



# Florida's Forest Resources Plan

*Setting the Course for 2030<sup>1</sup>*



## **III. Florida's Forest Resources: Action Plan for 2006-2010**

**December 2005**



**Florida Department of Agriculture  
and Consumer Services**

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# Florida's Forest Resources Plan

## *SETTING THE COURSE FOR 2030*

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## FOREWORD

In the fall of 2004 the Division of Forestry began a project that asked the public, Division staff and forestry experts, “What do you envision Florida’s forests should be in 2030?” A consensus that emerged was: “Florida’s forests should be abundant, with healthy, functioning ecosystems that are managed to provide social, ecological, and economic values on a sustainable basis.”

My initial internal reaction was that we want to make sure that what we have today is what we have in 2030! However, when the recommendations for making sure Florida’s forests look the desired way were unfolding, my personal belief concerning Florida’s forests were reinforced. The truth is, the management of Florida’s forests, be it on public or private land, is a constant challenge; barriers to success seem to escalate on a daily basis.

Fortunately, the Division of Forestry operates under the mindset: “Create solutions; don’t obsess over problems”. I believe this Florida’s Forest Resource Plan adheres to this mindset. It offers short and long-term recommendations that the Division can work toward that should help create forests in 2030 that Florida can boast about. Don’t be fooled: this document is not a solution unto itself. It is simply another tool we can use to help guide us to success. Solutions will result from the sweat and creativity of every person dedicated to Florida’s forests.

My hat is off to every person who assisted with the development of this document. Words cannot express the gratitude I feel for the time and effort they put into this. I believe the best way to show my appreciation is to move forward with the implementation of the recommendations contained within this document.

I know in the future that Florida’s forests will be abundant, with healthy, functioning ecosystems that are managed to provide social, ecological, and economic values on a sustainable basis. In 2030, when people reflect on why this is so, they will realize that, in part, it is because of the implementation of recommendations found in this document.

*Michael C. Long, Director  
Division of Forestry*



## INTRODUCTION

### Why Was This Plan Developed?

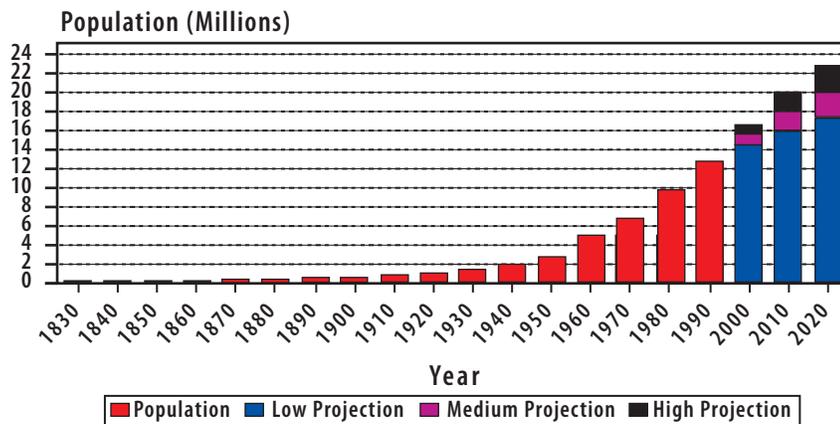
For more than 12,000 years, Florida’s forests have been sustaining people and enhancing their quality of life—from the earliest indigenous people, to Spanish explorers to the 17 million people who call Florida their home today. We look to forests as a source of wood, a filter to help keep our water clean, and a place to go to relax and unwind after a busy week.

Today, nearly half of our state is forested. In 1995, 15 million acres supported 15 billion cubic feet of growing wood<sup>1</sup>, enough to circle the planet more than 15 times or make five trips to the moon and back. Florida’s forests have survived wildfires, insects and diseases, hurricanes, droughts, tornadoes, rising and falling seas and floods.

Despite the state’s numerous state forests, national forests, and other public lands, the future of Florida’s forests rests primarily in the hands of private landowners, who own 80 percent of the state’s 15 million forested acres. How will these owners care for their land in the future? Will they sell it for development? Clear it for agriculture? Manage it with the future in mind or harvest it for a quick return on their investment?

Will they sustain its many values? Protect it from wildfire, disease, and insects? Make it available for thousands of recreational users who hunt, fish, bird-watch, canoe or hike? The answers to these crucial questions will determine the future of Florida’s forests.

Figure 1: Projected Population Growth, Florida, 2020 <sup>2</sup>



The most significant factors expected to affect both the amount and quality of forests that residents enjoy in the future include:

<sup>1</sup> As of the 1995 USDA Forest Service Survey

<sup>2</sup> Florida Statistical Abstract, University of Florida

- *Population* has been increasing at exponential rates; another 10 to 12 million residents are expected by the year 2030. (see fig. 1)
- *Forestland conversion* to non-forest uses has reduced the number of forested acres from approximately 20 million in the 1930s to approximately 14 million acres today, a 30 percent drop.<sup>1</sup> Figures 2 and 3 on page 4 illustrate the dramatic change.
- *Non-native plants and animals* are threatening agricultural crops and invading forested ecosystems, out-competing native species
- *Wildfires*—and the potential for catastrophic losses of lives and property—will increase as more people live in and around forests
- *Fragmentation of large forested tracts* into smaller ownerships and varied land uses will divide habitats and make forest management relatively more costly

All of these forces are threatening to irrevocably change the state’s ecological integrity, its character, and the availability of forest-related goods and services. Unless we plan now to manage some of these forces, Floridians will see their forest values greatly diminished.

This Plan for Florida’s forests was based on the following steps, shown in greater detail in the Appendix starting on page 18.



**Step One: Assessing the Present Condition of Florida’s Forest Resources.**

This document is available through the Division of Forestry (DOF). This step describes the present situation and trends. We need to understand where we are in order to decide where we want to go.



**Step Two: Defining the Desired Future Condition (DFC).**

This step describes the conditions we want in 2030 as compared to present conditions. The DFC was developed with input from a variety of sources including public workshops, internet responses, DOF personnel, and a Blue Ribbon Panel of forest owners and users. In addition, the Blue Ribbon Panel developed a “vision” for Florida’s forests that they believe encapsulates the desired future conditions.



**Step Three: Identifying Major Barriers to Achieving the DFC.**

This includes both natural and human factors; for example, exotic invasives or rapid population growth.



**Step Four: Identifying Actions by DOF and Others to Help Mitigate or Remove Barriers.** Examples could include aggressive programs to eradicate exotic invasive species, or growth management strategies.

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<sup>1</sup> *Florida’s Forests*, 1995. Mark J. Brown, USFS, Southern Research Station, Resource Bulletin SRS-48 and Est. of Florida Division of Forestry based on reported decline of 80,000 acres per year (1995 to 2005)

## THE CHANGING FACE OF FLORIDA'S FORESTS....

**Figure 2: Potential Forest Cover in Florida in 1934**



Source: USDA Forest Service, 1934

**Figure 3: Forest Cover in Florida 2003**



Source: Florida Wildlife Commission, 2003



## ***A Vision for Florida's Forests...***

Florida's future forests should be abundant, with healthy, functioning ecosystems that are managed to provide social, ecological, and economic values on a sustainable basis.

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### ***The Desired Future Condition of Florida's Forests...***



- Sustained levels of water quality and quantity in aquifers protected by forested landscapes
- A healthy sustainable forestland base supporting biodiversity of native plant/animal species and their habitat
- A stable forestland base where the most environmentally important forests are conserved/protected from development
- Large blocks of contiguous forest to support species such as Black Bear, Florida Panther and other interior-dwelling species
- Reduction of non-native invasive species that are out-competing native trees
- Restored declining native species such as Longleaf Pine, Atlantic White Cedar, and Cypress
- A healthy and diverse urban forest, which will be home to nine out of 10 Florida residents by 2020
- A forest that is growing valuable wood products in demand by the global marketplace
- Forestlands that are open to a variety of public recreational pursuits



## **ACTION PLAN: DIVISION OF FORESTRY 2006-2010**

### **Mitigating Major Barriers to Achieving the Desired Future Condition**

The proposed high-priority barriers and actions on the following pages resulted from a four-step process that included input and recommendations from the general public, DOF field personnel, and a Blue Ribbon Panel of forest owners, advocates, and users. While the recommendations are directed toward DOF, individuals and organizations with an interest in Florida's forests are encouraged to revisit their own roles in making the Desired Future Condition a reality. Success is likely to come only from a coordinated, concerted effort that involves as many stakeholders as possible.

Each of the actions is coded as follows:

- S -- for short term actions defined as years 1 and 2*
- L -- for longer-term actions defined as years 3, 4, and 5*
- I -- for actions that will be initiated by the Division of Forestry (DOF)*
- C -- for actions where DOF will collaborate with other organizations*



***Barrier: Lack of a forest resource education program that focuses on forest resource values targeting the general public and government policy leaders***

The vast majority of today's residents are unaware of the benefits being lost as the state's forestland base shrinks. By 2030 there will be close to 30 million Florida residents, most of whom will not be cognizant of forest values. Government policy leaders need solid information about forest resources in order to make informed decisions about Florida's future.

***Proposed Action A.***

Develop "Educational Forests" in partnership with communities and school systems and create a template for others to use. **SI**

***Proposed Action B.***

Establish a benchmark on current public opinion and track whether messages are changing opinions. **SC**

***Proposed Action C.***

Develop and manage a comprehensive forest resource education program within the Division of Forestry and acquire or designate adequate staff to manage it. **SC**

***Proposed Action D.***

Maintain Teacher's Forestry Tour and conduct a similar tour for government policy leaders. **SC**

***Proposed Action E.***

Develop media messages to be ready for emergencies such as fire, pest outbreaks, etc, in collaboration with entities such as the Society of American Foresters and University of Florida. **LI**

***Proposed Action F.***

Develop a specific forest resource training system for schools and collaborate with the Florida Department of Education to include related Florida Comprehensive Assessment Test (FCAT) questions. **LC**

***Proposed Action G.***

Develop forestry management programs for broadcast media. **LC**

***Proposed Action H.***

Work with Welcome Stations and real estate agents to educate newcomers on forestry issues. **LC**



## **Barrier: Lack of financial incentives for private landowners and industry**

Non-industrial private landowners and the forest industry are the “majority stakeholders” in Florida’s forests. Their number is approaching 400,000 and will exceed half a million by the year 2030. As land values spiral upward, it is difficult for many not to sell their property. Financial incentives are needed to enable owners to continue practicing good forestry and keep Florida green.

### **Proposed Action A.**

Encourage support for the Rural Land Stewardship DCA and Rural and Family Land Protection Program to compensate private landowners for development rights and land management changes. **SI**

### **Proposed Action B.**

Review Conservation Use Assessment Programs in other states (such as Georgia’s, which protects land and gives tax relief) for application in Florida. **SI**

### **Proposed Action C.**

Increase state cost-share dollars for landowners who have implemented silvicultural practices, such as reforestation and timber stand improvement. **SI**

### **Proposed Action D.**

The Division of Forestry and the rest of the forestry community should be actively involved in the development of future Farm Bills. **SC**

### **Proposed Action E.**

Establish a method to determine if sustainable silvicultural practices are being applied before awarding incentives. **LI**

### **Proposed Action F.**

Improve tax structure to encourage sustainable forest practices, including eliminating the Federal Estate Tax. **LC**

### **Proposed Action G.**

Quantify the economic value of social and ecological benefits of forests to demonstrate the payoff of forest-friendly policy and incentives. **LC**

### **Proposed Action H.**

Research Timberland Investment Management Organizations’ tax structure and seek equitable treatment for all private landowners. **LC**

### **Proposed Action I.**

More aggressively market Florida forest products, especially where there is the potential to expand. **LC**



## ***Barrier: Under-funded public forestland management***

Managing to sustain forest ecosystems is a complex process. More funds and personnel are needed to carry out management activities for wildlife habitat maintenance, timber management, recreational opportunities and oversight, watershed protection, non-native invasive species control, and a host of other needs. The latest forest survey indicated almost half of Florida's forests are in need of treatment, a situation made more urgent by the devastating hurricane season of 2004.

### ***Proposed Action A.***

Promote sustainable commodity production based on fair market value while protecting ecological integrity on state lands. S C

### ***Proposed Action B.***

Request needed land management funds and positions as part of the annual state Legislative Budget Request, and support a system where agencies can ask for what they really need. S C

### ***Proposed Action C.***

Establish a permanent means for generating land management funds. S C



## **Barrier: Lack of incentives for, and diversification of, Florida's forest industries**

Florida's forest industries have more than 4 million acres dedicated to growing mostly pine pulpwood. Global markets are undercutting prices with cheaper labor and few or no environmental protections. Diversification is necessary if Florida's industry is to prosper.

### **Proposed Action A.**

Establish a Forestry Utilization Specialist in the Division of Forestry to develop and expand markets for Florida forest products. **S I**

### **Proposed Action B.**

Explore opportunities resulting from Trade Agreements, including the Central American Free Trade Agreement (CAFTA), and share results with forest industry. **S I**

### **Proposed Action C.**

Utilize the Department of Agriculture and Consumer Services to enhance marketing of all Florida forest products. **S C**

### **Proposed Action D.**

Partner with forestry industry, University of Florida and others to educate the public about how better wood utilization can improve forest health. **S C**

### **Proposed Action E.**

Accelerate the forest inventory system based on continuous data sampling necessary for sustainable forest management. **L I**

### **Proposed Action F.**

Partner with southern states to retain and attract forest industry to the region. **L C**

### **Proposed Action G.**

Work with energy agencies, forest industries, and the academic community to better utilize waste, biomass (with acceptable emissions), and small diameter trees for other purposes; identify available grants and incentives for all users. **L C**



## **Barrier: Forest parcelization and fragmentation and associated urban sprawl**

Florida is one of the fastest-growing states in the country. By 2030 another 10 to 12 million people will need housing, shopping, schools, and transportation systems. Another 2 to 3 million acres of forest land will disappear. To mitigate this impact, development should be environmentally sensitive and targeted toward the least sensitive sites.

### **Proposed Action A.**

Create a model for an “ideal” development that is fire and forest sensitive and share with developers and local planners. **S I**

### **Proposed Action B.**

Encourage one joint multiple-use management plan for adjacent forest landowners. **SI**

### **Proposed Action C.**

Actively support public land acquisition and conservation easements: **S I, SC**

- Accelerate the spend-down of existing dollars with rapidly rising land values.
- Lead a unified approach with other agencies.
- Develop model language for conservation easements that require long term management using sustainable forestry.
- Seek increases in acquisition dollars, e.g., Forest Legacy.
- Seek to diminish the time and financial lag between current real estate values and appraised land values.
- Place more emphasis on easements and on seeking opportunities to consolidate, connect, and enlarge existing publicly owned forestlands to create large contiguous blocks of conserved forest.

### **Proposed Action D.**

Provide leadership in community urban forestry entities to sustain the tree canopy in established and rapidly developing communities. **S I**

### **Proposed Action E.**

Target financial incentives, and penalties, to private owners of large contiguous forest parcels to discourage parcelization. **S C**

### **Proposed Action F.**

Collaborate with other public agencies to identify “least sensitive sites” with incentives to develop these lands first. **L C**

### **Proposed Action G.**

Work proactively with local governments on land use/zoning as well as with road agencies on the design and location of future roads. **L C**



## ***Barrier: Inadequate control of new and existing non-native, invasive species***

Non-native invasive species are crowding out native plants and animals, threatening the health of our forest ecosystems. Some invasives simply out-compete native species; others are insects and diseases that attack unchecked in their new environment. As global trade continues, increasing numbers of exotics enter the country undetected. Once established, controls are costly and generally unaffordable by a small forest landowner.

### ***Proposed Action A.***

Provide technical and cost-share assistance to landowners for invasive species treatment and add personnel who are knowledgeable about effective controls. **S I**

### ***Proposed Action B.***

Encourage and support the Commissioner of Agriculture on the issue of controlling invasives, including working with the Exotic Pest Plant Council, and work with port of entry cities to mitigate entries. **S I**

### ***Proposed Action C.***

Develop a unified strategy with stakeholders to inform Government policy leaders about the need for a more aggressive approach to control invasive species. **S C**

### ***Proposed Action D.***

Partner with other agencies to educate policy makers and the public on invasive species; explain what they are, how they are introduced, and how to control them. **S C**

### ***Proposed Action E.***

Provide mechanisms for mutual aid agreements between public agencies and private landowners, including owners of large tracts, to control invasive species. **L I**

### ***Proposed Action F.***

Partner with other agencies to promote research on control mechanisms for invasive species. **L C**

### ***Proposed Action G.***

Work with southern states to encourage more federal funding for invasive species control. **L C**



## **Barrier: Insufficient use of prescribed fire**

Fire is essential to many of Florida's ecosystems, regenerating certain species and returning nutrients to the soil. The exclusion of fire from many sites has affected ecosystem health, greatly increased the potential for catastrophic wildfires, and diminished wildlife habitats. The use of prescribed fire as a management tool is currently far below its potential, particularly on private forests. Obstacles to its increased use need to be addressed and mitigated.

### **Proposed Action A.**

Form additional prescribed fire teams to provide affordable services to public and private forestland owners. **S I**

### **Proposed Action B.**

Accelerate training opportunities for potential new prescribed fire team members. **S I**

### **Proposed Action C.**

Promote the benefits of prescribed burning, including a highly visible media campaign in major metropolitan areas. **S I**

### **Proposed Action D.**

Develop incentives to retain experienced prescribed fire personnel so that fire's role in managing and restoring ecosystems is better defined and applied. **S I**

### **Proposed Action E.**

Partner with research to improve smoke management techniques. **L C**



## ***Barrier: Insufficient forest policy and research***

Florida's forest policy is vague and piecemeal. Before more forests are lost to non-forest uses, a clear and comprehensive policy statement needs to be adopted by the Legislature and used as a guide for conserving remaining forests. More applied research is needed to address some of the more pressing issues forestry is facing, including; how to mitigate non-native invasive species, particularly on small private ownerships, promoting models for development that are sensitive to important forest lands, and better techniques for smoke management during prescribed burning.

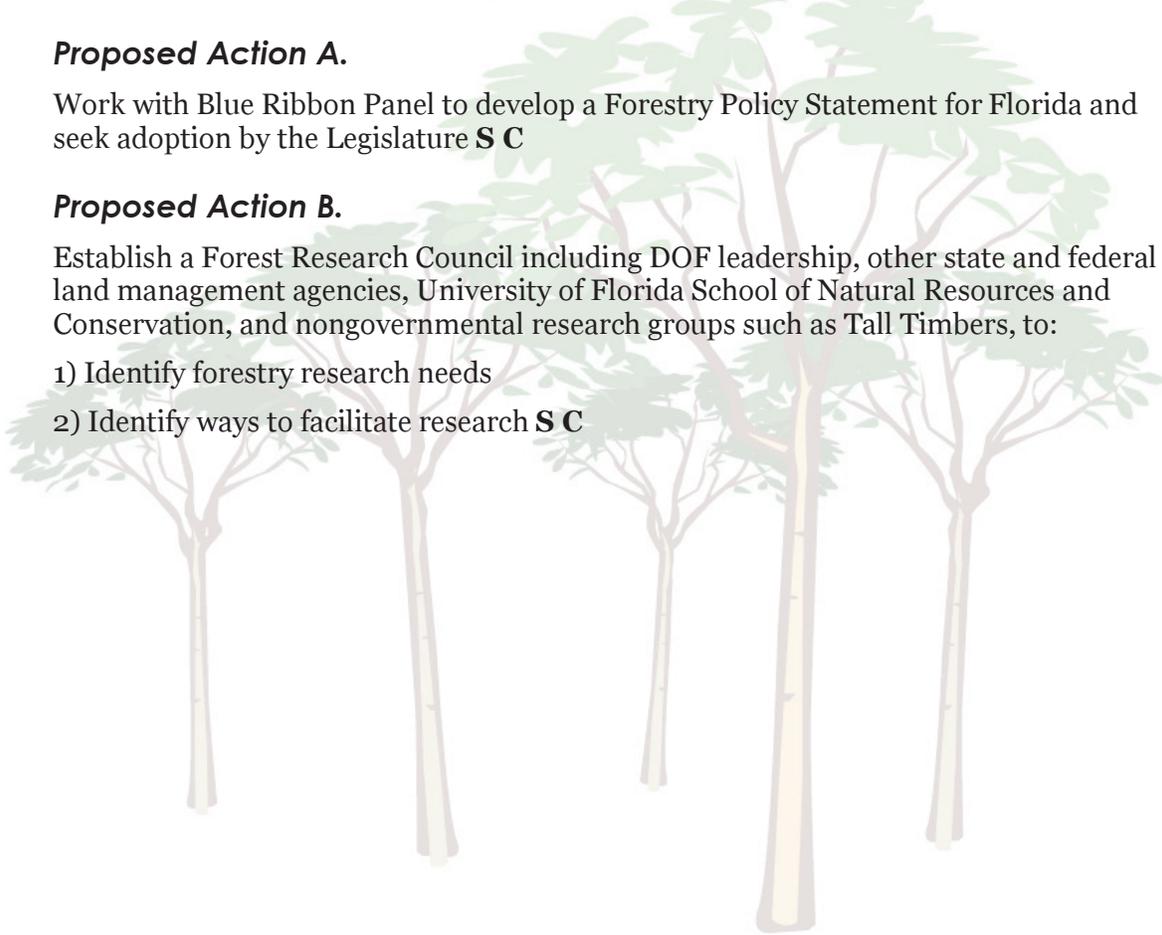
### ***Proposed Action A.***

Work with Blue Ribbon Panel to develop a Forestry Policy Statement for Florida and seek adoption by the Legislature **S C**

### ***Proposed Action B.***

Establish a Forest Research Council including DOF leadership, other state and federal land management agencies, University of Florida School of Natural Resources and Conservation, and nongovernmental research groups such as Tall Timbers, to:

- 1) Identify forestry research needs
- 2) Identify ways to facilitate research **S C**





## APPENDIX

### Step One: Key Points From the Present Condition of Florida's Forest Resources

The following key points are highlights from the full Assessment, available on the Florida Division of Forestry web site: <http://www.fl-dof.com/plansupport/futureforestresources.html>.

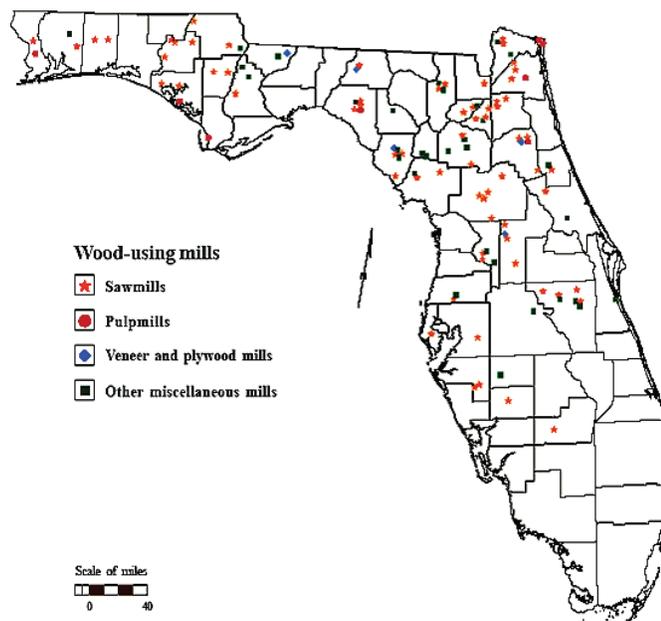
#### Historical Perspective: Key Points

- Heavy harvesting liquidated most of the virgin forest in the late 1880s to early 1900s
- Wildfires from lightning strikes wreaked havoc on the landscape for decades
- Large scale forest industry became established during the 1930s and 1940s, reforesting much of the state
- The Florida Forestry Association and Florida Board of Forestry (precursor to the Division of Forestry) formed in late 1920s
- From the late 1950s to present the trend has been toward more environmental regulations

#### The Importance of Our Forests: Key Points

*Timber and the Forest Products Industry...*

Figure 3: Primary Wood Using Mills in Florida, 1995



Created from mill canvas data by J. McCollum, USDA Forest Service

**Table 1: Pulp Mill Facility Production Changes  
Florida, 1985-2003**

Owner	Location	Million Tons 1983	Million Tons 2003
G-P	Palatka	1.4	1.4
SSCC	Fernandina Beach	1.0	2.7
Rayonier	Fernandina Beach	1.1	1.1
PCA	Clyattville	1.4	1.4
Buckeye	Perry	1.1	1.1
Gilman	St. Marys	1.6	0
St. Joe	Port St. Joe	1.8	0
Alton Box	Jacksonville	1.8	0
Champion	Jacksonville	1.9	0
<b>Totals</b>		<b>13.1</b>	<b>7.7</b>

- More than half a billion cubic feet of wood is harvested annually
- 130,000 jobs and \$16 billion in value added benefits come from timber industry
- Almost 100 processing mills and nearly 1800 firms associated with processing wood products spanned the state in 1995
- Since 1995, there has been a 10% decline in processing capacity

- Since 1983, pulp mill production has fallen by 40%; four mills have closed.
- Non-Industrial Private Forest (NIPF) lands will play a greater role in supplying wood, yet a profile of newer owners shows an increasing reluctance to cut trees
- International trade and other factors are having a negative impact on Florida's timber industry

***Urban and Community Forestry...***

- By the year 2020, nine out of 10 Florida residents will live and work in urban or suburban environments<sup>1</sup>
- Urban trees and pockets of forest have a cooling effect that saves up to 5% on home energy bills<sup>1</sup>
- Urban trees used for landscaping add 5-7% to the sale of a home<sup>1</sup>
- Florida has more than 170 Tree Cities, about a third of all entities, and an active statewide Urban Forestry Council
- State urban forestry technical assistance positions were eliminated by budget cuts in 1995

***Recreation...***

- More than 10 million acres of forested land is available for recreational pursuits
- Outdoor recreation is a multibillion-dollar industry in Florida estimated to be generating close to \$4 billion in direct expenditures annually
- Parcelization and more posting of NIPF lands will diminish the available forest lands for some recreational pursuits

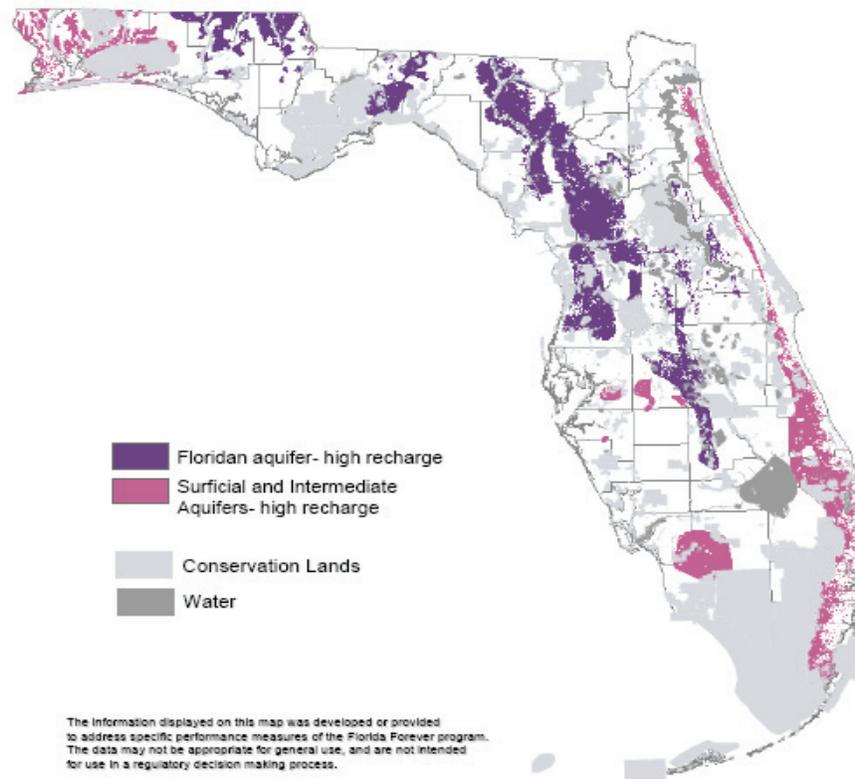
***Clean Water...***

- 17 million residents, millions of tourists and seasonal residents, and the agricultural industry depend on clean, abundant water

<sup>1</sup> Strategic Plan for the Florida Urban Forestry Council, 2000.

- Forests help clean water by filtering nutrients, debris, and sediment and stem potential flooding with their water-holding capacity
- Florida's population will increase by 10 to 12 million by 2030, making forest cover more important to clean, abundant water than ever
- Forests protect underground water that supplies 90% of Florida's drinking water (fig. 4)

**Figure 4: Aquifer Recharge, Florida**



Source: FNAI, from Florida Geological Survey, Water Management Districts, other water resource experts

### *Other Contributions...*

- Hunting leases, which can provide landowners from \$3 to \$10 per acre per year, depending on forest health
- Pine straw landscape mulch, which can yield from \$50 to \$100 per acre
- Shiitake mushrooms can be grown on decaying wood in a forest environment
- Fuel wood can provide home heating and heat or power to commercial enterprises
- Specialty products such as Spanish Moss and pine cones are harvested for floral arrangements
- Medicines from plants such as the saw palmetto in central and south Florida
- Wildlife habitat for more than a hundred species, some of them Threatened or Endangered, including the Florida Panther, Black bear, Key deer, Bald Eagle, and Red Cockaded Woodpecker

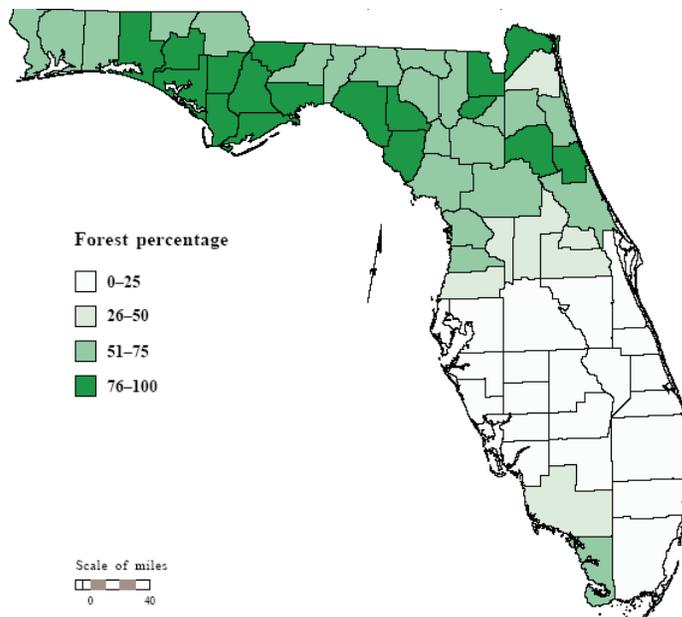
- Biological diversity that supports thousands of plants and animals
- Habitat for some of the 55 threatened and endangered plants on the Federal list and the 536 plants on the state list <sup>1</sup>
- Carbon sinks for worsening CO<sub>2</sub> levels from the burning of fossil fuel

## Extent and Location of Our Forests

Florida stretches from Pensacola in the northwest, to Miami in the southeast, then another 150 miles southwest to Key West, the southernmost point in the continental United States. The state features more than 34.6 million acres of land and 7.5 million acres of water. A little less than half (47%) of the land area is forested. The entire state is considered coastal plain. Elevations vary from a high of 345 feet in the middle of the state to sea level at the perimeter. The semi-tropical climate supports more species of trees than any other state except Hawaii. Water and wetlands are abundant, with about 5.2 million acres classified as wetland timberland. Toward the southernmost end of the peninsula, subtropical hardwood hammocks and ridges are found.

**Figure 5: Percentage of Forest Cover by County, Florida, 1995**

Source: USDA Forest Service



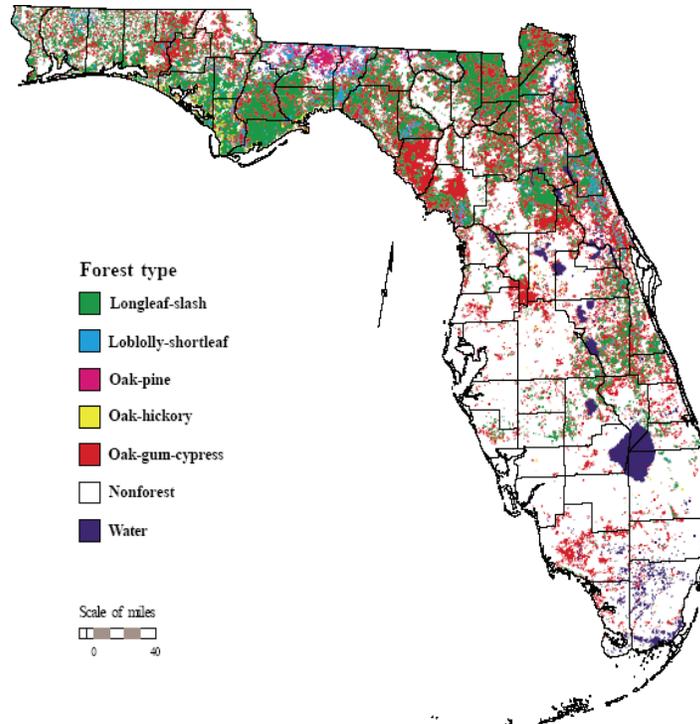
### Key Points

- The northern half of the state has 82% of the timberland, with the northwest “Panhandle” the most forested at 77%
- Almost half the state’s land area is forested, with more than 90% classified as timberland, capable of growing at least 20 cubic feet of wood per acre per year
- More than 15 billion cubic feet of hardwood and softwood is located on the nearly 15 million acres of timberland
- Overall, annual growth exceeds the annual removals plus mortality
- Longleaf pine, pond pine and cypress volumes decreased, meaning more was being cut or died than was growing each year
- The yellow pines, slash, loblolly, longleaf, shortleaf, pond, and sand, constituted more than three-quarters of all softwood removals
- Forest acreage has dropped steadily since the 1930s, totaling a loss of an estimated 6 million acres, or 30%, by 2005 (19.7 to 13.9 million acres)

<sup>1</sup> Florida’s Renewable Forest Resources, University of Florida Extension

- Current forest loss is estimated at more than 80,000 acres *per year*, equaling the average *annual* loss since record-keeping began
- At the 80,000 acre current average, Florida will lose another 2 million acres by 2030
- According to the USDA Forest Service, 57% of the existing timberland is in good silvicultural condition, 27% needs to be regenerated, 9% needs thinning or stand improvement, and the rest needs to be harvested, salvaged, or restored to pine<sup>1</sup>

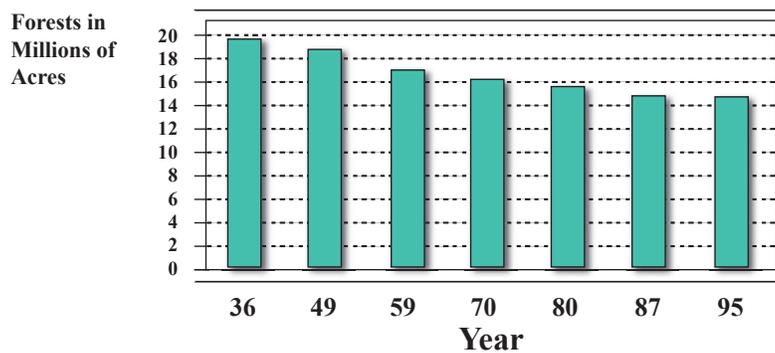
**Figure 6: Forest Type Distribution in Florida**



- Major forest types include: longleaf-slash pine, loblolly-shortleaf pine, oak-pine, oak-hickory, and oak-gum-cypress.

**Figure 7: Trends in Florida Timberland Area From 1936 to 1995**

Adapted from USDA Forest Service

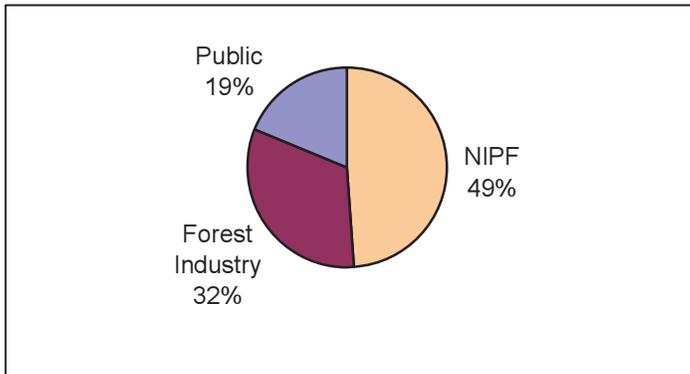


<sup>1</sup> Overview of Florida's Forest Resources and Trends, University of Florida Extension

## Owners of Our Forests

Most people might guess the “government”—State Forests, State Parks, National Forests, County and municipal lands, National Parks and Refuges, etc.—own most of Florida’s forests. In reality,

**Figure 8: Timberland Ownerships, Florida, 1995**



Source: USDA Forest Service FIA, 1995

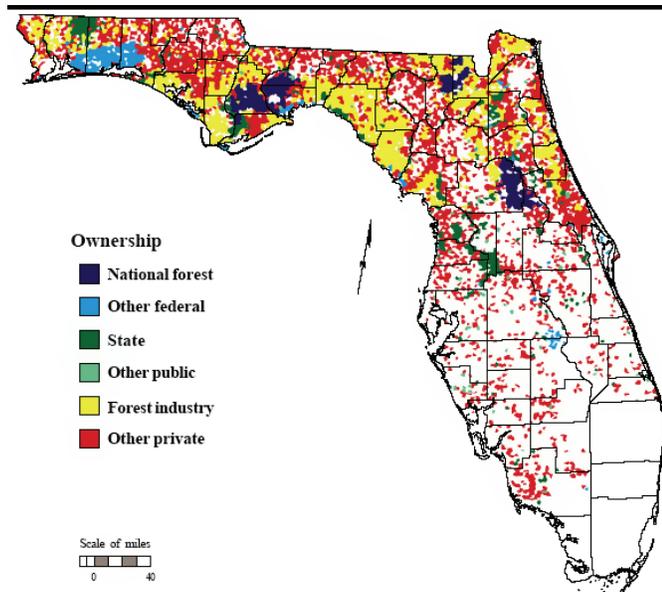
private individuals and forest industry own the most forest acreage, which is also true on the national level.

Almost half of the state’s forests are under NIPF ownership. There are more than ten million NIPF owners nationwide and more than a third of a million in Florida, a number that is growing rapidly. Florida has the lowest percentage of NIPF-owned forest of the 13 southern states because of the large amount of land in industry and public ownership.

### Key Points

- 81% of Florida’s forests are privately owned
- The type of ownership significantly influences how and if forests are managed
- The 350,000-plus NIPF owners control half of Florida’s forests and are increasing at an increasing rate as development pressure subdivides more forest land
- More and more NIPF owners are coming from urban and suburban lifestyles and bringing those lifestyles to the forest
- Forest Industry ownership is declining, with some lands subdivided and sold to NIPF owners, some sold to public entities for conservation, and some developed and converted to non-forest uses. Industry ownership declined 15% in eight years
- The negative impacts of fragmentation and parcelization are increasing as development pressure increases
- Managing a fragmented and parceled forest is much more difficult than large, single owner tracts
- Current ownership trends increase the complexity of maintaining and conserving forests

**Figure 9: Florida Timberland Ownership Patterns, 1995**



Map compiled from Florida demographic data by J. McCollum, USDA Forest Service

## Are Our Forests Healthy?

What constitutes a “healthy” forest and what constitutes an “unhealthy” forest? Most experts would consider the following conditions unhealthy: forests that have threatening invasive species or genetically undesirable trees, too many trees per acre (overstocked), more than 20% dead and dying trees, crowded vegetation, or excessive fuels. Unhealthy forests have been major contributors to Florida’s disastrous wildfires and the unprecedented outbreaks of Southern Pine Beetle. Historic land use and decades of fire exclusion have caused an over-abundance of aging, overcrowded tree and plant associations.

### Key Points

#### *Silvicultural...*

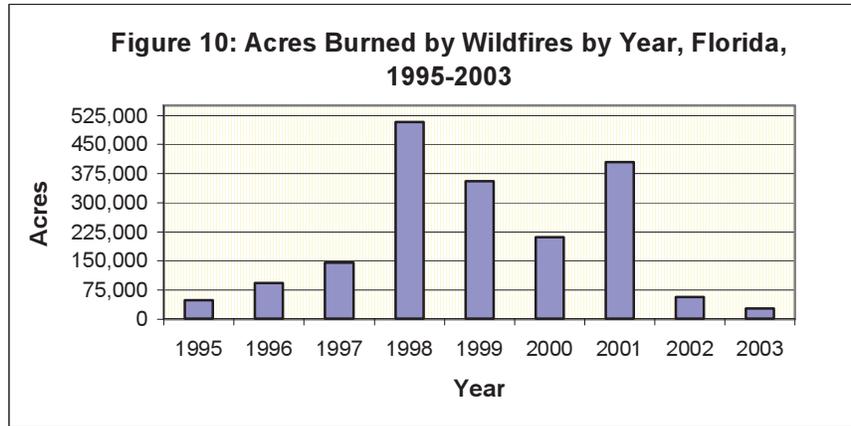
- 47% of Florida’s timberland is in need of some silvicultural treatment according to the 1995 Forest Survey
- Regeneration of poor quality stands is the primary treatment need
- Four major hurricanes and a tropical storm within a six-week period in 2004 has significantly impacted millions of acres of Florida forest
- Including public and industry land, more than 60% of Florida’s forests have professional management plans
- Less than 10-20% of NIPF lands nationwide have professional management plans, including Florida

#### *Insects and Diseases...*

- Healthy forests can have up to 20% mortality as trees compete for nutrients, water, and growing space over time
- The Southern Pine Beetle is a major pest and outbreaks could become catastrophic. Infestations are often associated with drought and in 1998 the beetle seriously impacted thousands of acres, with infestations occurring as far south as Hernando County.
- Most insects and diseases that defoliate trees are more nuisances than serious threats to Florida’s forests
- Sudden oak death disease on the West Coast of the United States may be finding its way to Florida via the shipping of ornamental shrubs

#### *Wildfires...*

- Wildfires burn an average of 189,000 acres each year
- People are the #1 cause of wildfire (75%) with lightning strikes second at about 21%
- Weather related wildfires are a normal part of forest ecology
- With ten million more people by 2030, human caused fires will increase and more property damage and loss of life is expected as the urban-rural interface expands
- Prescribed burning has many benefits, but also some liabilities if used improperly
- The month of May has the highest number of wildfires



*Non-Native Invasive Species...*

- 29% of all plants in the state are not native to Florida <sup>1</sup>
- Many of these exotics compete with native commercial tree species often crowding them out and eventually killing them
- With a growing national plant market and increased international trade the future is for more non native species to be introduced
- Millions of dollars are being spent each year to try and achieve some degree of control
- A combination of strong herbicides and some mechanical treatments are used in control efforts
- Kudzu, Air Potato, Chinese Tallow, and several exotic trees, shrubs, and grasses continue to diminish production on Florida’s timberland

*Hurricanes of 2004...*

- Florida’s forests were hit by one of the most expensive natural disasters in the state’s history, four major hurricanes and one tropical storm in a six-week period.
- 10 million acres were impacted, 2.3 million acres severely
- About \$390 million worth of stumpage was lost
- There is insufficient capacity to remove and use most of this wood
- The availability of fuel for wildfires has increased dramatically
- Management needs for the state’s forests have changed and millions of dollars will be needed for reforestation, salvage operations, timber stand improvement, and additional fire access in anticipation of future wildfire

**Table 2: 2004 Hurricanes; Acres Damaged and Estimated Value of Timber Lost, Florida**

Storm	Acres Damaged, (Millions)	Est. Value Lost Timber, (Millions)
<b>Charley</b>	1.4	\$81
<b>Frances</b>	2.2	\$51
<b>Ivan</b>	2.8	\$131
<b>Jeanne</b>	3.8	\$127
<b>Total</b>	<b>10.2</b>	<b>\$390</b>

Florida Forestry Association and  
Florida Division of Forestry

<sup>1</sup> Source: Displacement of Native Ecosystems by Invasive Alien Plants, Florida Atlantic University

- Urban forests, including street trees and homeowners landscape trees, were also severely impacted

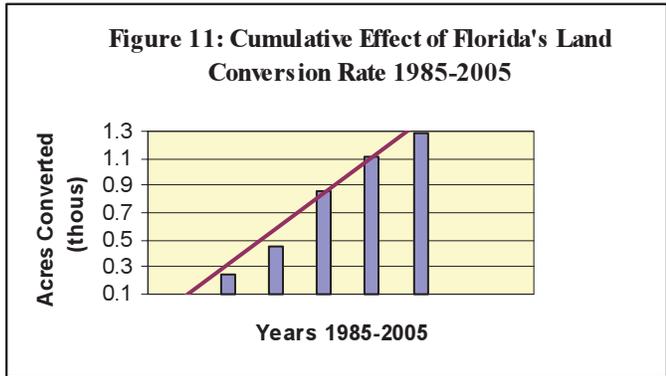
### What's Being Done to Conserve Our Forests?

As of 2001, the Florida Natural Areas Inventory reported close to 9 million acres or 26% of Florida's 35 million acres of land area as "conserved", safe from development. Protected lands are public lands, federal, state, county, or local, and privately conserved lands, usually with perpetual easements prohibiting development. Table 3 shows all the conserved lands by ownership category.

<b>Table 3: Florida Conservation Lands by Ownership</b>	
<b>Ownership</b>	<b>Acres</b>
<b>Federal</b>	
USDA Forest Service	1,153,013
USDI Fish and Wildlife Service	505,506
USDI National Park Service	1,701,229
US Department of Defense	646,849
Other Federal	4,574
<b>Total Federal</b>	<b>4,011,171</b>
<b>State</b>	
DACS Division of Forestry	991,400
DEP Division of Recreation & Parks	456,347
DEP Office of Coastal & Aquatic Managed Areas	172,203
DEP Office of Greenways & Trails	81,290
Fish & Wildlife Conservation Commission	1,295,568
Dept. of Military Affairs	73,076
Dept. of Corrections (managed by P.R.I.D.E)	18,200
State Universities	12,656
Undesignated State Lands	3,716
Water Management Districts	1,424,542
<b>Total State</b>	<b>4,528,998</b>
<b>Local County and Municipal</b>	<b>280,460</b>
<b>Total State, Federal, Local</b>	<b>8,820,629</b>
<b>Privately-conserved Lands</b>	<b>137,945</b>
<b>Total, All Conserved Lands</b>	<b>8,958,574</b>

**Key Points**

- Forests are disappearing at alarming rates, down to less than 15 million acres from 20 million acres in the 1930s (as of 1995)
- Almost 9 million acres or 26% of all lands are now considered “safe” from future development
- Forest conservation rates have almost caught up with rates of forest loss: for every acre of forest converted, a forested acre is conserved. <sup>1</sup>While forest land is being conserved, forest land is still being lost.

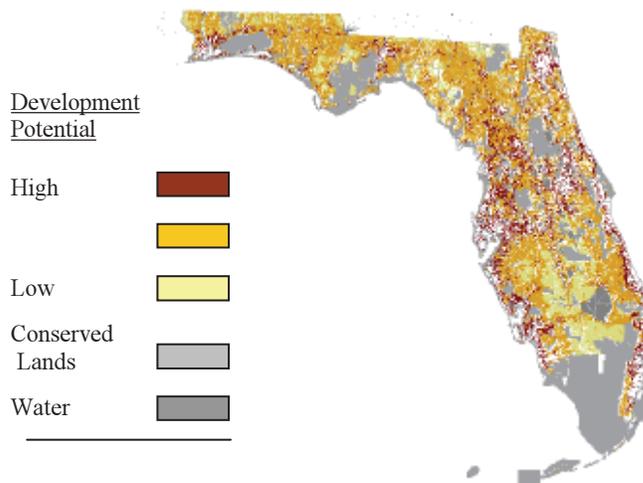


Source: Florida’s Renewable Forest Resources, Univ. Florida

- Preservation 2000 and Florida Forever Programs have been nationally recognized and have conserved more than 2 million acres since 1990

- About 350,000 acres of sustainable forest has been conserved by the Florida Forever program in the last five years
- Of all the land conservation efforts, only the Forest Legacy Program and other DOF acquisitions are totally focused on forests, but those resources are very limited
- Population is projected to increase by at least 10 million people by 2030, with another 2 to 3 million acres converted to non-forest uses (see fig. 12)

**Figure 12: Geoplan Growth Allocation Model**



<sup>1</sup> Florida Forever Program Statistics, Department of Environmental Protection

## **Step Two: Defining the Desired Future Condition (DFC) for 2030**

The Desired Future Condition statements support the overall Vision for the future of Florida's forests. Approximately 340 people helped define the DFC. This included six workshops for the general public, six regional workshops for Division of Forestry personnel, nearly 100 email internet responses to the DOF web site questionnaire, and intensive review and discussion by a Blue Ribbon Panel of forest owners and users. The Appendix contains the summary responses for the workshops and internet. The Vision and Desired Future Condition statements are located on page 3 in the Introduction.

Workshop participants, web site respondents, and the Blue Ribbon Panel also identified barriers to achieving the DFC. Each barrier can negatively affect one or more of the Desired Future Conditions and thwart the chances of achieving the overall vision. Barriers begin on page 8 of the main body of the report.

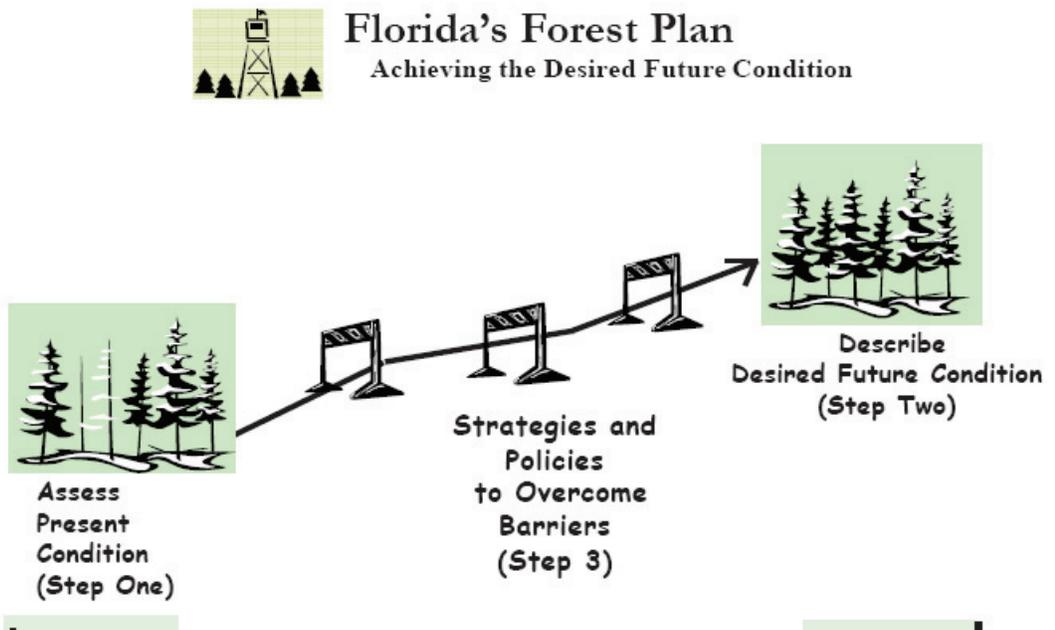
## Summary of Public and Division of Forestry Input on the Desired Future Condition

<b>Table 4: Summary of Web Site Responses: Desired Future Condition Rankings</b>
Large blocks of contiguous forest
Sustained water quality and quantity
Healthy, sustainable bio-diverse forest
No net gain of invasives
Restoration of declining species
Restore native species in decline
No net loss of forestland & convert marginal agricultural land
Planned urban/rural interface
Healthy, diverse urban forest
Management & plans on all forests
Open to variety of recreation
Diverse forested landscape
Working forest landscapes w/pockets of natural forest types
Growing valuable wood products

<b>Table 5: Summary of Public Meeting Responses: Desired Future Condition Rankings</b>
Sustained water quality and quantity
Healthy sustainable forest
Stable forestland base
Large blocks of contiguous forest
No net gain of invasives
Growing valuable wood products
An educated public re forests
Open to variety of recreation
Restore native species in decline
Healthy diverse urban forest
Restoration of Logleaf Pine & Cypress
Management plan on all forests
Prescribed fire accepted and used

<b>Table 6: Division of Forestry Input on the Desired Future Condition Rankings</b>
Sustained water quality and quantity
Healthy, sustainable, biodiverse forest
No net gain of invasives
Stable forestland base
Large blocks of contiguous forest
Planned urban/rural interface
Growing valuable wood products
Healthy, diverse urban forest
Increase forestland acres
Open to a variety of recreation

Figure 13: Key Steps in Florida's Forest Resources Planning Process



## *The Blue Ribbon Panel*

Mr. Mike Branch, Smurfit-Stone Container Corp.

Mr. Tim Breault, Director, Division of Habitat & Species Conservation, Florida Fish and Wildlife Commission

Mr. Jim Bryan: Lykes Brothers, Inc.

Mr. Michael Bullock, Director, Division of Recreation & Parks

Mr. Bob Cook President, Florida Forestry Assn.

Mr. Charles Daniel, RMK Timberland Group

Mr. Jeff Doran, Executive Vice President, Florida Forestry Association

Mr. Eric Draper, Florida Audubon Society

Mr. Manley Fuller, Florida Wildlife Federation

Mr. Eric J. Jokela, University of Florida

Ms. Marsha Kearney, National Forests in Florida

Mr. Glenn Knight, Knight Forest Products, Inc.

Mr. Jeff Ledbetter, Region Superintendent, Rayonier, Inc.

Mr. Steve Miller, St. Johns River Water Mgmt Dist.

Mr. Mike Robinson, President, Florida Urban Forestry Council

Mr. Bob Simons, Landowner

Mr. Harvey Sweeney, Landowner

Mr. Walt Thomson, The Nature Conservancy

Mr. Jack Vogel, Natural Resources Planning Services, Inc.

Dr. Tim White, University of Florida



