Fire In The South

A Report By The Southern Group Of State Foresters

Alabama Arkansas Florida Georgia Kentucky Louisiana Mississippi North Carolina Oklahoma South Carolina Tennessee Texas Virginia

ACKNOWLEDGEMENTS

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Fire In The South

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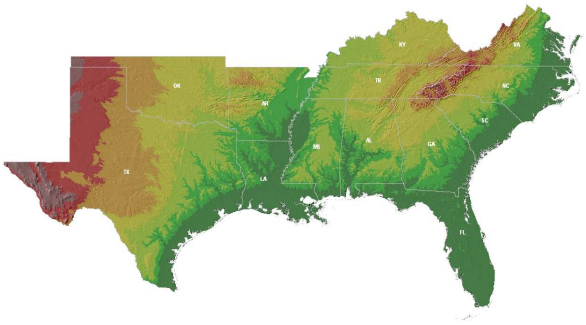

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EXECUTIVE SUMMARY

BACKGROUND

- The "South" referred to in this publication is made up of the 13 States that lie south and east of a line from Texas to Virginia. They include: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia (USDA Forest Service Region 8).
- The South has the fastest growing population of any area in the nation.
- A major portion of the economy in the South involves forestry and forestry related industries.
- The South leads all USDA Forest Service Regions in the nation in the number of:
  1. wildland fires that occur each year; and
  2. acres treated annually with prescribed fire.
- Prescribed fires in the South have the lowest cost per acre in the nation.

THE WILDLAND FIRE PROBLEM

- There is little federally owned land in the South, making southern States responsible for wildland fire protection on more than 94 percent of the total land area.
- The mix of homes and forested areas, known as the "wildland/urban interface," is adding a critical dimension to the issue of who is responsible for wildland fire protection.
- The southern States are heavily dependent on local fire departments to supplement resources available for wildland fire suppression activities.
- Southern States provide training and equipment to enhance wildland fire suppression capabilities of local fire departments and other cooperators.
- The increasingly complex wildland fire management activities in the South require implementation of new and innovative practices, improved and updated equipment, and better training for wildland firefighters.
- Other national issues, such as homeland security, are adding to the responsibility that each State must bear in all-incident response.
- As demographics in the South change, use of prescribed fire is becoming more difficult, leading to a build-up in fuel loadings.
- Loss of large landowner cooperators has further reduced availability of resources for wildland fire suppression.
- Increasing values at risk are requiring the States to modify their wildland fire management programs.

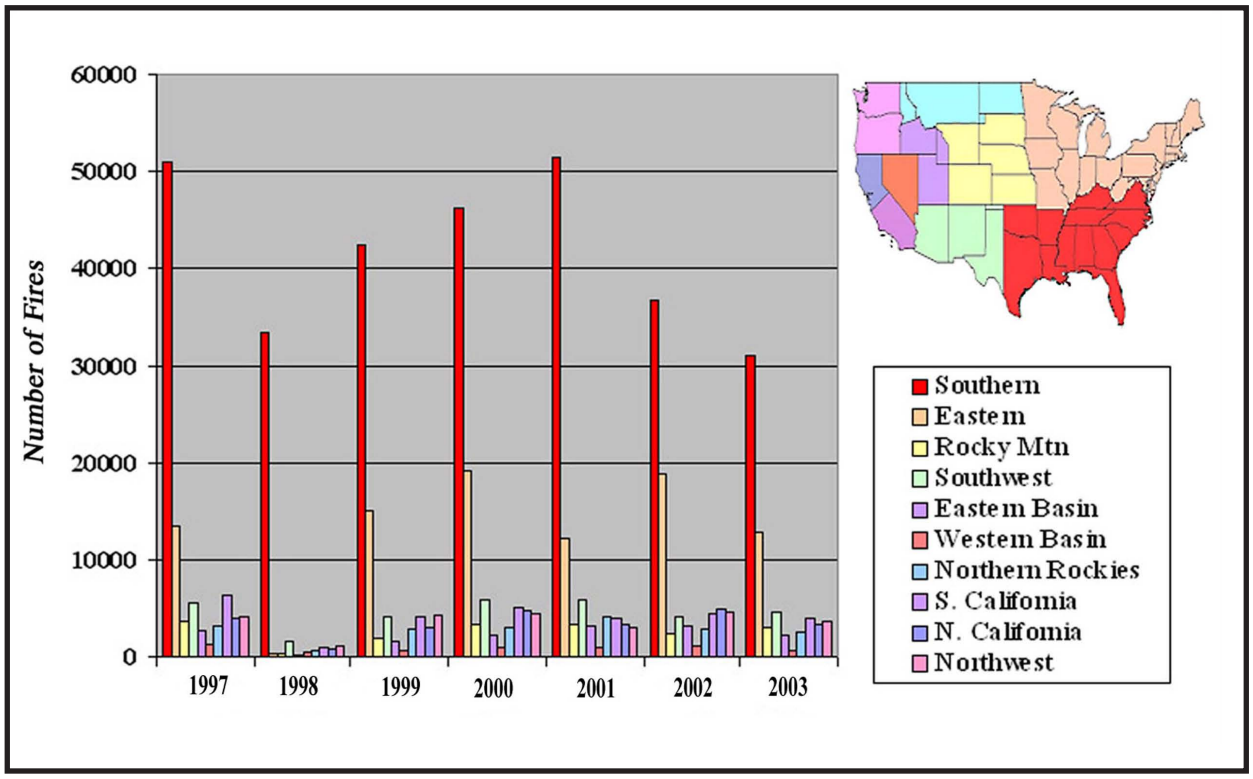

Figure 1. Number of wildland fires by geographic area, 1997—2003

Source: U.S. Forest Service

Solutions and Priorities

The issues facing the southern States can be addressed with a comprehensive strategy of prioritized actions.

1. **Conduct statewide and community wildland fire risk assessments to facilitate designation of high-risk zones to guide the allocation of limited available resources.**

2. **Develop and implement an aggressive wildland fire prevention and mitigation program to reduce the risk of wildland fire.**

3. **Plan and prepare for wildland fire suppression responsibilities by focusing on efforts to improve resource readiness.**

4. **Build the capacity of cooperators to prevent and suppress wildland fires.**

5. **Provide for rapid incident response by increasing State and local capabilities to achieve the most efficient use of available resources.**

Southern Group of State Foresters

INTRODUCTION

PURPOSE OF THE DOCUMENT

Fire in the South is intended to illustrate that southern States comprise a significant component of the national wildland fire situation. This document reviews the Southern Wildfire Risk Assessment project, the current status and characteristics of the wildland fire problem in the South, and the associated impact to the forest economy. It also describes potential solutions and recommendations.

SOUTHERN WILDFIRE RISK ASSESSMENT

Because southern States recognize the problems they are facing, they have pooled resources to fund a region-wide risk assessment that will identify areas within each State at risk for wildland fire. When completed, the Southern Wildfire Risk Assessment will assist the States in allocating available resources to meet the needs of the existing situation. This will allow each individual State to prioritize those areas where tactical analyses and community interaction or treatments may be necessary to reduce fuels and the risk from wildland fire.

Southern States provide the nation with aesthetic and tangible products related to forestry through intensive forest management and forest protection practices. State forestry organizations, which are charged with wildland fire management responsibility, provide this service for more than 94 percent of the land area in the South.

Figure 2. Interface area in Florida

Southern States contain many varied and complex forest ecosystems. Many, if not all, of these ecosystems are dependent on the effects of wildland fire for their establishment, development, and maintenance. Prescribed fire is a long-standing forest management tool in the South. Wildland fire, on the other hand, can have serious negative consequences for the South and its economy.

WILDLAND FIRE AND THE GROWTH OF THE SOUTH

The South is experiencing a significant population increase. Its mild climate and lower cost of living attract many people, including large numbers of retirees seeking to enjoy the benefits of southern living. As people move into the area, they bring with them their expectations of how forests will be managed and protected. These expectations, however, may not be compatible with those of local residents. The changing demographics can lead to conflict regarding appropriate forest management and protection.

In addition, growth in population, particularly expansion of residential development from urban centers out into rural landscapes, increases the potential for wildland fire threat to public safety and the potential for damage to forest resources and dependent industries. (See Figures 2 through 4.) Therefore, any management strategy for wildland fire agencies in the South must emphasize aggressive wildland fire control for all unauthorized/unplanned ignitions. It is essential to institute a complete wildland fire management program that includes aggressive fuels management and development of community protection programs, such as the National Fire Protection Agency's "Firewise" (www.firewise.org).

Figure 3. Interface area in the Virginia mountains

The South traditionally leads the nation in the number of wildland fires that occur each year, typically with substantial loss of resources and property. Given the extent of the area to be protected, the size of the fire organizations responsible for this protection, and the level of suppression mandated, resources of the State forestry agencies are inadequate to perform the task required of them. To fill the gap in available resources, southern States depend heavily on local fire departments, both volunteer and paid, to assist with initial attack on wildland fires. These organizations must be trained, equipped, and organized to safely accomplish this task. States must take responsibility for preparing the local fire departments to undertake this activity.

Figure 4. Interface area in the Texas Hill Country

All indications are that the population in the South will continue to increase. Many people are moving from the urban centers into, or closer to, rural areas. This change in population densities from urban to rural further compounds the already existing problems regarding wildland fire suppression faced by State forestry agencies. The issue in some instances becomes whether to protect the forest resource or the homes found within these forest areas. The need to address this problem will add further to States' costs and the complexity of dealing with the issues of wildland fire management.

DEMOGRAPHICS

The 13 States that make up the South are among the fastest growing in the nation. Census Bureau statistics show that in the 12 months beginning July 1, 2001, the region encompassed seven of the country's 10 fastest growing counties. (See Figure 5.)

State	County	Percent Increase
1. Texas	Rockwall	7.9%
2. Virginia	Loudoun	7.3%
3. Georgia	Henry	7.1%
4. Georgia	Forsyth	7.1%
5. Florida	Flagler	6.9%
6. Colorado	Douglas	6.8%
7. Georgia	Newton	6.6%
8. Minnesota	Scott	6.4%
9. Virginia	Stafford	6.2%
10. Ohio	Delaware	6.1%

Figure 5. Fastest growing counties in the U.S., July 2001 to July 2002

The South also leads the nation in the annual number of wildland fires: an average of more than 45,000 wildland fires per year. (See Figure 6.)

In the South, people are responsible for 93 percent of wildland fires. Woods arson accounts for 38 percent of all wildland fires, debris burning for about 35 percent. Lightning accounts for only seven percent of wildland fires.

The number of acres burned generally exceeds other regions in the United States. (See Figure 7.) Wildland fires in the South are typically smaller due to aggressive initial attack; however, aggressive initial attack creates a heavy impact on State suppression resources.

Wildland fires damage forest resources, impact the local forest economy, and destroy homes and businesses. Statistics on structural losses illustrate the impacts caused by wildland fires in wildland/urban interface areas. (See Figures 8 and 9.) Trends shown in these graphs are representative of the entire South.

WILDLAND FUELS SITUATION

The build-up of wildland fire fuels in the South is a result of changing land use practices, urban sprawl, land fragmentation, natural disasters such as hurricanes, increasing land values, population increases, the transition from urban to rural populations, and other political realities. These factors combine to create the potential for catastrophic wildland fire beyond the capabilities of local resources. Average wildland fire size and cost continue to increase and suppression is becoming extremely complex.

The South is made up of four geophysical zones: (1) coastal plain, (2) Piedmont, (3) mountains, and (4) the southern Great Plains of western Oklahoma and Texas. Each of these zones contains specialized fire-dependent ecosystems that require different fuels management strategies and treatment with fire at differing intervals based upon the particular fire regime. If these systems are not treated sufficiently with fire, a natural fuel build-up begins and continues until fire is reintroduced into the area, often with damaging results.

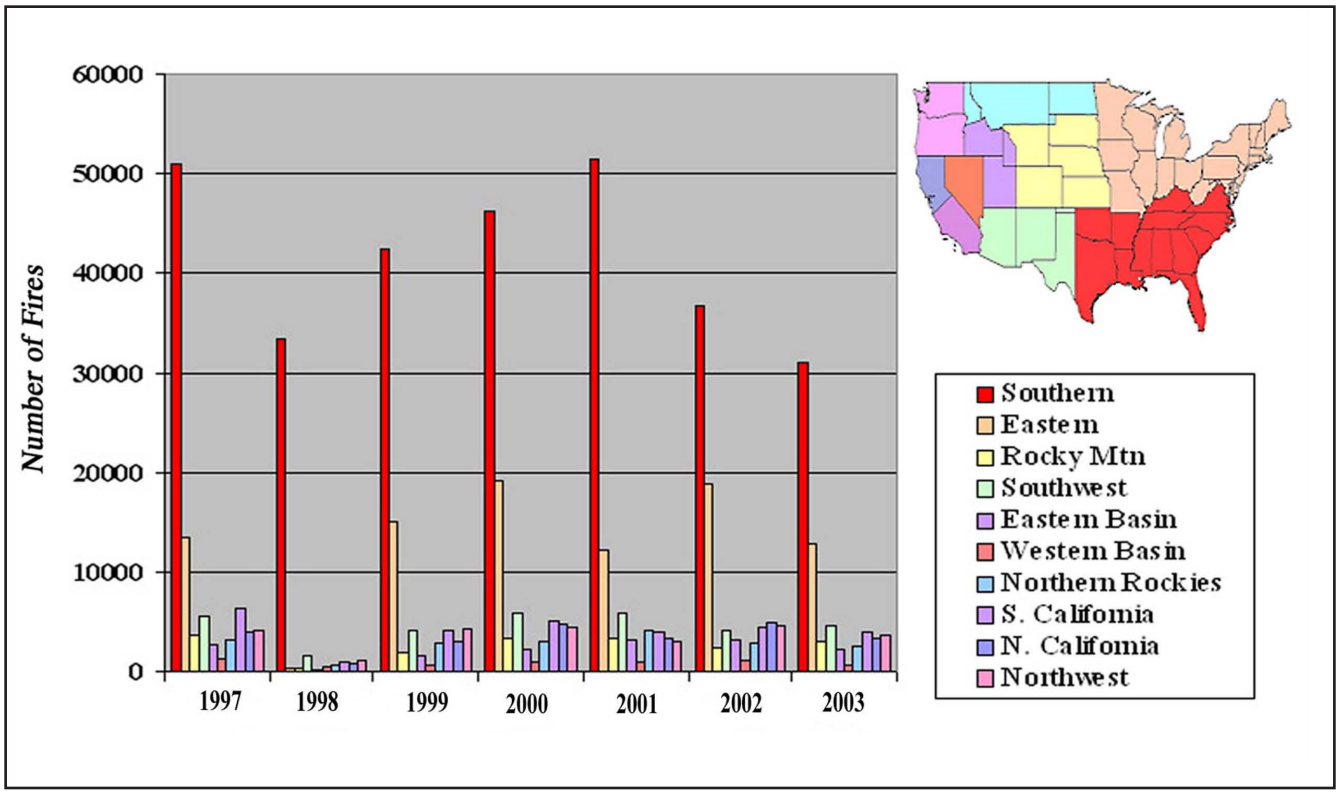

Figure 6. Number of wildland fires by geographic area, 1997—2003

Source: U.S. Forest Service

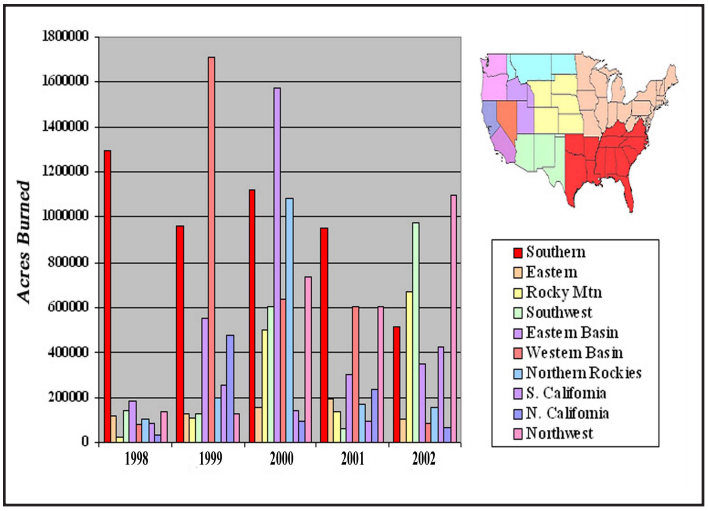

Figure 7. Number of acres burned by wildland fire by geographic area, 1998—2002

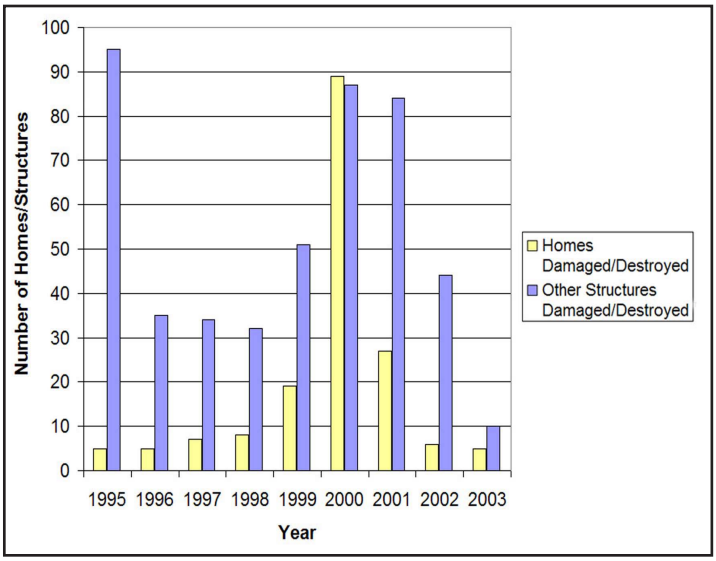

Figure 8. Virginia structures lost from wildfire

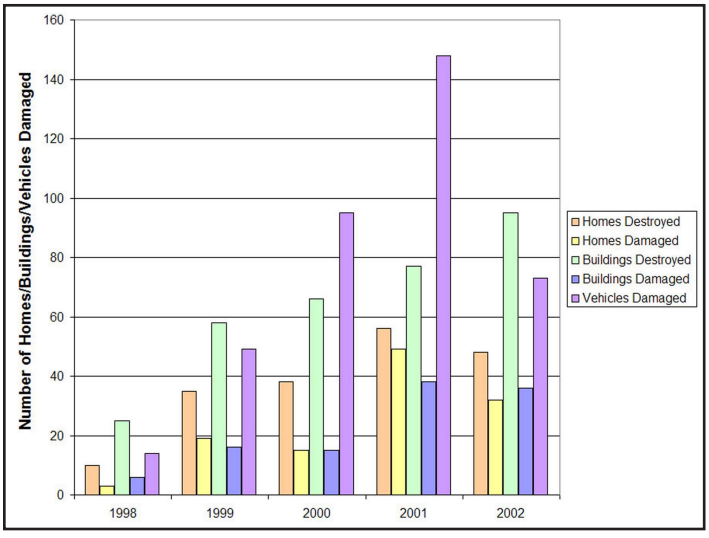

Figure 9. South Carolina structures lost from wildland fire

Lands formerly used for agricultural purposes are being allowed to revert back to their natural state and other lands are being converted to pine plantations. (See Figures 10 and 11.) Both of these land-use trends result in natural fuel accumulation and, as a result, increased potential for wildland fire. When uncontrolled wildland fire does occur in these environments, increased fuel loading results in high intensity, destructive events with extensive resource damage. This situation also poses a significant hazard to public safety and property.

FOREST ECONOMICS

More thanof the wood fiber produced in the nation comes from southern forests. Forest industries in the South contribute significantly to the local economy: forestry and related industries contribute an annual gross income of $251 billion to the southern economy and employ more than 2.2 million workers.

Figure 10. Fuel loading on agricultural lands taken out of production

Figure 11. Fuel loading in untreated pine plantations

The majority of woodlands in the South are held in private ownership by individual landowners, as shown in Figure 12. Commercial industrial landowners hold the next largest segment. State and Federal ownership comprises the remainder. The States are responsible for wildland fire suppression activities on all lands except for those in Federal ownership, or approximately 94 percent of the total land area.

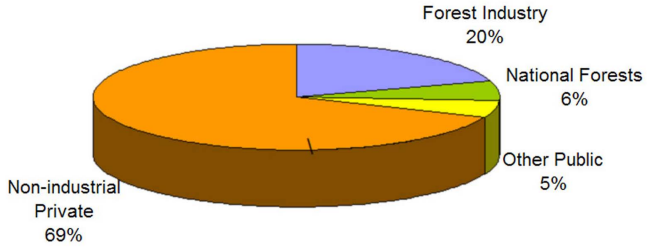

Figure 12. Ownership of southern woodlands

As of 1997, forestland comprised more than 214 million acres in the South. These forests are highly valued for the volume of wood fiber they are capable of producing. Large stands of high quality hardwoods and pines – commodities in demand in the nation and abroad – occur within the southern forest timber base. Figure 13 summarizes timberland acreage in the South by forest type and denotes the advance or decline of specific species over a 44-year period.

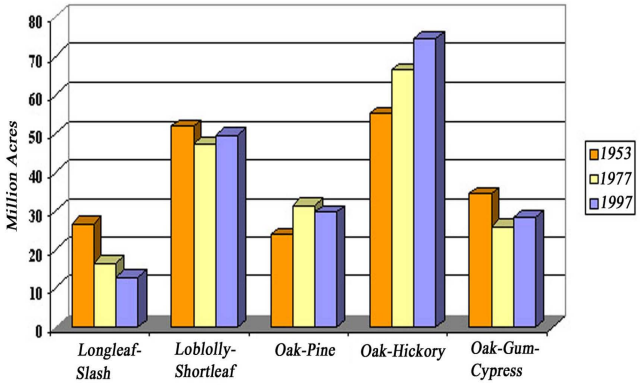

Figure 13. Southern timberland acreage by forest type

In the past, large industrial landowners participated with the States in cooperative wildland fire suppression activities. Due to the cost of maintaining personnel and equipment, most forest industries have opted for contract services.

As a result, large dozer equipment and firefighting expertise are not readily available from these commercial interests, thus adversely affecting the States and their wildland fire management programs. By default, protection of these private industrial lands falls to the States.

Wildland fires in the South are normally not as large as those that occur in the West because of aggressive initial attack. However, wildland fires in the South cause extensive damage and can be an avenue for decay in individual trees, weakening them and making them susceptible to insect disease and infestation. These infestations can ultimately kill the tree, leading to loss of lumber and/or fiber.

In addition, the South is not immune to large wildland fires. When wildfires occur, they can have a significant impact on the forest industry and the southern economy.

WEATHER AND CLIMATE

In most of the southern States, climatic conditions create two primary wildland fire seasons per year (although wildland fires can occur at any time during the year). These primary seasons occur in the spring and fall. (See Figure 14.) Normally, the spring wildland fire season starts in the southernmost portions of the region and proceeds northward as fuels reach the stage known as "green-up."

In the fall, the opposite action takes place: the wildland fire season begins in the northernmost tier of States and progresses southward as trees become dormant and lose their leaves. In some coastal regions of the South the fire season can be all year long.

The South is affected by the Pacific Ocean water temperature anomaly known as El Niño/La Niña. During El Niño cycles, the majority of the South is usually in a cooler and more moist regime, resulting in decreased wildland fire activity. However, in the La Niña cycle, the region is usually warm and dry, leading to drier than normal wildland fuels. When wildland fires start in these times, they are more severe and result in substantial damage. If such drought conditions persist over a long period of time, numerous large wildland fires occur, requiring extended commitment of limited State resources.

Wildland fire suppression response by States is based on containing and controlling each new wildland fire start within the first 24 hours. If a State fails to meet these containment goals, it faces extended attack incidents requiring additional resources.

State resources are limited. During periods of extreme wildland fire activity, resources may be depleted. Although all southern States are active members of firefighting compacts, adjoining States often have similar wildland fire potential problems and often cannot relinquish their resources. Federal resources can be expensive and in most cases do not match up well in the southern fuels and terrain and thus are not a serious option for States with already extended budgets.

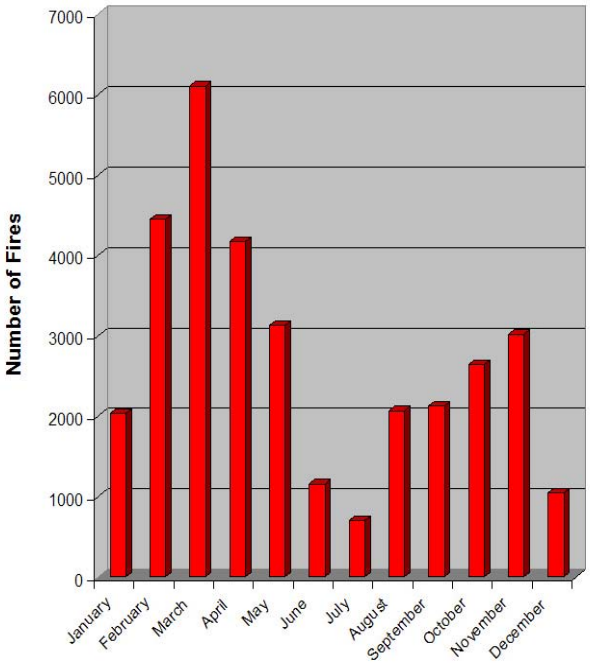

Figure 14. Wildland fire occurence in the South by month

SOLUTIONS TO THE WILDLAND FIRE PROBLEMS IN THE SOUTH

TRADITIONAL APPROACH

Traditional approaches to managing wildland fire in the South have included:

- early detection;
- rapid initial attack;
- reliance on cooperators;
- prevention; and
- prescribed fire.

For most of the 20th century, the States treated wildland fire suppression in the same way: detecting wildland fires early; aggressively attacking wildland fires with the most resources available; and relying on local large landowner cooperators. An active prevention program was in place, but was poorly funded and not aimed at the proper target audience. Prescribed fire was used to reduce fuel loadings, but as the population in the South increased, liability concerns surfaced, causing a reduction in the number of acres burned.

Figure 15. Mechanical wildland fire suppression resources are essential in the South

EVOLVING STRATEGY

Effective responses to increasing wildland fire problems in the South require the following strategies:

- risk assessment;
- . wildland fire prevention and mitigation;
- planning and preparedness;
- capacity building; and
- rapid incident response.

These strategies are detailed in the following sections.

Risk Assessment

Information gaps currently hinder States trying to conduct more detailed assessment. These include:

- **Missing data.** Current and historical weather data are lacking. A potential solution to this problem is the installation of additional automated weather stations.
- **Lack of research on southern fuels.** More information is needed on how fuels respond to a variety of ignition sources and how wildland fire behaves in a variety of fuel types.
- **Inadequate reporting on wildland fires.** There is no acceptable method that volunteer fire departments can use to report wildland fires to State forestry agencies. This critical need must be resolved.

The full extent of the wildland fire problem in the South will be available when the Southern Wildfire Risk Assessment is completed by the end of 2005. Individual States can take the assessment and further refine it to support their needs. The completed assessment can be used to set priorities for wildland fire management activities in ways that best utilize limited resources.

Once a risk assessment has been completed, results can be used to identify and categorize areas for more detailed mitigation planning. In addition, more detailed assessments can be undertaken to facilitate local planning. (See Figure 16.)

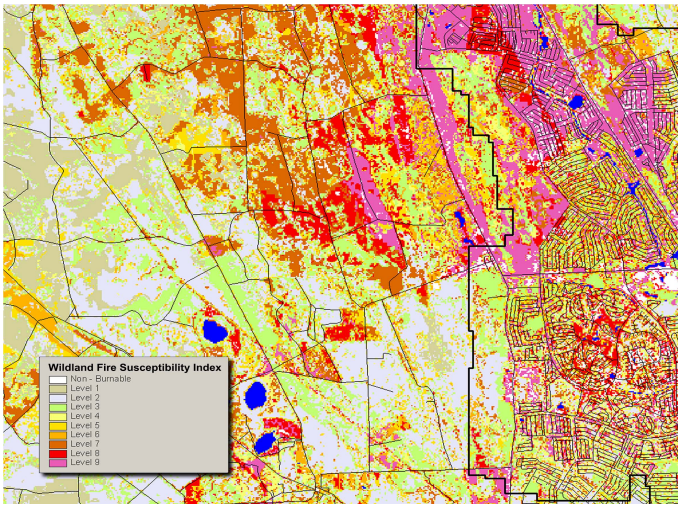

Figure 16. Florida's recent risk assessment project has helped identify problem areas for mitigation planning efforts

Wildland Fire Prevention and Mitigation

In the future, success of any wildland fire management program will be gauged by the number of wildland fires that have been prevented, not the number of wildland fires that have been suppressed. Wildland fire prevention should be a coordinated program across the South. Such coordination will require two underlying elements:

- **Public outreach.** An outreach program aimed at the general public that reinforces the existing wildland fire prevention ethic and emphasizes increased awareness education.
- **Prevention programs.** Development of targeted prevention programs aimed at specific causes in areas experiencing increased wildland fire incidence. These efforts would be directed at a specific audience and would be terminated when desired results have been reached.

At the State level, wildland fire prevention and mitigation activities should include:

- **Wildland fire prevention education teams.** These teams are very effective at reducing wildland fire incidence when deployed. The need for accurately determining the causes of wildland fire is essential to the success of these efforts, since the cause must be known to accurately identify the appropriate target audience. The value of these teams and their potential savings in wildland fire suppression costs are significant: in some cases, a 70 percent reduction in wildland fire starts has been documented through use of prevention teams.
- **Grassroots education.** Local homeowners need to take responsibility for protecting their own homes in the wildland/urban interface. States can facilitate this action through education and empowerment to accomplish this goal. Local governments also must be involved, by establishing and implementing wildland fire mitigation measures as part of their land development process. Wildland/urban interface issues need to be explained and incorporated into the local planning process as early as possible. Finally, fire service representatives should be involved in reviewing proposed developments to ensure adherence with prudent wildland/urban interface mitigation measures.
- **Empowering communities at risk.** Once the risk assessment identifies communities at risk throughout the South, partnerships should be created at State and local levels to ensure that the project dollars invested pay the largest dividends. These partnerships can foster new and innovative activities to more effectively develop and initiate mitigation efforts.
- **Prescribed fire.** This is a cost-effective management tool that can reduce hazardous accumulations of fuel. (See Figure 17.) Prescribed fires must be conducted under predetermined parameters to ensure beneficial results. However, there are certain drawbacks to prescribed fire:
  - Planners must maintain a specific burning cycle.
  - Changing demographics in the South mean certain populations do not accept prescribed fire as a management tool.
  - A noticeable by-product is smoke that can be a health hazard for those with respiratory problems and a safety hazard to travelers on roadways.
  - Lack of liability coverage for prescribed burning contractors.

The South leads the nation in the number of acres managed through prescribed burning each year. Prescribed fire is a cost-effective tool for managing southern forests, even with the limitations listed above. (See Figures 18 and 19 on following pages.)

Figure 17. Prescribed burning operations in a wildland/urban interface area

Planning and Preparedness

Adequate preparation for wildland fire events requires advance planning. Components of planning and preparedness include:

- **Training and maintaining qualified personnel.** Local fire departments and large commercial landowners are sources of personnel to fill many overhead or managerial fire-related positions. Training should be coordinated among the States to avoid duplicating course offerings and to ensure that States adhere to standard training courses compatible with National Wildfire Coordinating Group (NWCG) Incident Command System. Wildland Fire Training Academies are proving to be an effective method of providing training to State personnel and cooperators. Qualified contract trainers also can be used to bring training onsite to local cooperators at convenient times. This option further relieves State employees of training duties. Occasionally wildland fire events occur that exceed the capabilities of local suppression organizations and require a qualified Incident Management Team (IMT). States can reduce their costs and still provide an experienced IMT for the incident by establishing and maintaining one or more qualified IMTs made up of interagency personnel.
- **Using GIS technology to develop and depict preparedness plans.** Weather data and graphic depictions of current and anticipated wildland fire situations are essential to developing a meaningful preparedness plan. GIS capabilities are a must. In a severe wildland fire situation, planners using GIS can rapidly depict areas of concentrated wildland fire occurrence and make deployment decisions that use the resources they have available to best advantage. Information on the uses and benefits of this technology should be made available to policy makers and the public along with details on current and anticipated wildland fire situations.
- **Wildland fire reporting.** States should continue to participate in the nationwide wildland fire reporting system. States must obtain accurate data on wildland fire occurrence from local fire departments.

Figure 18. Examples of different forest types before and after prescribed fire

Coastal South Carolina - Pine forest after 12 years of wildland fire exclusion

Coastal South Carolina - Pine forest after prescribed burning program initiated

Florida - Pine forest after completion of first prescribed burn

Florida - Pine forest after three prescribed burns over a 6-year period

Figure 19. Fire intensity increases as wildland fuels accumulate over 3, 4, and 8-year periods

Wildland fire in a 3-year accumulation fuel bed

Wildland fire in a 4-year accumulation fuel bed

Wildland fire in an 8-year accumulation fuel bed

Capacity Building

Local fire departments perform initial attack operations on a significant number of wildland fires in the South. States provide training and equipment to enhance fire department effectiveness through a number of programs. Each has certain issues, as described below:

- **Adequate funding for volunteer fire assistance.** This State-operated program receives only a small amount of Federal funding.
- **Flexibility within National Fire Plan.** Designed to build wildland fire response capacity within all wildland fire agencies, the plan provides funding for both wildland fire prevention and wildland fire mitigation programs. States need additional flexibility to determine the appropriate ratio of these funds in order to meet their individual wildland fire management objectives.
- **Access to National Wildfire Coordinating Group (NWCG) Training.** NWCG is an organization providing, among other things, uniform training for all wildland fire agencies. Some method of NWCG-approved training needs to be developed and utilized to allow local fire departments access to training on all aspects of wildland fire management, including suppression, prevention, and prescribed fire operations.
- **Simpler and equitable access to grant funding.** Local fire departments can apply to a number of grant programs: FEMA, Homeland Security Office of Domestic Preparedness, USDA Forest Service, Department of Interior, National Fire Administration, National Fire Plan, Farm Bill, State programs, private foundations, and several others. However, no mechanism exists to ensure that grants are equitably distributed to meet the needs of the rural fire departments. Recently, Oregon and Washington established "one-stop" clearinghouses for navigating the maze of grants available to local fire districts and departments. Similar activities are needed in the South to help coordinate simpler and more equitable access to funding available through the National Fire Plan and other programs.

Rapid Incident Response

Rapid incident response is needed to protect life and property, contain the spread of wildland fire, reduce incident cost, and limit resource losses.

Prompt notification of a wildland fire is critical for controlling wildland fires while they are still small. Local 911 and E911 organizations need to coordinate more closely with the State forestry agencies to reduce redundant dispatching of resources to the same incident.

Furthermore, States need to explore every opportunity to improve upon detection technology and methods and take the lead in seeking out new avenues of detection.

Recommendations

Following are key priorities for solving wildland fire problems in the South:

1. **Conduct statewide and community wildland fire risk assessments to facilitate designation of high-risk zones to guide the allocation of limited available resources.**

2. **Develop and implement an aggressive wildland fire prevention and mitigation program to reduce wildland fire risk.**

3. **Plan and prepare for wildland fire suppression responsibilities by focusing efforts on improving resource readiness.**

4. **Build capacity of cooperators to deal with prevention and suppression of wildland fires.**

5. **Provide for rapid incident response by increasing State and local capabilities to achieve the most efficient use of available resources.**

Southern Group of State Foresters

This section provides information for each southern State on:

1. Forestland and type;
2. Commercial forestland ownership;
3. Forest economy;
4. Forest protection responsibility;
5. Forest protection system; and
6. Wildland fire activity.

ALABAMA FOREST FACTS

Forestland and Type

- 23 million of Alabama's 32 million acres are forestland.
- Of those 23 million, only 100,000 acres are "wilderness," with the rest commercial forestland.
- Commercial forestland in Alabama consists of 47% hardwood, 18% oak/pine and 35% pine.
- The most prevalent hardwood forest type is oak/hickory; the most prevalent pine forest type is loblolly pine. Alabama also has over 1 million acres of longleaf pine forests.

Commercial Forestland Ownership

- Government owned forest 6%.
- Forest industry 16%.
- Private non-industrial owners 78%.

Forest Economy

- Forestry directly creates 70,000 jobs statewide. Another 100,000 jobs are associated with industries that count forest resources as an integral part of their products. This equals 10% of the civilian workforce in the State.
- Forests in Alabama add $12.2 billion to the economy each year.
- Forest products are mainly in the form of pine and hardwood pulpwood, saw timber, and veneer. Alabama also has a strong furniture industry.

Forest Protection Responsibility

The Alabama Forestry Commission (AFC) is responsible for suppression of all wildland fires in the State, except on lands under Federal ownership. The area protected from wildland fire is 27,805,000 acres. This includes State and private forested acres plus other vegetated areas, such as farms and pastures.

On federally owned lands (5% of the forestland base), the AFC has mutual aid agreements in place to support Federal wildland fire suppression efforts.

Forest Protection System

The AFC has suppression personnel and equipment in each of Alabama's 67 counties. A suppression unit is defined as two firefighters, one dozer and one transport. Staffing ranges from one to four units per county. The AFC has a fleet of 150 suppression units. These personnel are organized under one of four Regional Foresters who answer to the State Forester. Crews are dispatched from one of nine dispatch centers across the State. Wildland fires are detected using both agency and contract spotter aircraft and by reports from the public or county 911 centers. Wildland fires are reported using toll-free numbers and tracked in a real-time internet-based wildland fire reporting system.

The AFC helps create and partially fund over 1,000 volunteer fire departments. The VFDs are active in suppressing many small and easily accessible wildland fires. The AFC provides, upon request, training in basic wildland fire behavior and suppression tactics. There is little Federal land in Alabama so there is no opportunity for extensive wildland fire suppression coordination. However, there is a close relationship between the U.S. Forest Service, Department of Interior agencies, and the AFC, which allows for cooperative wildland fire suppression as needed. There is less wildland fire suppression support from industry now that most of the companies have eliminated much of their suppression personnel and equipment. Industry has also sold large blocks of forestland to investment companies, further reducing private suppression forces.

Wildland Fire Activity

An average wildland fire year in Alabama produces 4,000 wildland fires that burn 40,000 acres. Debris burning and arson are major causes of wildland fire. Each year Alabama wildfires damage or destroy 46 homes, 114 structures, and 1,100 vehicles. Rapid population growth has resulted in extensive areas of wildland/urban interface across the State. An initial estimate found over 1,350 wildland/urban interface communities with potential wildland fire damage risk.

ALABAMA FORESTRY COMMISSION

ARKANSAS FOREST FACTS

Forestland and Type

- Total land area of Arkansas is 33.3 million acres.
- Forests in Arkansas total 18.9 million acres.
- 18.7 million acres are available for commercial use.
- Commercial forestland in Arkansas consists of 55.4% hard wood, 17% oak/pine, 27.6% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/short leaf.

Commercial Forestland Ownership

- Government owned forest 18%.
- Forest industry 24%.
- Private non-industrial owners 58%.

Forest Economy

- Forestry directly creates 16,380 jobs statewide and supports a total of 47,400 jobs.
- Arkansas forests create a $4 billion value added to the economy each year.
- Forest products include pulp, paper, lumber, and timbers.

Forest Protection Responsibility

The Arkansas Forestry Commission is responsible for the protection of 18.8 million acres in Arkansas. This includes wildland fire detection and suppression, enforcement of the fire laws, timber theft laws, unlawful dumping on forestlands and any unlawful damage, vandalism, or theft of forestry or logging equipment.

Forest Protection System

The Arkansas Forestry Commission maintains approximately 98 truck/tractor wildland fire suppression units stationed in nine administrative districts across the State. The detection fleet is comprised of 16 aircraft that fly predetermined detection routes around the State based on wildland fire danger and occurrence. The Commission works in cooperation with approximately 1,000 fire departments, USFS, and local forest industry crews to suppress wildland fires in the State.

The Arkansas Forestry Commission maintains a seasonal contract for single engine air tankers used for wildland fire suppression.

Wildland Fire Activity

Arkansas' 10-year wildland fire average is 2,000 wildland fires for 26,232 acres. The highest occurrence in the last 10 years was in 1995, when 3,460 wildland fires burned 52,502 acres. In the 2002 wildland fire season, Arkansas had 1,199 wildland fires for 14,351 acres, well below the 10-year average.

ARKANSAS FORESTRY COMMISSION

FLORIDA FOREST FACTS

Forestland and Type

- Total land area of the State is 34.8 million acres.
- Forests total 14.7 million acres.
- 13.23 million acres are available for commercial utilization.
- Commercial forestland in Florida consists of 39% hardwood, 10% oak/pine, 51% pine.
- The most prevalent hardwood forest types are oak/gum/cypress.
- The most prevalent pine forest types are slash pine and long-leaf pine.

Commercial Forestland Ownership

- Government owned forest 19.3%.
- Forest industry 31.4%.
- Private non-industrial owners 49.3%.

Forest Economy

- Forestry directly creates 60,000 jobs statewide and supports a total of 125,000 jobs.
- Florida's forests contribute over $8.5 billion to the economy each year.
- Forest products include pulpwood (261M cubic feet), saw logs (167M cf), by-products (152M cf), and veneer (34M cf).

Forest Protection Responsibility

The Florida Division of Forestry's 1,300 employees are responsible for statewide protection of 26 million acres, including 14.7 million acres of forestland.

Forest Protection System

Florida has four regions containing 15 field units prepared to provide a level of wildland fire management that reduces threats to life and property, forest and wildland resources, and other related values-at-risk and promotes natural resource management through the use of prescribed fire (average 2 million acres per year). The Florida Division of Forestry works with other firefighting organizations, including the United States Forest Service, Department of Interior, State and local government agencies, fire departments, and citizens' groups to ensure minimum damage from wildland fires. The Florida Division of Forestry emphasizes wildland fire prevention through community and school programs, such as Firewise and Fire in Florida's Ecosystems. Florida also has the most comprehensive risk assessment program in the nation for wildland fire planning and protection.

Wildland Fire Activity

Florida's wildland fire season goes year-round, with the majority of activity occurring from December through July. The State averages 5,000 wildland fires and over 300,000 acres burned per year. Arson, lightning and escaped debris burns are the three most prevalent causes of wildland fire in Florida.

GEORGIA FOREST FACTS

Forestland and Type

- Total land area is 37 million acres.
- Total forest acreage is 24.5 million.
- 23.9 million acres of forestlands are available for commercial use.
- Commercial forestland in Georgia consists of 39.5% hardwood, 16.5% oak/pine, 44% pine.
- The most prevalent hardwood forest types are oak, maple, yellow poplar and sweet gum.
- The most prevalent pine forest types are loblolly and slash.

Commercial Forestland Ownership

- Government owned forest 8%.
- Forest industry 20%.
- Private non-industrial owners 72%.

Forest Economy

- Forestry directly creates 177,266 jobs statewide and supports a total of 204,065 jobs.
- Georgia's forests create a $30.5 billion value added to the economy each year.
- Forest products include timber, pulp, and paper.

Forest Protection Responsibility

The Georgia Forestry Commission is responsible for protecting 27.2 million acres, of which roughly 24 million is commercial forestland. Agreements with the USDA-Forest Service, U.S. Fish and Wildlife Service, and Department of Defense give the GFC additional partial responsibility on federal lands.

Forest Protection System

Georgia is divided into 12 forest protection districts. State fire suppression resources are located in 131 of Georgia's 159 counties. A fleet of 345 tractor plow units provides forceful response to wildfires and

also supports a presuppression firebreak program of 25,000 miles per year. In addition, the GFC deploys 50 Type VI wildland engines. The GFC aviation section consists of 22 single engine air patrol aircraft and three Type III helicopters. Georgia builds its own fire plows, tractor canopies, engines, and truck beds. The Rural Fire Defense Program fabricates Type I-VI engines for lease to fire departments, which, in turn, agree to assist on wildland fires. Some 750 fire departments with an estimated 15,000 firefighters respond to most wildland fires. This program has resulted in availability of an estimated 1,250 engines. Georgia produces its own fire weather forecasting and uses 80 fire danger weather stations for daily readiness. National Fire Plan funding has resulted in an increased fire prevention program focused on 32 of Georgia's highest fire occurrence counties and implementation of fire prevention teams.

Wildland Fire Activity

Georgia experiences about 8,767 wildland fires each year that damage or destroy approximately 38,183 forest acres. Georgia firefighters have the best wildland fire suppression record in the Southeast: the average wildland fire consumes less than five acres. Careless burning of debris continues to be the leading cause of wildland fires.

KENTUCKY FOREST FACTS

Forestland and Type

- Total land area of Kentucky is 25.4 million acres.
- Total forest acreage is 11.8 million acres.
- Of these forestlands, 11.7 million acres are available for commercial use.
- Commercial forestland in Kentucky consists of 86.2 % hard wood, 8.5% oak/pine, 5.3% pine.
- The most prevalent hardwood forest type is oak/hickory.
- The most prevalent pine forest type is loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 10%.
- Forest industry 3%.
- Private non-industrial owners 87%.

Forest Economy

- Forestry directly creates 31,000 jobs statewide.
- Kentucky forests add $4.5 billion to the State economy each year.

Forest Protection Responsibility

The Kentucky Division of Forestry is mandated to provide wildland fire protection for 11.7 million acres of forestland in the State.

Forest Protection System

The Kentucky Division of Forestry has established a statewide system of wildland fire prevention, detection, suppression, and law enforcement. The division supplements its wildland fire suppression capabilities through cooperation with rural fire departments, the Kentucky National Guard, Kentucky Department of Corrections, and various Federal agencies. The division provides training, equipment, and vehicles to the 800-plus volunteer fire departments in the Commonwealth of Kentucky.

Wildland Fire Activity

Kentucky has two official wildland fire hazard seasons as established by state statute. The spring wildland fire season runs from Feb. 15 through April 30; the fall wildland fire season begins Oct. 1 and runs through Dec. 15. Based on 1993-2002 data, on average the Kentucky Division of Forestry annually suppresses 1,498 wildland fires burning 67,192 acres.

KENTUCKY DIVISION OF FORESTRY

LOUISIANA FOREST FACTS

Forestland and Type

- Total land area of Louisiana is 26 million acres.
- Total forest acreage in the State is 13.8 million.
- Commercial forestland in Louisiana consists of 51% hardwood, 13% oak/pine, 36% pine.
- The most prevalent hardwood forest types are oak/gum/cypress.
- The most prevalent pine forest types are loblolly/shortleaf pine.

Commercial Forestland Ownership

- Government owned forest 9%.
- Forest industry 29%.
- Private non-industrial owners 62%.

Forest Economy

- Forestry directly creates 19,703 jobs statewide and supports a total of 27,703 jobs.
- Louisiana forests add $3.8 billion to the economy each year.
- Louisiana timber harvesting companies and their employees received $423 million in 2002.
- Louisiana forest landowners received $573 million in 2002.

Forest Protection Responsibility

The Louisiana Department of Agriculture & Forestry is responsible for the protection of 19 million acres against catastrophic wildland fire. This includes 13.8 million acres of commercial forestland.

Forest Protection System

The Louisiana Department of Agriculture & Forestry has eight districts. The State has 18 airplanes that fly detection and approximately 95 tractor-plow units. However, only about 60 two-man crews can be fielded at one time. The State is served by approximately 613 fire departments, some with multiple stations that cooperate in the suppression of wildland fires. The U.S. Forest Service, U.S. Fish and Wildlife, and industry cooperate through their respective jurisdictions to extinguish wildland fires.

Wildland Fire Activity

For the five-year period 1998–2002, Louisiana averaged 2,815 wildland fires burning 35,808 acres per year. Below are the most recent annual statistics.

Year	Wildland fires	Acres
1998	3,187	35,086
1999	3,586	30,152
2000	4,747	93,015
2001	1,106	7,877
2002	1,447	12,909

MISSISSIPPI FOREST FACTS

Forestland and Type

- Total land area of Mississippi is 30.2 million acres.
- Total forest acreage is 20 million.
- Of the forestlands, 18.4 million acres are available for commercial use.
- Commercial forestland in the State consists of 52% hardwood, 17% oak/pine, 31% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 9.8%.
- Forest industry 16.6%.
- Private non-industrial owners 73.6%.

Forest Economy

- Forestry directly creates 14,200 jobs statewide and supports a total of 142,430 jobs.
- Mississippi forests create a $14.8 billion value added to the economy each year.
- Forest products include paper and allied products, wood furniture and related products, and lumber and wood products.

Forest Protection Responsibility

The Mississippi Forestry Commission (MFC) is responsible for protecting 14.8 million acres of private non-industrial forestland within the State.

Forest Protection System

MFC provides forest protection through the placement of county fire crews. A crew consists of a tractor-plow unit with an operator and helper. The number of crews located in a county is determined by wildland fire activity within that county as well as workload. The crews are dispatched for initial attack through one of six district offices located around the State. Wildland fires are reported to the district offices by toll-free telephone. The MFC also uses aircraft to patrol for wildland fires when the right conditions exist.

There are 756 county, municipal, and volunteer fire departments located in the State. The MFC crews coordinate with these departments (usually through a Unified Command) during wildland fire suppression activities. Administrative contacts are handled through the State Fire Coordinator and county fire coordinators.

The MFC also works closely with Federal agencies through cooperative agreements and MOUs. Timber companies assist with wildland fires on their property and at times on private lands, but most companies have drastically reduced the amounts of equipment and personnel. Very few timber company crews are available to assist.

Wildland Fire Activity

Mississippi traditionally has two wildland fire seasons each year. The first season usually begins in late October with the first frost and hardwood leaf drop and runs through December. The second season usually begins in February and runs to mid-April or until spring green-up. These seasons vary from year to year, depending on rainfall, wind, and other weather factors. The southern one-third of the State generally tends to have the most wildland fire activity. The five-year average for wildland fires in Mississippi is 3,613 wildland fires and 45,728 acres. Average wildland fire size is close to 10 acres.

Although Mississippi has its share of WUI areas, relatively few homes and structures are lost to wildland fires. An average of 12 homes and eight other structures are lost each year to wildland fires. Another four homes and two structures are damaged each year. There are usually 15 vehicles damaged or destroyed by wildland fire each year.

MISSISSIPPI
FORESTRY COMMISSION

NORTH CAROLINA FOREST FACTS

Forestland and Type

- Total land area is 32 million acres.
- Total forest acreage in North Carolina is 18.3 million.
- Commercial forestland consists of 53% hardwood, 14% oak/pine, 33% pine.
- The most prevalent hardwood forest types are oak, maple and poplar.
- The most prevalent pine forest types are loblolly and white pine.

Commercial Forestland Ownership

- Government owned forest 11%
- Forest Industry 13%
- Private non-industrial owners 78%

Forest Economy

- NC forests support the state's second-largest manufacturing industry, the forest products industry, which employs 312,000 people.
- Forestry in NC has an annual payroll of $3.5 billion.
- Forestry contributes over $30 billion annually to the state's economy.
- Forests cover 62% of North Carolina, ranking as the fourth most forested state in the nation.

Forest Protection Responsibility

The Division of Forest Resources is mandated and directed by Chapters 77, 113 and 143 of the North Carolina General Statutes and by Title 15, Chapter 9 of the North Carolina Administrative Code to protect, manage and develop the 18.3 million acres of forest resources in the state. The processes used to accomplish this mandate involve management of existing resources, development and creation of new and better forests, and protection of these valuable resources against insect & disease and wildfires.

Forest Protection System

NCDFR is comprised of 700 permanent employees that span three regions, thirteen districts and 100 counties of the state. With a good mix of urban and rural areas, NCDFR works closely and greatly utilizes the 1,400 fire departments in suppressing over 5,000 wildfires each year.

The division operates 94 tractor-plow units, 28-fixed wing and 5 rotor wing aircraft. These aircraft have supported both private landowners and industry cooperators, along with numerous Federal land use agencies in their fire suppression efforts.

CL-215 "Super Scooper

NCDFR also has a amphibious air tanker, the CL-215 which is also known as the Super Scooper. The CL-215 is a statewide resource, and is utilized for initial attack and support operations from the Mountains to the Coast. It has worked in the Urban Interface Fire regime and is a real performer protecting structures and providing support for ground forces during suppression efforts. The 215 has been dispatched several times through the Southeast Compact to support other states in fire suppression efforts, and is also interagency qualified through the US tanker board to work federal fires through Region 8 approval. This provides the US Forest Service with another resource and also strengthens the Southeastern Compact resource pool.

The Division provides the Federal Land Management agencies and other states with fire suppression resources through a mutual aid, shared resource agreement. During periods of extreme fire occurrence, the Division provides trained personnel and equipment for dispatch to virtually any location within the United States. NCDFR has three in state Type II Incident Management Teams that meet NWCG Standards for national dispatch.

Fire prevention and hazard mitigation also plays a big role in North Carolina's fire protection system. Division personnel are presently mapping critical areas, pre-planning attack on critical areas, coordinating response directives, training with local VFDs, preparing public awareness campaigns, and assisting with the establishment of local homeowners and landowners protection associations through NCDFR's Firewise Communities program. Hazardous fuel reduction via prescribed fire also continues to be a priority for NCDFR.

Wildland Fire Activity

North Carolina, like most other southern states, has two distinct fire seasons … Spring and Fall. Fall fire season begins with the first frost in October and usually ends in December. Spring fire season is typically the most intense of the two and begins the first of March and will last until mid-May as the vegetation begins to green from spring showers. Sometimes spring fire season can even carry through until June with pocosin fuels in our coastal region, that prove to be more volatile and take longer to green.

Over the past 10 years North Carolina has been hit with several hurricanes, ice storms, and wind storms. These events have left behind a large amount of fuel, particularly within urban interface areas. The fuel has cured over the years creating a hazard for citizens living in the affected areas. Fires have been occurring not only during the normal spring and fall fire seasons, but also during dry summer months.

Most of the wildland fires in North Carolina are caused by human carelessness, such as debris burning. The five-year average is 5,851 wildland fires per year for 25,210 acres per year. North Carolina's average fire size is close to 4 acres.

The Division also has a distinguished reputation in assisting the public during or following natural disasters within North Carolina. The training and equipping of personnel make us ready to assist with tornadoes, hurricanes, floods and other events. The Incident Command System allows us to quickly mobilize and organize large forces on the ground anywhere in North Carolina. Working with the State Division of Emergency Management, we are often the first called and last to leave many disasters.

OKLAHOMA FOREST FACTS

Forestland and Type

- Total land area is 44 million acres.
- Total forestland in Oklahoma is 10 million acres.
- Of these forestlands, 6.2 million acres are available for commercial use.
- Commercial forestland in the State consists of 73% hardwood, 12% oak/pine, 15% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are shortleaf/loblolly pine.

Commercial Forestland Ownership

- Government owned forest 9.5%.
- Forest industry 17.7%.
- Private non-industrial owners 72.8%.

Forest Economy

- Forestry directly creates 6,075 jobs statewide and supports a total of 15,000 jobs.
- Oklahoma forests create a $761 million value added to the economy each year.
- Forest products include hardwood and softwood lumber, softwood plywood, kraft paper, medium density fiberboard, and oriented strand board.

Forest Protection Responsibility

The Oklahoma Department of Agriculture, Food and Forestry — Forestry Services has authority and responsibility for planning for, preventing, detecting, and suppressing wildland fires statewide. Forestry Services also is responsible for enforcing the provisions of the State's Forestry Code statewide.

Forest Protection System

Oklahoma's Forestry Services fulfills its responsibilities both directly and indirectly. In eastern Oklahoma, where commercial forestlands and rugged terrain are more common, Forestry Services maintains a 6.2 million acre Initial Attack organization. This area, about the size and shape of the State of New Hampshire, borders Arkansas. This Initial Attack organization (called the Organized Protection Area) uses 42 bulldozers and wildland engines, detection aircraft, lookout towers, and light helicopter contracts to suppress an average 1,700 wildland fires annually. Forestry Services utilizes resources through cooperative agreements with the Bureau of Indian Affairs, USFS, the forest industry, the Oklahoma National Guard, and over 250 fire departments to augment this suppression organization.

In the remainder of the State, Forestry Services fulfills its responsibilities through cooperative agreements with fire departments. In exchange for equipment, financial and organizational support, training, and occasional operational support, rural and municipal fire departments agree to suppress wildland fires in their areas. Forestry Services has divided this region into two large areas for the purposes of suppression planning. The area between the Forestry Services Organized Protection Area and Interstate 35 is described as the Extended Attack zone, where Forestry Services is available upon request by a jurisdictional fire department to assist with such resources as bulldozers, wildland engines, and aviation to suppress wildland fires that have exceeded the local capability.

The remainder of the State west of Interstate 35 is in the Large Fire Support Zone. Here Forestry Services supports fire departments dealing with large wildland fires by providing advisors, incident management teams, and suppression aviation. Only on rare occasions does Forestry Services deploy its Initial Attack resources in this area.

Wildland Fire Activity

Wildland fire activity in Oklahoma is strongly influenced by its geographic position. The western part of the State is located in the "rain shadow" of the Rocky Mountains, while the eastern part is strongly influenced by moisture from the Gulf of Mexico. The State is normally south of the winter snow pack experienced by its northern neighbors, so dormant grasses are vulnerable to wildland fire throughout most of the winter months.

Because of its position, Oklahoma is subject to extreme weather events. Extremes of heat, cold, wind and drought are common in the State, with highs reaching well above 110°F almost every summer and lows approaching -10°F in the winter. These extreme weather events can result in wildland fire activity at any time of the year; however, Oklahoma recognizes two somewhat distinct "wildland fire seasons." The winter/spring season lasts from November through April. This season is very predictable and, even in a wetter year, will produce most of the State's wildland fires. A second season, from late June to mid-September, is less predictable and generally more intense. Wildland fires in this summer season are more difficult and dangerous for suppression personnel and cause more resource damage.

About 97% of the wildland fires in the State are caused by human activity, since most lightning is also accompanied by rainfall.

SOUTH CAROLINA FOREST FACTS

Forestland and Type

- Total land area of South Carolina is 19.3 million acres.
- Total forestland in the State is 12.4 million acres.
- Of these forestlands, 12.2 million acres are available for commercial use.
- Commercial forestland in South Carolina consists of 36.9% hardwood, 11.6% oak/pine, 51.5% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 10.3%.
- Forest industry 16.5%.
- Private non-industrial owners 73.2%.

Forest Economy

- Forestry directly creates 40,566 jobs statewide and supports a total of 106,191 jobs.
- South Carolina forests add $14.7 billion to the economy each year.
- Forest products by volume are pulpwood (49%), saw logs (39%), veneer logs (9%), composite panels and other products (3%).

Forest Protection Responsibility

The South Carolina Forestry Commission is responsible for protecting 13.6 million acres from wildland fire; this includes 12.2 million acres of commercial forestland. The total area protected is based on the 2001 Forest Inventory Analysis data plus 10% added to cover adjacent non-forest land. This figure also includes 101,000 acres of Federal land protected under special contract, including such areas as the Carolina Sandhills National Wildlife Refuge and the Army Corps of Engineers land around Lake Thurmond, Lake Hartwell, and Lake Russell. Also included is forestland protected by Mutual Aid, approximately 825,000 acres of additional Federal land that includes the Francis Marion and Sumter National Forests, National Park lands, and U.S. Fish and Wildlife Service lands.

Forest Protection System

The South Carolina Forestry Commission has a statewide wildland fire prevention, detection and control network in place. Forestry Commission personnel are assigned throughout the State through a series of zone, unit, regional, and headquarters offices. The largest single group of employees – wildland firefighters – report directly from their residences in responding to wildland fires. Regional administrative and support offices are located in Newberry, Florence, and Walterboro. Central emergency dispatch centers are co-located at the regional office sites. Forestry Commission dispatch is by closest available resource, regardless of political or administrative boundaries.

A Wildland Fire Protection Partnership, organized in 1991, seeks solutions to wildland fire management problems in the wildland/urban interface. Membership includes the SC Forestry Commission, U.S. Forest Service, SC Firemen's Association, SC Department of Health and Environmental Control, SC Emergency Management Division, SC Fire Marshall, SC Fire Academy, and SC Forestry Association.

There are approximately 900 county, municipal, and volunteer fire departments in South Carolina. Most of these fire departments respond to wildland fires and control a large number of the wildland fires before they become destructive. The fire departments and Forestry Commission work together to control wildland fires. Most of the fire departments are not equipped to control wildland fires that have burned beyond areas that can be reached from roads.

Through the SC Emergency Management Division and the Governor's Office, the SC Forestry Commission has helicopter firefighting support from the SC National Guard available when needed. The Guard's primary firefighting mission is providing Blackhawk helicopter service to the SC Forestry Commission Incident Commanders using 780 gallon Bambi buckets and an FA400 Firefighting Pumper mounted in a helibasket. Guard helicopters are also available to transport firefighters into rough or inaccessible terrain.

Wildland Fire Activity

The South Carolina Forestry Commission firefighters respond to an average of 4,950 wildland fires burning 29,008 acres per year; 98% of the wildland fires are caused by human activities. Fire departments respond to about 24,000 grass, brush, woods, or rubbish fires per year.

TENNESSEE FOREST FACTS

Forestland and Type

- Total land area of Tennessee is 26.2 million acres.
- Total forestland is 14.4 million acres.
- Of Tennessee's forestlands, 14 million acres are available for commercial use.
- Commercial forestland consists of 84.6% hardwood, 7.5% oak/pine, 7.9% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 13.9%.
- Forest industry 9.7%.
- Private non-industrial owners 76.4%.

Forest Economy

- Forestry directly creates 78,000 jobs statewide and supports a total of 166,400 jobs.
- Tennessee forests add $17.1 billion to the economy each year.
- Forest products include paper, lumber, pallets, and flooring.

Forest Protection Responsibility

The Tennessee Division of Forestry is responsible for protecting 25.7 million acres against catastrophic wildland fire. This includes 14 million acres of commercial timberland. Additional lands are protected under agreements with the USDA Forest Service Land Between the Lakes and Tennessee Valley Authority properties.

Forest Protection System

The Division is made up of six districts with a Fire Prevention Forester and Fire Resource Coordinator in each district. They oversee the various facets of the wildland fire program at the local level. The Division has a comprehensive wildland fire prevention program that includes permitting outdoor burning and law enforcement of misdemeanor and felony wildland fire offenses. A staff of three coordinates and facilitates wildland fire operations at the State level. There are approximately 850 VFDs in the State. The Division has MOUs with 680 VFDs and has found the VFDs to be extremely helpful in keeping the size of wildland fires small. The Division assists VFDs in

maintaining wildland firefighting readiness by providing training and equipment.

The Division of Forestry cooperates with the USDA Forest Service, Cherokee National Forest, National Park Service, US Fish and Wildlife, Department of Energy, and Corps of Engineers in preventing and suppressing wildland fires. The Division utilizes firefighting crews from the Tennessee Department of Corrections and Tennessee ARNG helicopters equipped with 800-gallon buckets.

Wildland Fire Activity

The five-year average for wildland fire occurrence in Tennessee is 2,400 wildland fires per year that burn approximately 44,000 acres. While the general trend for numbers of wildland fires is downward, acreage lost to wildland fire remains high.

An additional factor is the increasing number of residences and other improvements in the wildland environment. Across the State the wildland/urban interface is rapidly expanding. In particular, the mountainous areas in East Tennessee provide a unique attraction for those who wish to live in the wildland environment, but they also present a growing challenge to the wildland fire community. The Division of Forestry and its partners are engaged in a number of programs that provide communities and homeowners with the information they need to protect their property from wildland fire. The Division is working to educate community leaders and others who have key roles in addressing the WUI issue. The Division has worked with VFDs in these areas to set up "Wildland Task Forces" that will provide much-needed wildland fire suppression support.

TEXAS FOREST FACTS

Forestland and Type

- Total land area of Texas is 169.4 million acres.
- Total forestland is 28 million acres.
- Of this forestland, 12 million acres are available for commercial use.
- Commercial forestland in Texas consists of 32.5% hardwood, 23.5% oak/pine, and 44% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 8%.
- Forest industry 16%.
- Private non-industrial owners 76%.

Forest Economy

- Forestry directly creates 79,500 jobs statewide and supports a total of 169,200 jobs.
- Texas forests add $22.1 billion to the economy each year.
- Forest products include lumber, plywood, OSB, paper and paper board, and many secondary products.

Forest Protection Responsibility

The Texas Forest Service is responsible for protecting 148 million acres against wildland fire. This includes the 12 million acres of commercial forestland in East Texas.

Forest Protection System

With a population now over 20 million and one of the highest growth rates in the nation, the landscape in Texas is changing. Land fragmentation and use, wildland/urban interface, and public safety all present an increasing challenge to wildland fire protection across the State. In response to these challenges, the Texas Wildfire Protection Plan was enacted. It emphasizes five essential program areas: fire risk assessment, fire prevention and mitigation, planning and preparedness, local capacity building, and rapid incident response. The Texas Forest Service has organized to incorporate and implement this plan. There are 17 regions across the State through which these protection activities are delivered.

Wildland Fire Activity

In the eastern two-thirds of the State, there are two traditional wildland fire seasons: a winter season and a summer season. Most of the wildland fire activity occurs during the summer, though wildland fires can happen at any time during the year. The western one-third of the State has a late spring/early summer wildland fire season. Debris burning is the most common cause of wildland fires in Texas.

TEXAS FOREST SERVICE
The Texas A&M University System

VIRGINIA FOREST FACTS

Forestland and Type

- Total land area of Virginia is 25.3 million acres.
- Total forestland is 15.8 million acres.
- Of these forestlands, 15.3 million acres are available for commercial use.
- Commercial forestland in Virginia consists of 65.4% hardwood, 12.5% oak/pine, 22.1% pine.
- The most prevalent hardwood forest types are oak/hickory.
- The most prevalent pine forest types are loblolly/shortleaf.

Commercial Forestland Ownership

- Government owned forest 14.2%.
- Forest industry 6.8%.
- Private non-industrial owners 79%.

Forest Economy

- Forestry directly creates 74,300 jobs statewide and supports a total of 248,000 jobs.
- Virginia forests add $30.5 billion to the economy each year.
- Forest products account for $25.5 billion of that figure.

Forest Protection Responsibility

The Virginia Department of Forestry is charged with protecting Virginia's 15.8 million acres of forestland from wildland fire, insects, and disease, and with conserving State lands.

Forest Protection System

The Virginia Department of Forestry is organized into six administrative regions with statewide oversight from a central headquarters facility. Local county-based personnel throughout the Commonwealth are responsible for the success of providing agency services.

The Virginia Department of Forestry relies on a fleet of 170 4x4 engines and 100 bulldozer/wildland fire plow suppression units for quick response to any reported wildland fire. The assistance of Virginia's 765 fire departments and close working relationships with Federal land management agencies and other public and private landholders in the Commonwealth ensure that wildland fire response in Virginia is both efficient and effective. A long history of proactive wildland fire prevention, wildland fire risk assessment, and commitment to the protection of woodland home communities from the risks of wildland fire have made Virginia a national leader in resource protection.

Wildland Fire Activity

Although wildland fires can and do burn during any month of the year, depending on weather conditions, Virginia normally has two main wildland fire seasons: a fall season during late October and November and a spring season during the months of March and April. Depending on weather conditions, both seasons can present very difficult wildland fire situations. The Virginia Department of Forestry responds to slightly more than 1,600 wildland fires that burn more than 13,000 acres annually (based on a five-year average, 1998-2002). Although more than 70 homes and other structures are damaged or destroyed by wildland fire each year, agency efforts protect more than 1,200 others at a value of more than $151 million.

VIRGINIA DEPARTMENT OF FORESTRY

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