessibility Coordinator

Method of analysis: Compare to ADA standards.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $

Total cost of monitoring: $1,000/year

Report of Findings

Information to be reported: Level of compliance to ADA and Objective #11 (above).

Frequency of report: Every 3 years per district

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 13 — Developed recreation facilities and opportunities are safe, clean, and provide quality service and an enjoyable experience.

12 — Upgrade, refurbish, and/or replace facilities not meeting Meaningful Measures (MM) standards.

Objective:

Standard:

Monitoring purpose:

Question(s): Are developed recreation facilities providing ``up to MM standard," safety, cleanliness, and service? Do they reflect quality and customer service?

Monitoring item: Evaluation of each facility component as defined by MM and customer survey forms.

Range of acceptable results: Compliance to minimum MM standards.

Reliability: High Precision: High

Collection of Information

Who collects: District Recreation Managers and MM coordinators
(district, research, co-op, etc.)

Method of collection: Field observation and use of MM checklist and customer surveys.
(specific)

Time and frequency of collection: Each site will be evaluated once every year.

Source of data (field, research, data base, etc.):

Cost of collections: $5,000/year

Analysis/Evaluation of Findings

Who conducts: SO MM Coordinators and District Staff

Method of analysis: Compare against MM standards.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000/year

Total cost of monitoring: $6,000/year

Report of Findings

Information to be reported: Compliance to MM standards.

Frequency of report: Yearly

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 14 — Many areas and a variety of trails provide semiprimitive recreational opportunities.

Objective: 13 & 14

Standard:

Monitoring purpose:

Question(s): What system of trails has been designated on the ground and are they maintained at the appropriate level?

Monitoring item: Miles of trails by type and condition.

Range of acceptable results: Baseline

Reliability: High Precision: High

Collection of Information

Who collects: Recreation Staff
(district, research, co-op, etc.)

Method of collection: Query infrastructure data base. Verify with each district.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Infrastructure data base, field reviews.

Cost of collections: $2,500

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: Establish baseline.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $500

Total cost of monitoring: $3,000

Report of Findings

Information to be reported: Miles of trails established by type and condition.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 14 — Most of the Florida National Scenic Trail (FNST) is dedicated to long-term public use.

Objective: 13, 14

Standard:

Monitoring purpose:

Question(s): How many miles of FNSTrail have been certified for public use?

Monitoring item: Miles of FNST certified for public use.

Range of acceptable results: ≥ 750 miles

Reliability: High Precision: High

Collection of Information

Who collects: Recreation Staff
(district, research, co-op, etc.)

Method of collection: Review certification agreements.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Certification agreements.

Cost of collections: $

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: Compare amount to objective at end of 5th year.
If outside range of acceptable results, determine cause.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $100

Total cost of monitoring: $100

Report of Findings

Information to be reported: Miles of FNST certified for public use.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 15 Several rivers are added to the National Wild and Scenic Rivers System.

Objective:

Standard:

:

Monitoring purpose:

Question(s): Have rivers been recommended as wild and scenic, and what is their status?

Monitoring item: Status of Record of Decision (ROD)/Legislative EIS.

Range of acceptable results: Recommend = yes

Reliability: High Precision: High

Collection of Information

Who collects: Recreation Staff, Forest Planner
(district, research, co-op, etc.)

Method of collection: Track status of Regional Office (RO) and Washington Office (WO)
(specific) actions on this recommendation of the ROD.

Time and frequency of collection: Quarterly

Source of data (field, research, data base, etc.): Planning, Legislative Affairs contact in RO and WO.

Cost of collections: $100

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: If Legislative EIS for the Forest Plan ROD has not been written within 5 years, meet with WO staff to develop EIS to recommend to Congress.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $600 (GS-11 for 3 days)

Total cost of monitoring: $700

Report of Findings

Information to be reported: Status report of wild and scenic river recommendation.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 16 — Additional areas are added to the wilderness system.

Objective:

Standard:

Monitoring purpose:

Question(s): Have wilderness opportunities been increased and has Clear Lake been recommended for wilderness status?

Monitoring item: Status of ROD/Legislative EIS.

Range of acceptable results: Recommend = yes

Reliability: High Precision: High

Collection of Information

Who collects: Recreation Staff, Forest Planner
(district, research, co-op, etc.)

Method of collection: Track status of RO and WO actions on this recommendation
(specific) of the ROD.

Time and frequency of collection: Quarterly

Source of data (field, research, data base, etc.): Planning, Legislative Affairs contact in RO and WO.

Cost of collections: $100

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: If Legislative EIS for the Forest Plan ROD has not been written within 5 years, meet with WO staff to develop EIS to recommend to Congress.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $600 (GS-11 for 3 days)

Total cost of monitoring: $700

Report of Findings

Information to be reported: Status report of wilderness recommendation.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 16 Forests provide a refuge and tranquil retreat for people.

Objective:

Standard:

Monitoring purpose:

Question(s): Has wilderness character been protected?

Monitoring item: Percent of land in primitive and semiprimitive Recreation Opportunity Spectrum (ROS) classes. Ecosystem plots, number of obstacles and number of wildlife sightings on canoe trails.

Range of acceptable results: Baseline

Reliability: Moderate Precision: High

Collection of Information

Who collects: Districts, Recreation Staff
(district, research, co-op, etc.)

Method of collection: Reinventory of wilderness ecosystem plots, review ROS data base,
(specific) talley of obstacles, wildlife sightings, and canoe spacing quarterly.

Time and frequency of collection: Ecosystem plots every 3 years, trail observations, quarterly.

Source of data (field, research, data base, etc.): Field data and GIS data base

Cost of collections: $8,300

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: Determine changes in ecosystem plots, % changes in ROS classes as land is acquired or exchanged. Establish baseline for obstacles and wildlife viewing. Evaluate canoe spacing related to complaints.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $600

Total cost of monitoring: $8,900

Report of Findings

Information to be reported: Baseline ecosystem plot data, trends in ROS class changes. Baseline data for canoe experiences.

Frequency of report: 5 years for ecosystem and ROS data, annually for canoe trail data

Method of reporting: 5-year review, Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 6

Objective:

Standard:

Monitoring purpose:

Question(s): Has Natural Area wilderness study area been recommended for release?

Monitoring item: Status of ROD/Legislative EIS.

Range of acceptable results: Recommend = yes

Reliability: High Precision: High

Collection of Information

Who collects: Recreation Staff, Forest Planned
(district, research, co-op, etc.)

Method of collection: Track status of RO and WO actions on ROD recommendations.
(specific)

Time and frequency of collection: Quarterly

Source of data (field, research, data base, etc.): Planning, Legislative Affairs contact in RO and WO.

Cost of collections: $100

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: If Legislative EIS has not been written within 5 years, meet with WO staff to develop EIS to recommend to Congress.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $600

Total cost of monitoring: $700

Report of Findings

Information to be reported: Status report of recommendation.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 18 — Forests are consolidated in ownership patterns. Key tracts containing unique plant and animal habitats, riparian areas, geologic features, cultural resources, wetlands, and recreational opportunities are acquired.

Objective: 16 & 17

Standard: LA-1 through LA-6

Monitoring purpose:

Question(s): Have land purchases and exchanges met the objectives established in the Forest Plan?

Monitoring item: Map of tracts acquired and exchanged, miles of landlines maintained.

Range of acceptable results: ≥ objectives

Reliability: High Precision: High

Collection of Information

Who collects: Lands Staff
(district, research, co-op, etc.)

Method of collection: Assemble annual land adjustments and submit to GIS coordinator for input.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Lands status atlas, files

Cost of collections: $3,000

Analysis/Evaluation of Findings

Who conducts: Lands Staff, Planning ID Team

Method of analysis: Compare results with objectives at end of 5th year. If not within acceptable range, determine cause.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $4,000

Report of Findings

Information to be reported: Tracts acquired and exchanged, percent consolidation. Miles of landlines maintained.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 14 — Many areas and a variety of trails provide semiprimitive recreational opportunities. A higher proportion of roads are closed to motorized travel than in previous decades.

Objective: 13

Standard: AC-1 through AC-2

Monitoring purpose:

Question(s): Is the access policy having the desired effect of protecting the resources?

Monitoring item: Photopoints at areas of resource concern.

Range of acceptable results: Improving site conditions.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Recreation District Staff
(district, research, co-op, etc.)

Method of collection: Establish 5 photopoints per district
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field photographs

Cost of collections: $1,500

Analysis/Evaluation of Findings

Who conducts: Recreation Staff, Planning ID Team

Method of analysis: Establish baseline points and photographs, compare annual photographs.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $150

Total cost of monitoring: $1,650

Report of Findings

Information to be reported: Conditions at sites of concern.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 7 Streams, ponds, wetlands, and riparian areas on the forests possess water quality that reflects healthy, functioning aquatic ecosystems

Objective:

Standard:

Monitoring purpose:

Question(s): Are aquatic and terrestrial ecosystems being impaired by acid deposition?

Monitoring item: Change in water chemistry parameters regarding acid neutralization capacities.

Range of acceptable results: No significant decline in acid neutralization capacity.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Ecosystem Staff in cooperation with major partner
(district, research, co-op, etc.)

Method of collection: Watershed survey/water sampling.
(specific) Develop protocol with partner.

Time and frequency of collection:

Source of data (field, research, data base, etc.): Field

Cost of collections: $7,000/year

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Determine changes in water chemistry, reasons and recommendations.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $2,000

Total cost of monitoring: $9,000

Report of Findings

Information to be reported: Results of analysis and evaluation.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 7 Nutrient levels and nutrient-cycling processes continue to function.

Objective:

Standard: WL-21

Monitoring purpose:

Question(s): Which water bodies were fertilized?

Monitoring item: Report which water bodies were fertilized.

Range of acceptable results: Within standards.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Survey
(specific)

Time and frequency of collection: Yearly

Source of data (field, research, data base, etc.): Districts

Cost of collections: $500

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Survey

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $500

Total cost of monitoring: $1,000

Report of Findings

Information to be reported: Water bodies fertilized.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 — There are opportunities to enjoy both developed and dispersed recreational activities and opportunities for consumptive, as well as nonconsumptive, use of forest resources.

Objective:

Standard: VG-33

Monitoring purpose:

Question(s): How much of each ``special forest product'' did we give permits to be collected and in what locations?

Monitoring item: Quantity of each type, ranger district, and compartment.

Range of acceptable results: Baseline

Reliability: High Precision: High

Collection of Information

Who collects: Districts, Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Manual examination of each permit to record type product,
(specific) quantity, and location.

Time and frequency of collection: Every 6 months

Source of data (field, research, data base, etc.): Individual permits

Cost of collections: $950/year

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Establish trends after 5th year.
Determine if any mitigating actions are needed.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $200

Total cost of monitoring: $1,150

Report of Findings

Information to be reported: Quantity of each product and location.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 — National forests sustain timber harvesting without impairing the health of ecosystems. The forests continue to produce large, quality pine sawtimber products.

Objective: 5, 6, 7, & 10

Standard: VG-29

Monitoring purpose:

Question(s): How much timber was offered for sale?

Monitoring item: Thousand cubic feet (MCF) of timber offered annually by type, product, and forest.

Range of acceptable results: Not to exceed average annual allowable sale quantity (ASQ).

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Query STARS, ATSA (Automated Timber Sale Accounting), and FLSALE data bases.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): STARS, ATSA, & FLSALE data bases.

Cost of collections: $125

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare results with ASQ at end of 5th year. If outside acceptable range, determine reason.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $250

Report of Findings

Information to be reported: MCF of timber products offered by forest.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 7 8 9 — Fire plays an increased role in maintaining many upland forest ecosystems. Soil productivity is maintained.

Objective:

Standard: FI-7 & FI-8

Monitoring purpose:

Question(s): How many miles of firelines were plowed for prescribed fire and wildfires?
How many miles were restored to natural conditions?

Monitoring item: Miles of plowed firelines for prescribed fire and wildfire.
Miles of plowed firelines restored.

Range of acceptable results: Baseline, decreasing trend for plowed line construction.
Increasing trend for plowed line restoration.

Reliability: Moderate Precision: Low

Collection of Information

Who collects: Districts, Fire Staff
(district, research, co-op, etc.)

Method of collection: Estimate from prescribed burn maps and wildfire information. Map
(specific) wheel measure prescribed burn maps. Incident Commander (IC)
estimate on wildfires.

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Office review

Cost of collections: $500

Analysis/Evaluation of Findings

Who conducts: Fire Staff, Planning ID Team

Method of analysis: Compare results at end of 5th year.
If outside acceptable range, determine cause.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $200

Total cost of monitoring: $700

Report of Findings

Information to be reported: Miles of plowed firelines for prescribed fire and
wildfire by forest. Miles of plowed lines restored.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: There are opportunities to enjoy both developed and dispersed recreational activities and opportunities for consumptive as well as nonconsumptive use of forest resources.

Objective:

Standard: LA-8 through LA-15

Monitoring purpose:

Question(s): Are special-use permits in compliance and if not, what actions are taken?

Monitoring item: Special-use permits in noncompliance.
Report of actions taken.

Range of acceptable results: Adequate action taken to bring permits in compliance.

Reliability: High Precision: High

Collection of Information

Who collects: Districts, Lands Staff
(district, research, co-op, etc.)

Method of collection: Lands staff assemble cases in noncompliance.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Special-use Permit files

Cost of collections: $500

Analysis/Evaluation of Findings

Who conducts: Lands Staff, Planning ID Team

Method of analysis: Review permits and in noncompliance, report of action taken.
Determine if permit is in compliance or what further action is needed.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $500

Total cost of monitoring: $1,000

Report of Findings

Information to be reported: Cases in noncompliance and action taken.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 7 15 Water quality is maintained and, in some cases, improved.

Objective:

Standard: WA-1 through WA-7

Monitoring purpose:

Question(s): Is water quality being maintained at swim sites?

Monitoring item: Fecal coliform - swim sites.

Range of acceptable results: Within State water quality criteria.

Reliability: Moderate Precision: High

Collection of Information

Who collects: District Staff
(district, research, co-op, etc.)

Method of collection: Grab samples
(specific) 20 stations

Time and frequency of collection: Biweekly, May through September

Source of data (field, research, data base, etc.): Field

Cost of collections: $6,000

Analysis/Evaluation of Findings

Who conducts: County Laboratory

Method of analysis: Membrane filter technique.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $10,000

Total cost of monitoring: $16,000

Report of Findings

Information to be reported: Summary of sample data.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 7 15 Water quality is maintained and, in some cases, improved.

Objective:

Standard:

Monitoring purpose:

Question(s): Is groundwater quality being maintained?

Monitoring item: Potable water (drinking water) sources.
Recreation areas and administration sites.

Range of acceptable results: Zero coliform

Reliability: Moderate Precision: High

Collection of Information

Who collects: District Staff
(district, research, co-op, etc.)

Method of collection: Grab sample
(specific)

Time and frequency of collection: Monthly

Source of data (field, research, data base, etc.): Field

Cost of collections: $19,350

Analysis/Evaluation of Findings

Who conducts: County, private, or Department of Environmental Protection Laboratory

Method of analysis: Membrane filter technique.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $6,450

Total cost of monitoring: $25,800

Report of Findings

Information to be reported: Summary of data.

Frequency of report: Monthly

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 7 15 Water quality is maintained and, in some cases, improved.

Objective:

Standard:

Monitoring purpose:

Question(s): Is groundwater quality being maintained?

Monitoring item: Potable water (drinking water) sources.

Range of acceptable results: Nitrate/nitrite concentration less than 10mg/l.

Reliability: Moderate Precision: High

Collection of Information

Who collects: District Staff
(district, research, co-op, etc.)

Method of collection: Grab sample
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field

Cost of collections: $450

Analysis/Evaluation of Findings

Who conducts: County, private, or Department of Environmental Protection Laboratory

Method of analysis: Wet chemistry

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $650

Total cost of monitoring: $1,100

Report of Findings

Information to be reported: Summary of data.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 — Air quality is maintained, although portions of the forests may experience some temporary reduction.

Objective:

Standard: WA-8 & WA-9

Monitoring purpose:

Question(s): Is air quality being maintained?

Monitoring item: Ozone injury to vegetation.

Range of acceptable results: None to slight. Reevaluate if injury rises to moderate.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Vegetation surveys
(specific)

Time and frequency of collection: Five-year survey. Protocol to be developed.

Source of data (field, research, data base, etc.): Field

Cost of collections: $1,000/year/site

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Determine significance of injury and causes.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $4,000

Report of Findings

Information to be reported: Summary of analysis.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 — Air quality is maintained, although portions of the forests may experience some temporary reduction.

Objective:

Standard: WA-8 & WA-9

Monitoring purpose:

Question(s): Is air quality being maintained?

Monitoring item: Particulates

Range of acceptable results: Within State air quality standards.

Reliability: Moderate Precision: High

Collection of Information

Who collects: Ecosystem Staff, Cooperative Partner
(district, research, co-op, etc.)

Method of collection: PM 10 sampler operated by partnership with State.
(specific)

Time and frequency of collection: Continuous through fire season for 5 years.

Source of data (field, research, data base, etc.): Field

Cost of collections: $2,000/year/site

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Determine reason for any samples outside standards.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $7,000

Report of Findings

Information to be reported: Summary of sample date and analysis.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 — Management of forest vegetation focuses on maintaining or restoring the natural range of diversity in age, species, and conditions for ecosystem health.

Objective:

Standard:

Monitoring purpose:

Question(s): What are the effects of cattle grazing on the vegetation?

Monitoring item: Biotic index along a transect. Include a transect across fence lines.

Range of acceptable results: No significant change in vegetation over time.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Ecosystem Staff, Research
(district, research, co-op, etc.)

Method of collection: Census transects
(specific)

Time and frequency of collection: Growing season, every 2 years.

Source of data (field, research, data base, etc.): Field/data base

Cost of collections: $400/year

Analysis/Evaluation of Findings

Who conducts: District Ecosystem Staff

Method of analysis: Compare relative abundance of plant species as well as actual number of proposed, endangered, threatened, or sensitive species (PETS) plants.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $100

Total cost of monitoring: $500/year

Report of Findings

Information to be reported: Effects of cattle grazing on vegetation.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 5 — A higher proportion of roads are closed to motorized travel than in previous decades.

Objective: 13

Standard:

Monitoring purpose:

Question(s): How many miles of system roads have been converted to another use or otherwise closed?

Monitoring item: Miles of roads reduced and deleted in transportation inventory system (TIS) updates.

Range of acceptable results: 2-3% reduction of miles annually.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Districts, Engineering Staff
(district, research, co-op, etc.)

Method of collection: Engineering zones track changes in system roads year-round.
(specific)

Time and frequency of collection: Annual inventory update.

Source of data (field, research, data base, etc.): Actual field data

Cost of collections: $5,100/year

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Engineering Staff

Method of analysis: Evaluate TIS records against trends in road closures/redesignations.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $100 (pull -up report)

Total cost of monitoring: $5,200

Report of Findings

Information to be reported: Miles of road deleted in TIS update.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 — Sand pine scrub forests are characterized by large, even-aged stands.

Objective: 9

Standard: 8.1-3 & 8.2-3

Monitoring purpose:

Question(s): What is the size of openings in sand pine?

Monitoring item: Size of openings.

Range of acceptable results: None exceed maximum size (160 or 320 acres). Increase toward maximum size

Reliability: High / Low — Precision: High (for size) / High (for distribution)

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Query CISC and GIS for stand size.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): CISC and GIS

Cost of collections: $125

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare average size of openings at end of 5th year. If not an increasing trend, determine reason.

Results:

- Within range of acceptable results: Y N
- Monitoring purpose achieved: Y N
- Further monitoring required: Y N
- Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $125

Total cost of monitoring: $250

Report of Findings

Information to be reported: Average size of openings.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 8, 9, 10 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer considered at risk.

Objective: 8 & 21

Standard:

Monitoring purpose:

Question(s): Are we maintaining red-cockaded woodpecker (RCW) populations on the Apalachicola, Ocala, and Osceola NFs?

Monitoring item: Number of active groups, number of nesting groups, compartment group survey per EIS.

Range of acceptable results: 500 clusters, stable to increasing, Apalachicola; 150 increasing,Wakulla; 45 increasing, Osceola; 4 increasing, Ocala.

Reliability: High Precision: High

Collection of Information

Who collects: District Biologist
(district, research, co-op, etc.)

Method of collection: Field survey, RCW guidelines
(specific)

Time and frequency of collection: Annually, April-June

Source of data (field, research, data base, etc.): Field

Cost of collections: $110,000/year

Analysis/Evaluation of Findings

Who conducts: District Biologist, SO Biologist

Method of analysis: Tally number of active clusters and percent of nesting success.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000/year

Total cost of monitoring: $111,000/year

Report of Findings

Information to be reported: Number of active clusters and percent of nesting success.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 8, 9 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer at risk.

Objective: 9 & 21

Standard: VG-27, 8.1-6, 8.2-5, 8.2-6

Monitoring purpose:

Question(s): How many acres are suitable for scrub-jays?

Monitoring item: Number of acres of sand pine in 3-15 year age class of sand pine.

Range of acceptable results: 45,000 to 55,000 acres.

Reliability: High Precision: High

Collection of Information

Who collects: Ecosystem Staff
(district, research, co-op, etc.)

Method of collection: Query CISC data base for age class distribution.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): CISC data base

Cost of collections: $250

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare acres in 3-15 year age class with objective at end of 5th year. If outside acceptable range, determine cause.

Results:

- Within range of acceptable results: Y N
- Monitoring purpose achieved: Y N
- Further monitoring required: Y N
- Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $500

Total cost of monitoring: $750

Report of Findings

Information to be reported: Acres of sand pine scrub in 3-15 year age class.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 8, 9 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer at risk.

Objective: 9 & 21

Standard: VG-27, 8.1-6, 8.2-5, 8.2-6

Monitoring purpose:

Question(s): What are the population trends of scrub-jays?
How is management affecting scrub-jay?

Monitoring item: Scrub-jay population demographics, reproduction, dispersal, survival, mortality, occupied & abandoned stands

Range of acceptable results: Stable to increasing trend.

Reliability: High Precision: High

Collection of Information

Who collects: District Biologist, FS Research, U.S. Fish & Wildlife Service, Partners
(district, research, co-op, etc.)

Method of collection: Trapping & banding birds, and measure reproduction, dispersion, demographics, survival, mortality. Survey selected areas and record occupied & abandoned stands & population density.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field

Cost of collections: $80,000

Analysis/Evaluation of Findings

Who conducts: District Biologist, FS Research, U.S. Fish & Wildlife Service, Partners

Method of analysis: Analysis should relate scrub management practices and vegetation conditions to dispersion, occupancy, survival, reproduction, demographics, territory size

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $5,000

Total cost of monitoring: $85,000

Report of Findings

Information to be reported: Habitat condition, occupancy, population trends, survival, dispersal trends, demographics, reproduction,

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 7, 8, 9, 10, 18 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer considered at risk.

Objective: 3, 4, 5, 6, 7, 8, & 9

Standard: VG-27, WL-1 through WL-19

Monitoring purpose:

Question(s): Are we maintaining viable populations of PETS animal species and habitats to support them?

Monitoring item: Number of PETS animals and related habitats.

Range of acceptable results: Population at least at baseline levels, any increase acceptable. with low viability ranking due to lack of information will have a monitoring design that provides high to moderate reliability/precision results.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, SO Staff, Research Staff, State Cooperators
(district, research, co-op, etc.)

Method of collection: Specific methods for each species.
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field, research, data base

Cost of collections: $40,000

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare populations with previous inventories. Correlate trends with habitat changes, if possible evaluate vigor of population.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $7,000

Total cost of monitoring: $47,000

Report of Findings

Information to be reported: Population trend of PETS animals.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 7, 8, 9, 10, 18 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer considered at risk.

Objective: 3, 4, 5, 6, 7

Standard: VG-1, -15, -16, -34, -35, -36

Monitoring purpose:

Question(s): Are we maintaining viable populations of PETS plant species and the habitats to support them?

Monitoring item: Locations and numbers of PETS plant populations.

Range of acceptable results: Populations should remain at baseline level or increase. Species with low viability ranking due to lack of information will have a monitoring design that provides high to moderate reliability/precision results.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: SO and District Ecosystem Management Staff
(district, research, co-op, etc.)

Method of collection: Permanent monitoring plots.
(specific) Seasonally/Annually

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Field/data base

Cost of collections: $6,000/year

Analysis/Evaluation of Findings

Who conducts: Ecosystem Staff, Planning ID Team

Method of analysis: Compare number of individuals in populations monitored with previous inventories. If reduced, determine cause.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $400

Total cost of monitoring: $6,400/year

Report of Findings

Information to be reported: Population trends for PETS plants/delistings.

Frequency of report: 5 Years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6, 7, 8, 9, 10, 18 — Health of natural communities is being maintained or improved.

Objective: 3-9 & 18-21

Standard:

Monitoring purpose:

Question(s): Is the health of natural forest communities being maintained or improved?

Monitoring item: Indicator species/conditions determined to indicate community health within the various communities? (Table 5.2 and Table 5.3)

Range of acceptable results: Community health should be improved/maintained. Indicator species trends should be stable or increasing.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Supervisor's Office, District Staff
(district, research, co-op, etc.)

Method of collection: Censusing of vegetative plots shown in Table 5.3.
(specific) Sampling of indicator species as outlined in Table 5.3.

Time and frequency of collection: 5 years

Source of data (field, research, data base, etc.): Field/data base

Cost of collections: $40,000/year

Analysis/Evaluation of Findings

Who conducts: Supervisor's Office, District Staff, or Contractor

Method of analysis: Compare community structure/composition with previous data. Evaluate indicator species trends with activities.

Results:

- Within range of acceptable results: Y N
- Monitoring purpose achieved: Y N
- Further monitoring required: Y N
- Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $7,800

Total cost of monitoring: $47,800/year

Report of Findings

Information to be reported: Trends toward achieving DFCs. Population trends of indicator species.

Frequency of report: 5 years

Method of reporting: 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 17 — Significant botanical, scenic, geological, and cultural/ historical sites are protected, managed, and interpreted.

Objective: 15 — Evaluate for significance 5 archeological sites each year.

Standard: HE-1 through HE-17

Monitoring purpose:

Question(s): Are heritage resource sites being evaluated and protected?

Monitoring item: Number of sites evaluated.
Report on protection efforts.

Range of acceptable results: ≥ 5 evaluations per year.

Reliability: High Precision: High

Collection of Information

Who collects: Heritage Staff
(district, research, co-op, etc.)

Method of collection: Evaluation reports to State Historic Preservation Office
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): Integrating data from documents into GIS.

Cost of collections: $5,000

Analysis/Evaluation of Findings

Who conducts: Heritage Staff, Planning ID Team

Method of analysis: Annual accomplishment report reviewed.
If not within acceptable range, make recommendations.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $1,000

Total cost of monitoring: $6,000

Report of Findings

Information to be reported: Number of sites evaluated, protection efforts.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 19 — The forest's scenery resource values are protected, enhanced, and, where necessary, restored.

Objective: 10 — Complete the inventory of existing scenic conditions and proposed scenic classes and implement the updated Scenery Management System (SMS) within 3 years of the adoption of this plan.

Standard:

Monitoring purpose:

Question(s): Are the scenic resources being protected, enhanced, and, where necessary, restored?

Monitoring item: Implementation of the SMS and management of scenery resources according to the prescriptions recommended through implementation of the SMS.

Range of acceptable results: At all times, more than or equal to 90% of all SMS identified critical/sensitve scenic corridors or viewsheds retain their inherent scenic quality.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: Forest Landscape Architects and SMS trained personnel
(district, research, co-op, etc.)

Method of collection: Observation from key visual monitoring points and by evaluating
(specific) management activities that may have affected the visual resource.

Time and frequency of collection: Continuous

Source of data (field, research, data base, etc.): Field visits, maps, GIS data.

Cost of collections: $5,000/year

Analysis/Evaluation of Findings

Who conducts: Forest Landscape Architects

Method of analysis: Review of photographs, maps, GIS data, and field data.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $2,000/year

Total cost of monitoring: $7,000/year

Report of Findings

Information to be reported: Percentage of SMS compliance for each visual quality objective.

Frequency of report: Every 2 years

Method of reporting: Written and photographic, Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Objective: 6

Standard: VG-9, -10, -11, -12, -13, -17, -21

Monitoring purpose:

Question(s): Is the group selection method producing the anticipated desired conditions in the longleaf pine ecosystem & what are the effects of group selection harvests in longleaf pine?

Monitoring item: Tree stem diameter and frequency, seed crops, regeneration and survival, seedling growth and development, pine midstory development and distribution, costs and returns of implementation, costs and effects of burning within harvest units, plant species frequency and distribution, PETS species population trends/habitat conditions, management indicator species (MIS) plant/animal population trends/habitat conditions.

Range of acceptable results: Researchers and partners will be involved in determining the appropriate and needed trigger points for changing management.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, Forest Staff, Forest Research, Partners, Collaborators (district, research, co-op, etc.)

Method of collection: (specific) Monitoring will be designed to allow comparison of effects to desired community conditions, MIS and PETS population trends/habitat conditions between areas treated with group selection vs. areas not treated.

Time and frequency of collection: To be determined later.

Source of data (field, research, data base, etc.): Field and research

Cost of collections: Unknown

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Planning ID Team, Research, Partners, Collaborators

Method of analysis: Researchers will be involved in designing monitoring scheme along with the appropriate statistical analysis needed to provide reliable information to determine the need for change.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: Unknown

Total cost of monitoring: Unknown

Report of Findings

Information to be reported: Report findings as available.

Frequency of report: 5 years or as findings are available

Method of reporting: Efforts and any findings in the 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Objective: 18

Standard:

Monitoring purpose:

Question(s): Is the irregular shelterwood method producing the anticipated desired conditions in the slash pine ecosystem?

Monitoring item: Tree stem diameter and frequency, seed crops, regeneration and survival, pine midstory development and distribution.

Range of acceptable results: Baseline to be determined in project monitoring design.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, Forest Staff, Forest Research, Partners, Collaborators
(district, research, co-op, etc.)

Method of collection: To be determined later.
(specific)

Time and frequency of collection: To be determined later.

Source of data (field, research, data base, etc.): Field and research

Cost of collections: Unknown

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Planning ID Team, Research

Method of analysis: To be determined later.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: Unknown

Total cost of monitoring: Unknown

Report of Findings

Information to be reported: Report findings as available.

Frequency of report: 5 years or as findings are available

Method of reporting: Efforts and any findings in the 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Objective: 18

Standard:

Monitoring purpose:

Question(s): What are the effects of irregular shelterwood harvest on slash pine?

Monitoring item: Growth and development of seedlings, costs and returns of harvesting and burning, plant species frequency and distribution, PETS effects.

Range of acceptable results: Baseline to be determined in project monitoring design.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, Forest Staff, Forest Research, Partners, Collaborators
(district, research, co-op, etc.)

Method of collection: To be determined later.
(specific)

Time and frequency of collection: To be determined later.

Source of data (field, research, data base, etc.): Field and research

Cost of collections: Unknown

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Planning ID Team, Research

Method of analysis: To be determined.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: Unknown

Total cost of monitoring: Unknown

Report of Findings

Information to be reported: Report findings as available.

Frequency of report: 5 years or as findings are available

Method of reporting: Efforts and any findings in the 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 — An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Objective: 20

Standard: VG-40

Monitoring purpose:

Question(s): Have old-growth stands been designated in each community type?

Monitoring item: Acres of old growth by community type designated in CISC.

Range of acceptable results: Within 45-55% of acres in objective in 5 years.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, Forest Staff
(district, research, co-op, etc.)

Method of collection: Annual query of data base, GIS, CISC
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): CISC

Cost of collections: $300

Analysis/Evaluation of Findings

Who conducts: Planning Staff and Planning ID Team

Method of analysis: Compare actual with planned progress

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $100

Total cost of monitoring: $400

Report of Findings

Information to be reported: Report findings as available.

Frequency of report: 5 years or as findings are available

Method of reporting: Efforts and any findings in the 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.
9

Objective: 21

Standard:

Monitoring purpose:

Question(s): What are the habitat conditions for the major habitat associations?

Monitoring item: Acres of each habitat association by major forest type age class.

Range of acceptable results: Within 45-55% of acres objective in 5 years.

Reliability: Moderate Precision: Moderate

Collection of Information

Who collects: District Staff, Forest Staff
(district, research, co-op, etc.)

Method of collection: Query GIS, CISC
(specific)

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): GIS, CISC

Cost of collections: $300

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Planning ID Team, Research

Method of analysis: Compare planned with actual progress.

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $100

Total cost of monitoring: $400

Report of Findings

Information to be reported: Report findings as available.

Frequency of report: 5 years or as findings are available

Method of reporting: Efforts and any findings in the 5-year review

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 6 8 9 10 — Adequate habitat is provided for threatened, endangered, and sensitive species so populations are no longer considered at risk.

Objective: 8

Standard: WL-1

Monitoring purpose:

Question(s): What are the effects of the reduced foraging standards on the Apalachicola NF.

Monitoring item: Cluster activity status, group size, Groups attempting to nest, nesting success, eggs laid per active group, chicks reaching banding age, number fledged per active group

Range of acceptable results: A decline over 3 consecutive years for one variable at 0.05 significance level, comparing before/after in treated/ untreated groups, initiate section 7 consultation

Reliability: Moderate Precision: High

Collection of Information

Who collects: District Biologist
(district, research, co-op, etc.)

Method of collection: Select a random sample of 200 active clusters to use as permanent monitoring points
(specific)

Time and frequency of collection: Annually, April-June

Source of data (field, research, data base, etc.): Field

Cost of collections: $10,000/year

Analysis/Evaluation of Findings

Who conducts: District Biologist, SO Biologist

Method of analysis: A variety of analysis including paired comparisons, time series, before and after, ANOVA (analysis of variance)

Results:

Within range of acceptable results: Y N

Monitoring purpose achieved: Y N

Further monitoring required: Y N

Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $2,000/year

Total cost of monitoring: $12,000/year

Report of Findings

Information to be reported: Area treated under reduced foraging and measured variables.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

Monitoring Task Sheet

Goal/DFC: 1 through 19 — An adaptive, ecological approach is used in multiple-use management by blending the needs of people with environmental values to ensure that forest ecosystems are diverse, healthy, productive, and sustainable.

Objective: 1 through 21

Standard: All

Monitoring purpose:

Question(s): Did we do what we said we would do?

Monitoring item: Decision documents and field review of implementation.

Range of acceptable results: All projects are documented and implemented in accordance with the Forest Plan direction.

Reliability: High Precision: High

Collection of Information

Who collects: District Staff, Planning Staff
(district, research, co-op, etc.)

Method of collection: Sample of decision documents per administrative unit.
(specific) Sample of decisions field checked per administrative unit.

Time and frequency of collection: Annually

Source of data (field, research, data base, etc.): All resource area project decisions.

Cost of collections: $5,000

Analysis/Evaluation of Findings

Who conducts: Planning Staff, Ad Hoc Planning ID Team

Method of analysis: Determine if project proposals and decisions move the forests toward Forest Plan DFCs, goals, and objectives and are implemented correctly.

Results:

Within range of acceptable results: Y N
Monitoring purpose achieved: Y N
Further monitoring required: Y N
Recommended actions: Y N

Recommended actions implemented: (Date)

Cost of A/E: $20,000

Total cost of monitoring: $25,000

Report of Findings

Information to be reported: Results of finding including projects reviewed and relationship to Forest Plan direction.

Frequency of report: Annually

Method of reporting: Annual M&E Report

Target audience for report: General

APPENDIX F

Table F.1

Summary of Allocations

	Apalachicola NF	Ocala NF	Osceola NF	Totals
ROS Class - % of Total Acres				
Primitive	6.65	7.50	7.19	7.03
Semiprimitive Nonmotorized	8.90	3.94	13.07	7.79
Semiprimitive Motorized	16.93	20.63	19.27	18.58
Roaded Natural	67.41	66.06	58.87	65.64
Rural	0.13	0.37	1.60	0.43
Not Assigned	0.00	1.51	0.00	0.53
VQO Class - % of Total Acres				
Preservation	7.32	8.21	16.48	9.5
Retention	69.60	25.32	62.24	53.68
Partial Retention	23.02	13.78	20.2	19.46
Modification	0.06	51.57	0.80	17.33
Maximum Modification	0.00	1.12	6.36	0.38
Management Area - Acres				
0.1 Trailless Wilderness	8,090	5,975		14,065
0.2 Wilderness with Trails	24,612	22,222	13,660	60,494
0.3 Wild and Scenic River	18,529	2,320		20,849
0.4 Wilderness Study Area	5,635		4,396	10,031
1.1 Remote Wetland			17,116	17,116
2.1 Research Natural Area	489		381	870
2.2 Experimental Forest			2,802	2,802
2.3 Genetic Resource Management		81		81
3.1 Special Interest Area	7,659	5,432	2,061	15,152
4.1 Minimum Development, Nonmotorized			1,281	1,281
4.2 Minimum Development, Motorized		5,572	5,140	10,712
4.3 Low Recreational Development		1,362		1,362
4.4 Moderate Recreational Development	16,606	3,979	688	21,273
4.5 Developed Recreation Area	740	1,433	277	2,450
5.1 No Hardwood/Cypress Timber Production		17,140		17,140
7.1 Longleaf/Slash Pine, Adaptive Management, RCW Management	376,486	35,777	95,477	507,740
7.2 Longleaf/Slash Pine, Adaptive Management, RCW, Cattle	44,071		34,949	79,020
7.3 Longleaf/Slash Pine, Adaptive Management, No RCW Management		58,544	16,504	75,048
8.1 Sand Pine, Natural Regeneration, Large Openings		14,810		14,810
8.2 Sand Pine, Mixed Regeneration, Moderate Openings		201,143		201,143
8.4 Scrub-Jay Management		1,874		1,874
9.1 Pinecastle Bombing Range		5,698		5,698
9.2 Forest/Urban Interface	72,572			72,572
9.3 Choctawhatchee Lands	1,153			1,153

ROS - Recreation Opportunity Spectrum VQO - visual quality objective RCW - red-cockaded woodpecker

Table F.2

Probable Outputs (1st 10-Year Period)*

	Apalachicola NF	Ocala NF	Osceola NF	Totals
Timber Yield (MMCF)	35.2	58.9	8.9	103
Long-Term Sustained-Yield Capacity (MMCF)	80	73	22	175
Pine Thinnings (Acres)	40,540	3,054	8,421	52,015
Group Selection (Acres)	28,000	2,500	2,000	32,500
Longleaf Pine Restoration (Clearcut) (Acres)	8,152	2,947	700	11,799
Longleaf Pine Restoration (Selection) (Acres)			8,000	8,000
Sand Pine Clearcut (Acres)	0	40,000	0	40,000
Irregular Shelterwood (Acres)	1,500	78	300	1,878
Road Reconstruction (Miles)	215	141	50	406
Recreation Use (MMRVD)	4.4	21.8	5.4	31.6
Wildlife and Fish User-Days (MMWFUD)	.5	2.0	.4	2.9

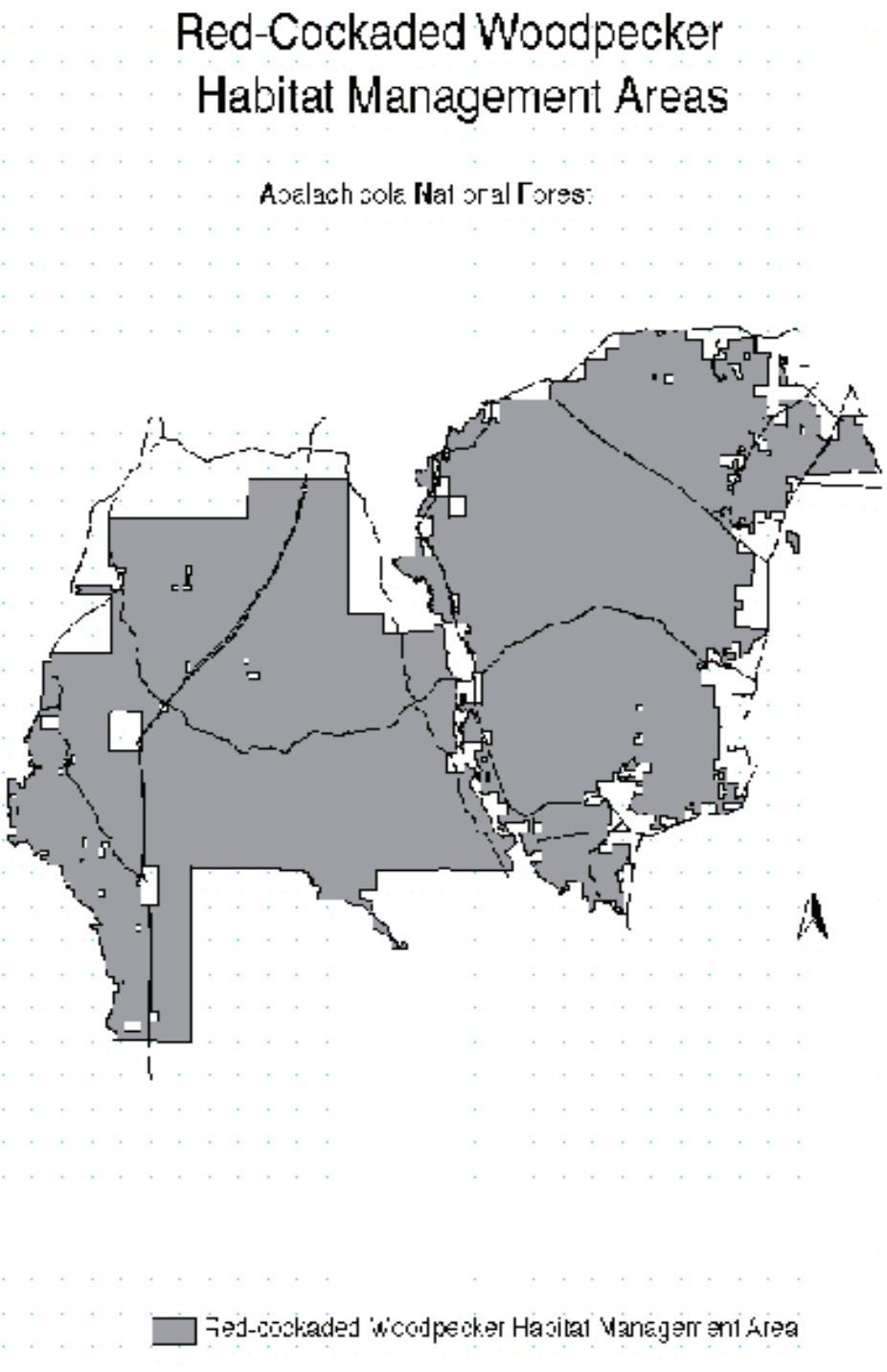
*These outputs are estimates based on modeling and full budget implementation levels.
MMCF - million cubic feet
MMRVD - million recreation visitor-day
MMWFUD - million wildlife user-day

Table F.3

Estimated Annual Budget

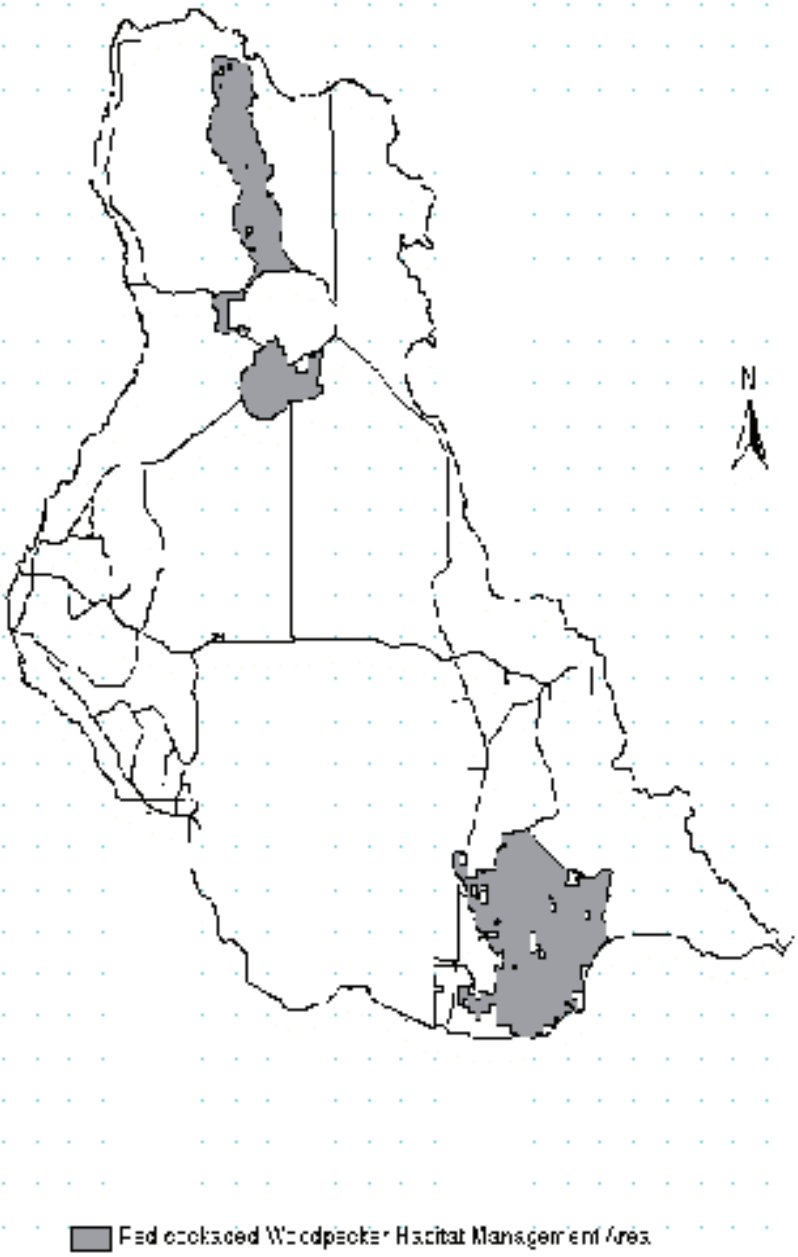
Recreation Includes trail and recreation facilities construction and maintenance, recreation management, and heritage	$3,861,300
Wildlife and Fish Includes appropriated and K-V* funds	$1,500,000
Range	$157,200
Timber Sales Includes timber sale preparation and administration	$3,685,900
Silviculture Includes appropriated and K-V reforestation, timber stand improvement, and silvicultural exam	$1,317,000
Soil, Water, and Air	$143,000
Minerals	$85,000
Lands Includes special uses, land exchange, and landlines, but does not include land acquisition	$383,200
Facilities and Roads Includes road construction and maintenance	$1,434,800
Ecosystems Includes planning, inventory, and monitoring	$1,099,900
Fire	$2,401,000
Law Enforcement Most of this is funded directly from Washington Office	$460,400
General Administration	$2,525,700
TOTAL	**$19,054,400**

K-V - Knutson-Vanderberg


Red-Cockaded Woodpecker
Habitat Management Areas
Apalachicola National Forest
Red-cockaded Woodpecker Habitat Management Area

Red-cockaded Woodpecker
Habitat Management Areas

Ocala National Forest



Red-cockaded Woodpecker

Habitat Management Areas

Osceola National Forest