



State and Private Forestry Fact Sheet Alabama 2019



Investment in State's Cooperative Programs

Program	FY 2018 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$501,980
Forest Legacy	\$2,250,000
Forest Stewardship	\$430,328
Landscape Scale Restoration	\$249,471
State Fire Assistance	\$1,204,310
Urban and Community Forestry	\$223,820
Volunteer Fire Assistance	\$290,954
Total	\$5,150,863

NOTE: This funding is for all entities within the state, not just the State Forester's office.

Program Goals

- The Alabama Forestry Commission (AFC) is committed to protecting and sustaining the state's forest resources using professionally applied stewardship principles and education. The AFC utilizes cooperative programs to maximize cost effectiveness through the use of partnerships in program delivery to increase forestland value and sustainability and does so in a voluntary and non-regulatory manner.
- The cooperative programs are administered and implemented through a partnership between the State of Alabama, the USDA Forest Service, Auburn University, Alabama A&M University, Tuskegee University, and many other private and government entities. These programs promote the health and productivity of forestlands and rural economies. Emphasis focuses on forest sustainability and the production of commodity and amenity values and benefits.

Key Issues

- Several years of budget reductions have reduced the AFC's wildfire response capacity to critical thresholds. At current staffing levels, each 2 person initial attack fire crew is responsible for protection on 275,000 acres. This area of responsibility is 70% greater than the next southern state in staffing and more than 100% greater than the average across the South.
- Even with a historically robust forest industry, FIA data shows the average annual rate of growth-to-removals for all species is 1.56:1 for the period 2001- 2017. An increase in markets will increase the need for more certified wood in the state. The Alabama Forestry Commission has hired an employee to focus on expanding markets for Alabama forest products.
- Fragmentation and parcelization has led to smaller tracts of forestland. Reaching more landowners with assistance specifically designed to meet their individual needs is a key to growing the number of acres under multiple benefit forest management in the state.
- Better technology has improved river and stream channel delineation, increasing the number of miles that the AFC tries to protect from 77,242 miles to 132,419 miles – almost doubling what we thought existed. Through education, site assessment, and complaint resolution, the AFC and forest industry can make a strong case that silvicultural operations with properly implemented BMPs do not degrade water quality in the state.
- It is imperative to maintain a strong forestry water quality program through the use of forestry BMPs. Through education, site assessment, and complaint resolution, the AFC and forest industry can make a strong case that silvicultural operations maintain and/or improve water quality in the state.
- Prescribed burning is important to Alabama's fire-adapted ecosystems. A total of 29,593,000 acres (91.7% of Alabama's total land area) are subject to wildfire threat.

- Invasions, including new species of non-native plants, pathogens and animals into forests continue to spread. These non-native invasive species, some of which are new to Alabama, increasingly erode forest productivity, hinder forest use and management activities, and degrade diversity and wildlife habitat.
- Under certain circumstances, forest insects and diseases have a significant impact on forest health and productivity through the effects of excessive defoliation, progressive decline, significant decay, root damage, stem dieback, species alteration, or outright mortality.
- Despite the rather mild climate, Alabama is prone to numerous adverse weather events such as hurricanes, tornadoes, ice storms, and droughts.

Forest Facts and Accomplishments

Selected Facts	Value	FY 2018 Accomplishments	Value
Population	4,779,736	Landowners Receiving Educational or Technical Assistance	42,187
Acres of Forest Land	23,105,863	Acres Covered by New or Revised Forest Stewardship Plans	23,697
Acres of Nonindustrial Private Forest Land	17,765,000	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	9,825
Number of NIPF Landowners	412,000	Volunteer Fire Departments Assisted	984
Acres of Federal Land Under State Fire Protection	687,000	State Fire Communities Assisted	431
Acres of Private Land Under State Fire Protection	27,720,994	Coop Forest Health Acres Protected	2,030
Number of Rural Fire Departments	986	Forest Legacy Project Acquisitions	0
Cities and Towns	460	Communities Provided Urban Forestry Program Assistance	89
Forest Based Employment	40,837	Population Living in Communities Provided Urban Forestry Program Assistance	1,921,295
Economic Impact of Forestry (by rank)	2	Urban Forestry Volunteer Assistance	17,908
State Forestry Budget (All Sources)	21,728,209		

Program Highlights

BMP Implementation

Prevention: As part of the ongoing effort to monitor the implementation of forestry BMPs, the AFC completed 251 inspections of randomly selected, active logging jobs; 27 landowner invitations were inspected; and 71 internal AFC fire line audits, for a total of 349 inspections. Inspections on active tracts target deficient areas that showed up from inspections on closed-out tracts during the implementation monitoring cycle that is conducted every third year. The inspections on the active tracts enable AFC personnel to interact with the loggers as they work while providing one-on-one instruction.

Complaint Resolution: The AFC has MOUs with the Alabama Department of Environmental Management and the U.S. Army Corps of Engineers to assist them, as the forestry technical expert, when addressing complaints that may be the result of a silvicultural activity. This year the AFC investigated 39 complaints that were alleged to have originated from silvicultural activities. Of the 39 complaints, 24 were deemed as a "not valid" complaint or were "not related to silvicultural activities." There was one land use conversion that was transferred to the appropriate state or federal agency. The remaining 15 complaints were deemed "valid" and remediation actions were taken. The AFC may work with the State Implementation Committee (SIC) of the Sustainable Forestry Initiative (a third-party certification program) to mitigate inconsistent practices cases where educational opportunities fail. No complaints were forwarded to the SIC in FY18.

Conservation Education

Environmental laws and regulations change periodically and can change rapidly at times. To keep all forestry stakeholders informed, the AFC is committed to being the most up-to-date forestry technical agency dealing with and sharing these changes through BMP program events. In fiscal year 2017, the

AFC completed 30 educational events reaching 1,245 stakeholders. These stakeholders included loggers, foresters, environmental professionals, lawmakers and politicians, students and the public.

Cooperative Fire Protection

Due to extreme drought conditions and the lack of rainfall, fire occurrences were well above AFC averages across the state. In the 2018 Fiscal Year, 3,371 wildfires were reported and suppressed, burning 48,660 acres. Average fire size was 14 acres. The majority of fires and acreage consumed occurred in the months of October and November. With limited personnel and many with no wildfire experience, this was an excellent training opportunity for the agency. All employees were able to demonstrate the value of training and its purpose in wildfire response. Wildfires destroyed or damaged 54 structures in Alabama; however, 2,721 homes were saved. Additional fire statistics include 297 structures (other than homes) and 165 vehicles were either destroyed or damaged, while 1,722 structures and 2,541 vehicles were saved. Other property that was affected by wildfires included hay bales. Through the AFC efforts 1,355 hay bales were saved while 1,830 hay bales were destroyed or damaged.

Economic Action

The AFC contributes to forest products marketing and economic development in a number of ways. One of these ways is through the AFC's involvement with the USDA Forest Service's Forest Inventory & Analysis (FIA) program. FIA provides vital statistical data pertaining to Alabama's forest resources. Land consultants and forest industry representatives utilize FIA data to make important decisions regarding where to locate new wood products mills and where to make expansions to existing mills, and often they receive this data from AFC personnel.

The AFC's involvement with the FIA program consists of forest resource data collection by field crews and the fulfillment of forest resource data requests by the FIA Coordinator. The FIA Coordinator responded to over 40 requests for forest resource/industry-related information during FY 2018, created 2 extended reports for industrial users, made one 20-minute presentation at a dinner featuring many members of the Alabama House and Senate, and an hour-long joint presentation to the 2018 Alabama Landowners Conference.

Another way AFC contributes to the marketing of Alabama's forest resources is by the annual development of their "Forest Resource Report." This report contains valuable economic status indicators of the forest industry and forest resources in Alabama for the previous year. The "Forest Resource Report 2017" was completed in May and is available on the AFC website. A hard copy print run was also made.

Finally, the AFC is a member of the Southern Group of State Foresters Services, Utilization, and Marketing (SUM) Committee. The goal of the SUM Committee is to coordinate actions to market forest resources, forest products, and other forest values of the southern U.S. The FIA Coordinator led the 2018 effort to produce the bi-annual Timber Products Output (TPO) Primary Mill Survey, funded this year by an LSR grant. Over 100 mills were surveyed, with results expected to be published in early 2019.

Forest Health

As part of the agency's vision to ensure healthy, sustainable forests for future generations, reducing the impact from invasive species, infectious diseases, destructive insects, and catastrophic climatic events is especially challenging. Non-native invasive pests are most concerning. With their aggressive characteristics, they can invade an area, spread rapidly, and cause detrimental damage to native ecosystems.

Climate variation from an extended drought to excessive precipitation has influenced pine pests other than southern pine beetle. Needle diseases emerged as a main topic of concern during the last few years, especially in 2018. Several hundred acres were affected by these needle pathogens. The main two needle diseases identified were needle cast and pine needle rust. An aesthetic issue and not a serious harmful pest, these needle diseases have caused irreversible damage to affected stands. Several pines have succumbed to these pests.

Hurricane Michael came ashore with winds of approximately 115 mph, and destroyed 42,357 acres of forestland in Houston County with 1,011,819 tons of timber destroyed at a value of approximately \$20 million. The Alabama Forestry Commission assisted landowners affected by Hurricane Michael from road clearing to management recommendations. The Alabama Forestry Commission offered other technical

assistance to forest landowners. There were 1,644 forest health stand management recommendations given to landowners that encompassed 108,647.03 acres.

Forest Health Protection

The emerald ash borer is one exotic invasive insect that is currently present in Alabama causing mortality to native ash trees. Within the three quarantined counties of Calhoun, Cherokee, and Cleburne, mortality of ash trees is noticeable. Natural spread of this pest to neighboring counties is occurring and difficult to control. Laurel wilt disease continues to impact trees in the laurel family throughout the southeast. Redbay trees are known to be the primary host of this non-native invasive disease while other laurel species are considered less susceptible. Sassafras, a secondary host, however, is being reported as a main target of this pest with dying stems in the piedmont and mountain regions. A monitoring project administered by the Forest Service is documenting the rate of spread on this secondary host species beyond the Gulf-Atlantic coastal plain.

Non-native invasive plants have also caused detrimental effects on the forest landscape. Cogongrass, the seventh worst weed in the world has been in Alabama since the early 1900's. Since its introduction at the Port of Mobile, cogongrass has spread throughout the southern areas of the state. A working group consisting of several representatives from agencies and organizations has collaborated to control cogongrass infestations in the Gulf Coastal Plain Ecosystem Partnership area. In this delineated area, cogongrass control treatments were implemented on private lands. A total of 29 applications were serviced with spray treatment completed on 33.45 infested acres.

Infestations of the southern pine beetle declined back to endemic levels this year. One statewide aerial survey was conducted. Of the 67 counties, 47 were surveyed along with 6 National Forest Ranger Districts. A total of 299 beetle spots were detected infesting 8,013 pines. Approximately half of the detected spots were located on national forests.

Forest Inventory and Analysis

FIA is a continuous, nationwide timber and forest resource inventory that has been ongoing for more than 70 years in Alabama. FIA data is the primary source of forest resource information and it plays a vital role in economic development. Some of the more significant information that comes from FIA is the status and trends relating to forest area, forest volume, and tree growth vs. harvest removals. This information is obtained by AFC 2-person field crews that collect a variety of forest resource data from a set of field sample locations (FIA plots) distributed across the landscape at an approximately 3 X 3 mile spacing. When fully staffed, Alabama has 6 field crews whose goal is to sample 15% of the total number of FIA plots annually. The field data collected is transferred by the FIA crew leader to USFS personnel for analysis, and subsequently compiled into statistical reports.

The 2018 FIA Inventory was completed on July 31, with Alabama being the first state in the nation to do so. A total of 755 plots were inventoried in FY18, exceeding the desired goal by 16 plots (2%).

2018 FIA data indicates there are 23.0 million acres of timberland in Alabama, accounting for 69% of the state's total area. This amount of area remains virtually unchanged since 2000. Individual or family-owned forests account for 13.6 million acres, or 59.1% of the state's timberland.

2018 FIA data shows that Alabama is growing timber faster than it is being harvested. The average annual rate of growth-to-harvest removals for all species is 1.79:1 for the period 2011 to 2018. For softwoods, the growth-to-harvest removals ratio is 1.72:1, and for hardwoods, the ratio is 2.02:1.

According to 2018 FIA data, the "loblolly pine" forest type is by far the predominant single forest type in Alabama, occupying approximately 38.6% of total timberland area. The "mixed upland hardwood" forest type ranks a distant second, accounting for approximately 10.0% of timberland acreage.

Forest Legacy

Alabama has 13,819 acres protected through this program. The state routinely looks for properties that are in danger of being converted from working forests to non-forest uses. Working through a partnership with various conservation organizations, environmentally important forestland candidate properties are acquired through conservation easements and/or fee purchases.

Forest Stewardship

Stewardship and TREASURE (Timber, Recreation, Environment, Aesthetics, for a Sustainable, Usable, Resource) Forest certifications totaled 127, adding 43,247 acres to the programs. Scheduled landowner educational efforts permitted the AFC to reach 26,421 private individuals. Commission associates utilize three complementary recognition programs each designed to enhance the non-industrial private landowner's knowledge and understanding of multiple-use forest management. A landowner is introduced to multiple resource management with the National Stewardship Program. Sponsored by the U.S. Forest Service, the program shares multiple-use management concepts through the development of a personalized forest management plan. The forest management plan functions as a road map helping the landowner plan and achieve stated objectives. Alabama is also proud of its flagship stewardship program, TREASURE Forest. This state program identifies and publicly honors forest landowners who manage their property through sound forest management principles. The third program is the American Tree Farm System sponsored by the American Forest Foundation which introduces the concept of sustainability. The Sustainable Forestry Initiative (SFI) promotes sustainable forest management and is recognized through Tree Farm, Stewardship, and TREASURE Forest certifications. The AFC in FY 2018 used the Stewardship Accomplishment Data Loader (SADL) to make annual accomplishment reporting available to the USFS. We intend to continue using the process in FY 2019.

Geographical Information Services

The Alabama Forestry Commission in the past few years has slowly been moving from a desktop GIS system to a web-based centrally integrated Service Oriented Architecture - a paradigm shift! A mission-driven GIS System with a vision to enable web-based GIS technology throughout the agency that can gather geospatial information in a timely manner across the landscape of Alabama. This can be done connected or disconnected from the network, extending GIS to the field while delivering cost effective products and services.

Last year, the Alabama Forestry Commission supported the tornado disaster in Jacksonville, Alabama by developing and enabling a mobile mapping application capable of collecting tree damage data in a disconnected, no-network environment. It was successfully used by in-state and out-of-state forestry emergency crews assisting in tree damage assessment. A dashboard was also developed for a real-time assessment information update.

The damage caused by hurricane Michael was also mapped for the southeastern counties of the state.

Landowner Assistance

Qualified Alabama landowners can apply for financial assistance through a variety of federal and state programs. AFC foresters and technicians are available to meet with landowners and provide technical assistance through on-the-ground assessments, which AFC staff will use to produce written forest management plans.

The U.S. Farm Bill is the primary source of funding for federal financial assistance programs. The distribution of these funds is overseen by the U.S. Department of Agriculture (USDA) Farm Service Agency (FSA) and the Natural Resource Conservation Service (NRCS). These funds are used for a variety of agricultural programs including forestry. The AFC is responsible for writing plans for the implementation of practice requirements for the forestry financial assistance practices.

FSA PROGRAMS

- Conservation Reserve Program (CRP) – AFC county offices wrote 167 Stand Management Recommendations/Plans totaling 6,037 acres during FY18 for general and continuous CRP practices. AFC county offices performed 301 CRP compliance/practice checks on a total of 10,250 acres during FY18.
- Emergency Forest Restoration Program (EFRP) – EFRP funding was requested in five counties: Wilcox, Marengo, Choctaw, Chilton, and St. Clair. AFC wrote 29 EFRP plans for 2,112 acres.

STATE FUNDED PROGRAMS

- Alabama Agricultural & Conservation Development Commission Program (AACDCP)
- AFC counties performed 5 compliance/practice checks on a total of 231 acres during FY18.

Landowner Assistance - NRCS Programs

- EQIP– 147 Stand Management Recommendations/Plans for 10,718 acres
 - AFC county offices performed 25 EQIP compliance/practice checks on a total of 1,420 acres during FY18.
 - AFC personnel checked 20.2 miles of fire lanes on 13 compliance/practice checks
- EQIP Endowment Project
- AFC foresters wrote an additional 20 stand management plans for a total of 1,280 acres.
 - AFC forester completed 7 compliance/practice checks for 169 acres.
 - AFC pilots provided 6 drone flights to generate aerial photos for advanced maps.
 - The AFC conducted an additional Endowment Landowner Tour which had 45 attendees.
 - The primary AFC Forester assigned to the grant completed 7 Stewardship Plans for 273 acres.
- Conservation Activity Plans (CAP) – AFC Technical Service Provider (TSP) foresters received no referrals for CAP plans FY18.

Threatened and Endangered Species

The threatened and endangered species specialist for the Alabama Forestry Commission continues to monitor the federal register and address the impacts of increased numbers of species being protected under the Endangered Species Act. Federal Register activities were discussed among agency employees and necessary comments developed and submitted to the U.S. Fish and Wildlife Service as needed.

This employee met with U.S. Fish and Wildlife Service personnel and other conservation agencies/organizations to gather information regarding Strategic Habitat Units (SHU) and the management of aquatic species. Information gathered was used to create guidelines for incorporating SHU information into stand management recommendations at the work unit level. Management information sheets regarding threatened and endangered plant and animal species were revised as time allowed and uploaded to the agency website for use by agency employees and citizens. An excel spreadsheet listing each threatened and endangered species in Alabama by county was updated as needed. The wildlife biologist represented the AFC at professional conferences, forums, workshops, trainings and landowner tours to share information related to threatened and endangered species issues and activities. The wildlife biologist continues to monitor and assess gopher tortoise populations at Geneva State Forest and Little River State Forest. Four public workshops were held within the range of the gopher tortoise to make private landowners aware of the listing process and solicit input and assistance to gather data regarding population distribution and status. Numerous site visits were conducted on private lands to determine if a population survey was needed as part of the data gathering process. The wildlife biologist met with USFWS personnel and other natural resource professionals at Geneva State Forest to assess habitat suitability for red cockaded woodpeckers and gopher frogs.

Urban and Community Forestry

The Urban and Community Forestry (U&CF) Assistance Program was authorized by the Cooperative Forestry Assistance Act of 1978, Section 9, as amended by the 1990 Farm Bill and most recently funded by the 2018 Farm Bill, and provides technical and financial assistance through the Alabama Forestry Commission to local governments and other organizations within Alabama who are planning urban forestry programs or managing urban forests. In FY18, collaborative teamwork from all stakeholders allowed the Tree City USA communities to rise to 83, the highest number of approved applicants since 2013. Tree Campus USA numbers reached a new high of 13 individual campuses, and a second Tree Line USA applicant was added in 2018. Public meetings at more than 39 cities were held in Alabama for Arbor Week, February 18-24, and AFC employees logged 249 urban forestry technical assists throughout the state during the period. Both the Alabama Urban Forestry Association annual meeting and the Tree Board Academy were supported in FY18, as well as the Your Town celebration, where after 20 years the orientation and education, including urban forestry guidelines, to new city officials was upgraded. Also coordinated by the U&CF was a regional response by the Urban Forestry Strike Team, which occurred on March 17th following the tornado that struck Jacksonville, Alabama, yielding assistance and data needed by the city for response and recovery from the storm.

Grant activities continued in FY18 with data collection concluded and analysis begun for the Canopy and Stormwater Management LaSR grant. Agreements were completed for the \$105,000 grant to fly the northern counties with hyperspectral imagery in preparation of the recently discovered non-native invasive pest, the emerald ash borer. The state was also successful in winning the competitive award of two other

LaSR grants; one on "Trees and the Law" and another on tree canopy and urban forest management in edge communities.

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