



# 2019 Annual Report



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# Forest Management

Forestry-related technical information and assistance is provided to Georgia's private forest landowners by the Forest Management Department to enhance their woodlands for economic, social, and environmental benefits. This system is delivered to private landowners through professional foresters, some of whom are assigned counties and deal directly with the public. Other foresters help implement and deliver regional and/or statewide programs, including: water quality, forest stewardship and legacy, urban and wildland-urban interface, forest health, cost share programs, and forest inventory and analysis. By statute, the GFC is authorized to take action pertaining to the nurture and culture of Georgia's forests and to monitor and suppress forest insect and disease outbreaks. The GFC is also granted authority by the Georgia Environmental Protection Division to monitor and investigate water quality issues pertaining to any type of silvicultural activities.

The Georgia Forestry Commission also manages several state forests for multiple objectives, including traditional forest products, clean water, wildlife habitat, and recreational opportunities. Assistance is also given to other state agencies with the management of forest lands they own. These include the Georgia Department of Natural Resources, Georgia Department of Transportation, University of Georgia, and Georgia Department of Corrections. Assistance to these other agencies varies from developing management plans to meet the owning agency's objectives to conducting a variety of silvicultural treatments (timber sales, site preparation, tree planting, prescribed burning, and planning and implementing road improvements). Additionally, the GFC entered into a "Good Neighbor Authority" agreement with the US Forest Service to use state resources to manage Forest Service land.

GFC foresters and technicians handled 8701 field visits with landowners involving 630,374 acres. Over half of these visits were cost share visits (4,941), with the remainder involving technical advice to landowners in forest health, water quality, forest stewardship and invasive plants. Georgia's forests remain healthy overall and are 91% privately owned. The services GFC foresters provide, along with private consultants and industry foresters, are vital to keep our resource healthy and productive.

## **COST SHARE INCENTIVE PROGRAMS**

Cost share incentive programs play an important role in assisting Georgia landowners with properly managing their forests. The GFC partners with the Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), US Forest Service (USFS), US Fish & Wildlife Service (USFWS) and the Georgia Department of Natural Resources (DNR) to deliver these programs. The GFC takes the lead role on some programs and serves as the technical agency responsible for determining specifications necessary for landowners to install a range of forestry practices. Georgia Forestry Commission efforts in FY 2019 have resulted in a total of \$ 11 million going to landowners to help fund completed practices. See table 1 for a breakdown of the dollars by incentive program.

The following is an overview of GFC accomplishments within each incentive program:

**Conservation Reserve Program (CRP)** – CRP was primarily created to provide soil erosion protection and crop base reduction, but was expanded to improve wildlife habitat. GFC provided assistance on 1,027 CRP cases covering 37,304 acres. As a result of this work, approximately \$956,842 went to Georgia landowners to help fund forest management practices. Also, these participants will receive rental payments annually for the next 10-15 years, depending on the contract length.

**Emergency Forest Restoration Program (EFRP)** – During FY 2019, GFC worked to complete EFRP contracts funded to restore forests destroyed by recent hurricanes and tornadoes. GFC wrote plans for 751 tracts covering 79,132 acres, and certified the performance of 26 practices covering 2,485 acres. As a result of these services, landowners received approximately \$543,022 in cost share payments.

**Environmental Quality Incentives Program (EQIP)** – The Georgia Forestry Commission assisted the NRCS in implementing EQIP forestry practices. Assistance was provided on initial prescription plans for 1,399 contracts covering 90,211 acres. The performance of 1,242 practices was also certified, covering 64,241 acres. As a result of these services, landowners received approximately \$7.3 million in cost share payments.

**Wildlife Habitat Incentives Program (WHIP)** - This program has been consolidated with EQIP but GFC continues to service any remaining contracts. There were three practice performance inspections completed covering 72 acres. These landowners received a total of approximately \$7,660 in cost share payments.

**Southern Pine Beetle Prevention & Restoration Program (SPBPR)** – In cooperation with the USFS, GFC offers cost share to help minimize the impacts of the southern pine beetle. The grant is primarily utilized for direct cost-share payments to landowners to implement several prevention practices to treat high risk stands and for several restoration practices. Landowners deal directly with their county GFC forester for all phases of the program (application, needs determination, practice supervision, performance check, final reporting and payment requests), and payments are made directly from the GFC Administration Department in Macon.

Assistance was provided on initial prescription plans for 199 landowners covering 14,621 acres. There were 152 practice performance certifications completed covering 10,523 acres. As a result of these services, landowners received \$207,352 in cost share payments.

**Invasive Species Plant Control Program (ISPC)** - The USFS has provided federal grants in this program area to help control invasive plants in Georgia. These grants were primarily utilized for direct cost-share payments to Georgia landowners to help control privet, Japanese climbing fern, tallow tree, chinaberry, and callery pear.

Assistance was provided on 40 initial prescription plans covering 1,621 acres. GFC personnel went on to certify the performance of 32 plans covering 1,417 acres. As a result of these services, landowners received \$49,225 in cost share payments.

**Forest Debris Management Program (FDMP)** – Following Hurricane Michael in the fall 2018, the Georgia General Assembly designated funds to help landowners manage forest debris from the storm. During FY 2019, GFC foresters completed 141 practice performance certifications covering 12,042 acres. These certifications resulted in approximately \$1.96 million in payments to landowners who incurred damage from Hurricane Michael.

Table 1: Incentive payments to GA landowners related to GFC services in FY 2019

<b>Program</b>	<b>\$ Received</b>
EFRP	\$543,022
WHIP	\$7,660
EQIP	\$7,317,355
SPB	\$207,352
CRP	\$956,842
Invasive Plant	\$49,225
FDMP	\$1,962,156
<b>Totals</b>	<b>\$11,043,612</b>

## **FOREST HEALTH**

The Forest Health Management Group provides statewide leadership and guidance to consulting firms, industry, natural resource managers, landowners, and Georgia Forestry Commission (GFC) foresters on a wide range of forest health related issues. Georgia Forestry Commission foresters incorporated insect, disease, or invasive species advice into 465 management cases involving 17,439 acres for the year.

Each stewardship and tree farm plan written in the State of Georgia incorporates advice to landowners concerning forest health issues, and insect and disease advice is incorporated in each plan; 176 plans were presented to landowners with a total acreage of 61,270 acres. Additionally, 319 acres of cogongrass have been treated with all known sites being sprayed at least once, and approximately 85% of all known sites are being reported as negative for cogongrass. There are 126 sites in Georgia that have shown one year of negative post inspection, 127 sites that have shown two years of negative post inspection, and 814 sites have been declared eradicated. Statewide, forest health training was provided to foresters, resource managers, loggers, public works departments (state and county), nurserymen, regulatory agencies, and landowners on 73 occasions with 4,205 attendees being reached. Additional surveys are conducted by the Forest Health staff to identify non-native pests seen as a potential threat to native species. These include: emerald ash borer, Sirex noctillio woodwasp, non-native bark beetles, gypsy moth, Heterobasidion root disease, thousand canker disease, hemlock woolly adelgid, and the pathogen Phytophthora ramorum, which is responsible for substantial west coast tree mortality. Our forest health staff conducted 4 multimedia interviews with an estimated audience of 75,000.

## **FOREST STEWARDSHIP PROGRAM**

A Forest Stewardship management plan can be provided to landowners interested in managing their forestland for multiple use purposes such as timber, wildlife habitat, recreational opportunities, aesthetics, and soil and water conservation. This is a detailed and comprehensive management plan written by natural resource professionals with backgrounds in forestry, wildlife biology, soil science, and recreation management. Landowners with an interest in multiple use management begin by completing an official application which details their interests and objectives. The resource professional responsible for constructing the plan will evaluate the property and develop a management program to help the landowner reach their objectives while improving the management of all resources. The forest stewardship program completed its 29th year of service to Georgia's forest landowners with a current total active enrollment of 2,392 plans covering 767,432 acres. 227 plans covering 71,561 acres

were added this past year. In addition, the program seeks to partner with many like-minded groups and organizations to promote multiple resource stewardship. Partnerships with the American Forest Foundation, Tree Farm, National Wild Turkey Federation, Quail Forever, and the Natural Resource & Conservation Service are just a few examples where the GFC works together to host events, field days, and etc.

## **URBAN AND COMMUNITY FORESTRY**

During FY 2019, Georgia had 163 Tree City USA communities which was an increase of eight new cities from the previous year. Almost 32% of Georgia's population lives in a Tree City USA community. There were also two new Tree Campus USA schools bringing GA's total to 21, along with one Tree Line USA utility.

Funds from the Urban & Community Forestry Assistance program were used to contract with the Georgia Urban Forest Council to utilize circuit-rider arborists to make personal visits and assist communities in developing community forestry programs. The circuit rider arborists contacted 137 communities or organizations to create or revise tree ordinances, develop management plans, conduct hazardous tree assessments, assist with Tree City USA certifications and/or conduct trainings/workshops for municipal tree care workers. Additional services provided by the circuit riders included conducting two Certified Arborist Review classes. These classes were held over two days and trained 72 tree care workers and potential arborists. Many attendees went on to take the test to become an Arborist Certified by the International Society of Arboriculture. In addition, a partnership was developed with the Georgia Electric Membership Corporation (EMC) to provide Certified Arborist Review Classes for utility workers. This partnership has the potential to train hundreds of utility tree care workers in the standards of arboriculture. The first class is planned for August 2019.

U&CF funding was also used to complete Making the Shade projects, which planted 81 trees at two schools to shade playground equipment and provide a healthier play environment. SCFP also partnered with Keep Georgia Beautiful to provide 10,000 seedlings for distribution at their Bring One for the Chipper events.

The SCFP also continued to provide technical advice through the Ask the Arborist (ATA) project to communicate more effectively with homeowners across the state and provide citizens with timely, unbiased information from a GFC-certified arborist. The GFC received funding to help create and expand the American Grove, [www.AmericanGrove.org](http://www.AmericanGrove.org), a social networking website that reaches consumers with tree benefits messages and encourages them to take action and plant trees.

Two projects utilized special LSR funding from the US Forest Service. The project with the Green Infrastructure Center out of Virginia that was started in FY18, wrapped up in FY19. Case studies were developed for the cities of Alpharetta and Norcross that provided analysis and recommendations for incorporating trees into their stormwater management program. Another project involved partnering with the Georgia Urban Forest Council to provide scholarships for utility workers to attend the national "Trees and Utilities" conference in order to gain a better understanding of working with trees in utility corridors. In addition, production was started on a video that would demonstrate to homeowners how strategic tree planting could result in energy savings.

SCFP continues to support local grass roots community forest groups and programs through Arbor Day, Tree City USA, and other educational programs and technical transfer efforts, expanding community capacity for developing sustainable community forests. SCFP provided funding or sponsorship to several

professional organizations to help expand their capacity or support specific projects or programs. These include providing funding to hire an Administrative Assistant for the Coastal Arborist Association and sponsorship of programs or conferences held by the Georgia Arborist Association and Park Pride Atlanta.

After Hurricane Michael made landfall in Florida and Georgia on October 10, 2018, SCFP deployed a team to conduct initial damage assessments to community forests in the affected area. Two weeks later, GEMA requested the assistance of the Urban Forest Strike Team (UFST) to work in conjunction with the U.S. Army Corps of Engineers (USCOE) and conduct hazardous tree assessments on public properties in 13 counties. The team spent over 500 hours completing the assessment and providing the data to the USCOE for mitigation. Subsequently, GEMA requested the assistance of the team to provide hazardous tree assessment training to a number of members of the USCOE and in December again requested assistance with estimating the volume of debris still to be collected in two of the hardest hit counties. The team spent approximately 150 hours providing the training and completing the debris estimate.

## **WATER QUALITY PROGRAM**

For Georgia's Fiscal Year 2019 (July 1, 2018 – June 30, 2019) GFC completed the items that follow. Funded largely through the EPA Section 319 grant program, handed down from GA-EPD, the GFC Water Quality program was staffed with one State Water Quality Program Coordinator, four Water Quality Specialist Foresters, and seven Region Water Quality CDI Foresters. During FY19, GFC water quality foresters provided 144 BMP talks to 6756 people. In addition, GFC water quality foresters put on 15 BMP field demonstrations with 386 people in attendance. GFC foresters investigated 28 separate water quality complaints requiring 55 site visits to mediate. GFC foresters completed a total of 89 BMP Assurance Exams on harvests and other management activities. Water quality/BMP advice was given during the course of 230 general advice site visits for landowners on a total of 58857 acres. GFC water quality foresters, field foresters, and management staff completed 227 state and region level firebreak BMP inspections on GFC firebreaks. During the first part of FY19, GFC foresters collected and vetted at least 250 forestry sites to be inspected in detail for the 2019 BMP Survey. Later, GFC water quality foresters completed 172 detailed site inspections for the 2019 Silvicultural BMP Survey, out of a total goal of 250 sites planned to be finished by the end of calendar year 2019. A comprehensive report detailing the results of the full survey is planned to be completed and provided to GA-EPD at the end of calendar year 2019.

The GFC continues to be involved with the Regional Water Planning Councils throughout the state as those councils have continued to meet periodically. The GFC water quality program continues to stay engaged in various meetings including various forestry/water stakeholders such as natural resource agencies, regulatory agencies, policy makers, local officials, landowners, foresters, loggers, forestry contractors, forest industry, academia, non-government conservation organizations, general public, etc. During FY 2019 GFC personnel participated in 200 such meetings with 4,850 people attending. The GFC water quality staff updated the GA Forestry BMP Manual to a 2019 version, with input from various stakeholders.

During FY 2019, GFC continued the process of reviewing projects in three major watershed areas of GA: Lower Savannah River, Oconee River, and Middle Chattahoochee River. This was done under an LSR Grant from the USFS to help make people aware of the important connections between retaining forestland (especially working forestland), good forest management, and healthy water supplies.



## **STATE LANDS FOREST MANAGEMENT**

The Georgia Forestry Commission's State Lands Forest Management program is in place to assist our sister agencies with management of their forestlands. The program's current responsibilities require five full time employees: a staff forester serving as the coordinator; two field supervisors, one in North Georgia and one in South Georgia overseeing field work; and two state lands technicians. State of Georgia public lands we help manage reach to all four corners of the state and everywhere in between. Georgia sister agencies with which we have entered into interagency governmental agreements and are receiving our management assistance on a regular basis include: Department of Natural Resources; UGA College of Agricultural and Environmental Sciences; Department of Transportation; and Georgia Correctional Industries, part of the Department of Corrections. Other agencies receive assistance when requested. In addition, the Good Neighbor Authority Wireskull Agreement allows for opportunities with the U.S. Forest Service.

### ***Georgia Department of Natural Resources***

The Department of Natural Resources (DNR) owns the majority of state owned land, including wildlife management areas, public fishing areas, state parks and historic sites and natural areas. Our Fiscal Year 2019 DNR responsibilities have been primarily conducting timber sales. This included assisting DNR foresters in the field with marking and cruising timber, marking sale area and streamside management zone boundaries, GPS work, BMP inspections, preparing timber sale bid packet information, advertising timber sales, and other aspects of timber sale administration. Eighteen timber sales occurred during FY 2019. Assistance was also given with site preparation and prescribed burns.

### ***University of Georgia - College of Agricultural and Environmental Sciences***

The University of Georgia's College of Agricultural and Environmental Sciences (UGA CAES) forestlands are located on their experiment stations. One timber sale was conducted during FY 2019. Reforestation planning and coordination occurred regarding previously harvested sites on Tifton Campus farm sites.

### ***Georgia Department of Transportation***

Mitigation properties owned by the Department of Transportation (GDOT) serve to offset other GDOT activities where wetlands and endangered species are negatively affected. The GFC helps manage some of these properties. GFC handled all aspects of GDOT timber sale administration during Fiscal Year 2019. Work continued during FY 2019 on the Little River Tract in Putnam County, involving a timber salvage and harvest operation. Further reforestation planning and coordination occurred on the Long County tract; however, a planned replanting effort did not occur due to high water levels prohibiting access. Timber harvesting on Little River Tract is to continue into FY 2020. Expected FY 2020 timber sales are located on the Mayhaw tract in Miller County and Flint River Ravines tract in Upson County.

### ***US Forest Service***

The first timber sale under the "Good Neighbor Authority" Wireskull Agreement on the Oconee Ranger district continued. The second of the three additional timber sales, Check Redlands 1, 2 & 3, to the Wireskull Agreement was prepared with the bid sale to occur before the end of the fiscal federal year.

### ***Timber Transaction Complaints***

The Georgia Forestry Commission assumed the role of investigating timber transaction complaints on July 1, 2015. State Lands Forest Management assists with investigations by performing stump cruises. Twenty-two stump cruises were performed in FY 2019.

## **LOOKING FORWARD TO FY 2020**

FY 2020 will be busy for GFC's State Lands Forest Management, as we continue to assist our sister agencies in the management of State of Georgia forestlands, continue with new GNA opportunities with the U.S. Forest Service and assist our investigators by performing stump cruises.



# Forest Protection

## WILDFIRE ACTIVITY

Wildfire occurrence for Fiscal Year 2019 (FY19) was well below the 5 year average. We experienced 2,005 wildfires that burned 7,036 acres in Georgia. The number of wildfires and acres burned by wildfires was the lowest in the last 62 years. The average size of each wildfire was 3.50 acres which is below the average normally experienced. The largest wildfire occurred in Seminole County and burned 124 acres on private lands.

## COUNTY AND AREA OFFICE OPERATIONS

The GFC provided 1,622 burn assists for landowners in Georgia totaling about 136,005 acres, or about thirteen percent of the total acres prescribed burned in GA., which includes assistance to landowners for agriculture, silviculture and land clearing types of burns.

Total Burn Assist Number	1,622
Total Burn Assist Acre	136,005

Pre-suppression plowing and harrowing services in FY19 decreased in the number of landowners serviced as well as the total hours/miles of firebreaks installed when compared to the previous fiscal year. In FY19, the GFC performed a total of 3,761 plowing/harrowing services for landowners for a total of 11,483 hours of firebreaks installed by GFC professionals using tractor/plow/harrow equipment.

Year	2019
Total Plowing and Harrowing Serviced	3,761
Total Plowing and Harrowing Miles	21,966
Total Plowing and Harrowing Hours	11,483

## WILDFIRE PREVENTION

GFC again provided fire prevention efforts through large events across the state, including: The Georgia Mountain Fair, Moultrie Sunbelt Expo, the Buck-a-Rama, Fish-a-Rama, Turkey-a-Rama, Georgia National Fair in Perry, and Georgia Outdoor Expo in Gwinnett.

The GFC took advantage of social media outlets to assist in fire prevention messaging. Facebook and Twitter were used primarily to convey information, especially during wildfire incidents, to take advantage of a captive audience to provide fire prevention campaign messages and the importance of preventing wildfires.

The GFC continued to provide programs in which wildfire prevention was the primary theme, and included appearances by Smokey Bear to promote fire prevention in Georgia. In FY19, there were 389 fire prevention programs or interviews conducted by the GFC professionals who invested 1,850 hours. It is estimated fire prevention efforts reached over 104,755 million citizens in Georgia and through many media sources.

<b>Fire Prevention Programs Conducted</b>	<b>GFC Hours Invested</b>	<b>Audience Size</b>
<b>389</b>	<b>1,850</b>	<b>104,755</b>

### **COMMUNITY WILDFIRE PROTECTION PLANS (CWPP)**

As of June 30, 2019, 141 County-wide Community Wildfire Protection Plans (CWPP) in Georgia have been completed. It is not anticipated any further new CWPP's will be added, however, updates to current plans are continuing. Through partnership with the Georgia Emergency Management and Homeland Security Agency, it has now been made mandatory for all counties to complete or renew their CWPP as part of the county's Hazard Mitigation Plan.

A CWPP provides a community or county road map to reduce its risk from wildfire. A CWPP is designed through collaboration between state, local, and federal fire agencies, homeowners, adjacent landowners, and other interested parties. This planning enables counties in Georgia to address their development patterns in the Wildland Urban Interface (WUI) and determine how they can begin to reduce their risk.

Forest Protection staff members and our field personnel have examined CWPPs completed in 2011 and 2012 and are continuing to make contact with local county officials to update CWPP's. In FY19, only one CWPP was updated.

### **FIREWISE & FIRE ADAPTED COMMUNITIES PROGRAMS**

The Firewise USA Recognition Program is a process that empowers neighbors to work together in reducing their wildfire risk. The GFC continued to contract with Georgia's Rural Conservation and Development Councils (RC&D) in an effort to engage more local participation. Georgia currently has 104 Firewise USA communities as of June, 2019, with other communities beginning to develop risk assessment and action plans to prepare for becoming certified as a Firewise USA community.

A fire adapted community incorporates people, buildings, businesses, infrastructure, cultural resources, and natural areas into the effort to prepare for the effects of wildland fire. Community leaders and residents accept responsibility for living in an area with wildfire hazards. They have the knowledge and skills and have adopted tools and behaviors to prepare in advance for their community's resilience in a wildfire prone environment.

### **LAW ENFORCEMENT**

From July 1, 2018 through June 30, 2019 (FY19), GFC Investigators opened a total of 43 new wildfire investigation cases. There were 27 arson cases which resulted in sixteen criminal charges filed as a result of these investigations.

## **REGIONAL RESPONSE CENTERS**

The GFC operates two regional Dispatch/Response Centers. One located in Macon, GA at the GFC HQ complex referred to Central Response Center (CRC) operates 24 hours per day, seven days a week. The other located in Tifton, GA adjacent to our Tift Co. Forestry Unit known as Southern Response Center (SRC) operates from 7:00am until 7:00pm each day with capabilities to continue beyond normal hours as wildfire situations require. During FY2019, the GFC Response Centers issued 20,159 burning permits for agriculture, silviculture and land clearing in the state, which accounted for about 28% of the total burning permits issued.

The Response Centers' primary objective is to receive reports of wildfires and dispatch GFC personnel and equipment to those locations. In FY19, the Response Centers communicated with and tracked resources on 2,005 wildfires, documenting important information concerning wildfire situations, resource needs and entering time information.

The Response Centers continue to use Spider-Tracks and the GFC Flight Following and Tracking system, in which each aircraft is tracked and dispatched to locations for smoke investigations or wildfire support operations.

## **STATEWIDE AIR OPERATIONS**

While maintaining our overall mission of detecting wildfires and supporting suppression efforts, the Air Operations Unit has continued to focus on the overall goal of being a safer, more efficient, and more effective aviation program within the GFC.

Air Operations pilots flew 3,781 hours for all type of missions, reported 89 wildfires and provided support on 127 wildfires, reported 980 controlled burns and checked 15,721 controlled burns. The GFC Single Engine Air Tanker program was formally launched this fiscal year. Pilot operational and aerial suppression tactics training using SEATs was conducted with approx. 650 hrs. of training logged. The Air Operations Maintenance team performed 104 aircraft maintenance and repair projects on GFC aircraft in FY19.

## **PRESCRIBED FIRE**

Prescribed fire continues to be the best, most cost efficient forest management tool for wildlife management, protection of the forest from wildfires, restoration of fire dependent forest ecosystems, forest regeneration, and control of certain unwanted plant species. In FY 19 there were 812,011 burning permits issued for 1,050,202 acres of prescribed burning in Georgia and reported within our burning permit information system. Silviculture burning accounted for the majority of those acres at about 808,183 acres. The Georgia Forestry Commission continues to give on-the-ground assistance while also providing technical advice, weather forecasts, assistance in writing plans, and prescribed fire workshops for landowners across the state.

This year four certification courses were held across the state with 154 students attending. To date, there are 3,277 certifications have been issued burn practitioners in Georgia.

The Georgia Prescribed Fire Council held two statewide meeting this fiscal year. One in September, 2018 at the UGA Conference Center in Tifton and the other in Jasper, GA in February 2019. Over 500 burn practitioners combined where in attendance. Visit the council's website at [www.garxfire.com](http://www.garxfire.com) for more information about the Prescribed Fire Council's activities and annual meeting.

## **FIRE WEATHER FORECASTING**

Wildfire behavior is determined by forest fuels, surrounding topography, and weather conditions such as wind and relative humidity. Daily readiness for fire suppression is usually expressed in terms of fire weather and fire danger.

The GFC Fire Weather Website averaged about 70,000 visitors and about 60,000 hits per month.

Georgia uses a sophisticated National Fire Danger Rating System in which weather data is measured at 19 GFC weather stations and interpolated into levels of readiness understood by forest rangers and fire cooperators. The fire danger ratings with fire weather forecasting are produced daily by the Forest Protection meteorologist and are posted on [GaTrees.org](http://GaTrees.org).

Valuable tools and information for forest managers intending to conduct prescribed burning are available on the fire weather website. These tools include weather maps, rainfall maps, drought maps, lightning maps, point-forecast system, a prescribed fire climatology system, prescribed weather notification system, and web-based V-smoke application.

The GFC continues to utilize two weather station coordinator positions to help the GFC meteorologist monitor data quality from our weather stations. The coordinators assisted the meteorologist to make sure all hourly data is collected from all our weather stations.

## **RURAL FIRE DEFENSE (RFD) PROGRAM**

The GFC's Rural Fire Defense Program continues to assist local county and municipal fire departments through acquisition, fabrication and repairs/modification of fire apparatus. In addition, funding to support fire departments within communities of fewer than 10,000 population provides opportunities for training, personal protective equipment and water handling supplies. The RFD program administers the Volunteer Fire Assistance Program funding through federal grants provided by the US Forest Service.

The RFD program supported 423 fire departments in Georgia with over 1,855 pieces of fire suppression equipment in 136 counties. This equipment is in the form of vehicles, fire pumps, water tanks and various other types of fire protection apparatus. Through cooperation and partnerships, Georgia's local fire service agencies supported the GFC in its mission of protecting the forest resources of Georgia by responding to and assisting with the suppression of 2,522 wildland fires in FY19. In addition, the training and equipment provided through the RFD program supports local fire departments in their response to local emergencies, such as motor vehicle accidents and fires, structure fires and other miscellaneous emergency responses. In many locations and communities throughout Georgia, the vehicles and equipment provided by the GFC are the only emergency response apparatuses available to citizens.

The GFC works closely with the Rural Fire Defense Council in Georgia to ensure the programs and projects being offered add value and are best utilized for their intended purposes. There were four regularly scheduled quarterly meetings held with the Rural Fire Defense Council in FY19.

RFD Fiscal Year Fire Summary					
Cooperating Fire Departments	Statewide Report				
Fiscal Year	2019		Level of Damage		
Type Fire	Number	Acres	Light	Moderate	Extensive
Wildland (or the old Forest Land)	2,522	4,426.38			
Open Land	0	0.00			
Motorized Equipment	1,379	0.00	516	378	485
Structural	1,908	0.00	884	504	520
Miscellaneous	13,372	0.00	0	0	0
Grand Total	19,181	4,426.38	1,400	882	1,005
Number Pieces Of Equipment NOT In Service			225		
Total Number Pieces Of Equipment			1,855		
Number Counties Utilizing RFD Equipment			136		
Number Departments Utilizing RFD Equipment			443		
Total Number Of RFD Stations			1,110		
Number Of Outstanding Requests: Lease/FED/State Excess			682		
Number of Fire Department Meetings Attended by GFC Personnel			2,329		

## EQUIPMENT AND RFD FABRICATION SHOP

The GFC's fabrication shop continues to provide construction, repairs and oversight of both GFC and Rural Fire Department vehicles and equipment. The majority of the activities carried out in the fabrication shop are performed to support fire suppression equipment being provided to GFC county units as well as Rural Fire Departments throughout the state. Continuous process improvements occur frequently as new vehicle and equipment configurations that require modifications to designs and fabrication phases are introduced. GFC fabrication welders and mechanics strive to provide high quality and timely products that keep the GFC's fire suppression fleet in a constant state of readiness. Fabrication staff works closely with the RFD program coordinator and the GFC's district and county units to support local fire departments in fabricating and repairing fire apparatus to support their mission and efforts. In FY19, the Fabrication shop performed and completed a total of 378 work projects.

Equipment Classification	New	Repair	Paint	Other	Total Number of Projects
Electrical	0	0	0	0	0
Fire Knocker	1	1	2	0	4
Fire Knocker (Super)	4	0	1	0	5
Harrow	1	31	2	0	34
Motor Vehicle	2	3	18	0	23
Others	32	33	18	2	85
Plow	7	43	12	0	62
Pump	1	0	1	0	2
Tank	17	15	2	1	35
Tractor	14	26	3	0	43
Trailer	2	12	5	0	19
Truck Bed	6	27	3	0	36
Type 6 Engine	1	7	0	0	8
Type 7 Engine	0	4	1	0	5
V-Blade	2	14	1	0	17
<b>Total</b>	<b>90</b>	<b>216</b>	<b>69</b>	<b>3</b>	<b>378</b>



# Communications

Communications staff for fiscal year 2019 consisted of a director, an administrative assistant/graphic artist, a conservation education coordinator, a media specialist and a new multimedia specialist (for part of the year).

During the year, 36 press releases were produced and hundreds of news articles appeared in print. In addition, various magazine articles appeared in publications as diverse as *Georgia Forestry*, *Out of the Woods* and *Georgia County Government*, among others. Many radio and television appearances were made, with topics ranging from fire prevention and fire activity to Arbor Day.

GFC continued to strengthen its presence on social media in fiscal year 2019. GFC now has pages on Facebook, Twitter, LinkedIn, Instagram, YouTube and Flickr. All agency press releases were shared on these pages, as were photos of GFC events and professionals. Social media has quickly become one of our main avenues of disseminating information to our publics in a timely manner.

GFC's e-Update, our bi-monthly e-newsletter, continues to expand. Throughout FY19, the publication was emailed to over 10,000 customers, partners, elected officials and individual subscribers every two to three months. With each new edition, we see the number of subscriptions increase.

Professionals across the state again tied in with First Lady Sandra Deal's Read Across Georgia month. Throughout the month of March, GFC professionals read Chuck Leavell's *The Tree Farmer* to elementary students throughout the state. Readings were documented on social media with the established hashtag #ReadAcrossGA, and photos were shared by the Department of Education and other educational groups.

A great deal of outreach was done to help landowners who suffered damage from Hurricane Michael in October of 2018. Local, statewide and national media coverage resulted from efforts, and the PR department assisted in many public events to help educate landowners as well.





# Forest Services, Utilization, & Marketing

The mission of the Forest Services, Utilization, and Marketing (SUM) department is to add value to Georgia's forest industry via customer-centered services and assistance.

Beyond Georgia initiatives, SUM provides regional and national assistance to forestry agency partners and other organizations in efforts to expand the forest industry in the U.S. South and nation.

Upon GFC reorganization effective 1 July 2018, Forest Utilization and Marketing was renamed Forest Services, Utilization, and Marketing, gaining the Forest Inventory and Analysis<sup>1</sup> (FIA) program from Forest Management, including one staff forester and twelve foresters; and one analyst from the Operations Department, for a total of eighteen personnel<sup>2</sup>.

## ACTIVITIES AND ACCOMPLISHMENTS

Following are summaries of the activities and accomplishments in the two program areas of the SUM department: Forest Inventory & Analysis and Forest Utilization – which is subdivided into three components: utilization, marketing, and economic development.

### FOREST INVENTORY & ANALYSIS

**Goal:** Conduct inventories of Georgia's forests in coordination with the U.S. Forest Service.

**Driver:** Periodically gather land and forest resource data from a series of permanent sample plots in order to assess the current forest resource status and trends in Georgia.

**Service Delivery:** Forest inventories enable GFC to provide guidance and assistance to policy makers, existing and prospective forest industries, forest industry consultants, researchers, and managers alike, in the sustainable utilization of Georgia's renewable forest resources.

**Output:** Foresters collected data on a total of 1,263 plots; approximately 1,160 plots in one sub cycle. Of these, 92 plots were National Forest Plots (Chattahoochee and Oconee National Forests), mostly in the mountainous northern region of Georgia (Chattahoochee), with downed woody debris data collection added. Downed woody debris collection is added to all plots in and surrounding National Forests to build fuel models and also for total carbon counts, which includes dead and down vegetation. Sixty-two of the plots were P2-Plus Plots that have added crown variables to each tree, downed woody debris on each subplot, and vegetative profiles collected on each subplot. A percentage of the completed plots are checked for accuracy and the average accuracy for Georgia's FIA foresters was 96% for the fiscal year, up 1% from FY 2018. GFC data collection productivity remained high this year due to receiving full FIA funding again from the USFS, which allows GFC to fully staff the program with 12 FIA foresters.

Staff slightly exceeded 5-year cycle plot goals again this year allowing for a continuation of gaining back productivity previously lost in recent low budget years; full USFS funding is critical for meeting GFC FIA goals. Other notable accomplishments include: all staff attended, and successfully passed, required USFS FIA certification training; Georgia's FIA program met or exceeded all requirements in USFS/GFC contract; three foresters attended Georgia Basic Wildland Firefighter (GBWF) training; one staff forester attended the annual USFS/SGSF FIA Committee Meeting in Mobile, AL; several staff assisted the USFS with plot measurement procedures training for a Filipino Forestry Department delegation; two foresters volunteered for a USFS western wildfire assignment.

## UTILIZATION

**Goal:** Establish new forest products and values from the forest.

**Driver:** Sustaining economic viability of forest ownership is critical to encouraging forest owners to keep their lands as working forests; healthy, sustainable forests provide clean air, clean water, and abundant products for future generations.

**Service Delivery:** The department champions market growth of all forest industry sectors via forest industry surveys, and research, development and technology transfer of new and existing products that may lead to new income streams for forest owners including sequestered carbon and other ecosystem service valuations, forest planning and financial analyses.

**Output:** Staff conducted two U.S. Forest Service Timber Product Output primary wood-using mill surveys, completing 121 surveys: the 2017 survey was a 100% canvass conducted bi-annually, while the 2018 survey was a new annual 40% canvass of the largest producing mills. Staff provided three forest planning and financial analyses assists using Simulator for Managed Stands (SiMS) growth and yield modeling to educate forest owners on improving economic outcomes from various forest management scenarios. Staff provided two technical advice/reports on carbon sequestration, carbon markets, Georgia's Carbon Sequestration Registry and other ecosystem services that may lead to new values realized from forests. Staff attended 18 technical conferences and transferred this information to customers, company prospects, and the general public through various media and outreach/education efforts. Staff maintains, monitors and collects growth data on two, seven-year-old, "flex-stand" biomass reforestation demonstration plots, located on the Bartram and Dixon state forests, which may result in new forest biomass silvicultural prescriptions and potentially new income streams from forest biomass. Staff continued research on four, multi-year and multi-state projects including construction sector wood usage, forestry sector economic impact modeling, urban forest wood utilization and projections on timber harvest and wood supplies. Staff provided pre-publication peer review of two technical U.S. Forest Service documents: Southern Pulpwood Production, 2016 and Forests of Georgia, 2016".

### **Output Details Include:**

- Continuing Education Attended:
  - Southern Timber Innovations Conference, New Orleans, 8/12/2018
  - Georgia Tech Renewable Bioproducts Institute, Annual Conference, Atlanta, 10/4/2018
  - Urban Wood Utilization Academy, Baltimore, 12/2018
  - Georgia Forestry Association, Forest Logistics Summit, Tifton, 1/25/2019
  - Georgia Tech Renewable Bioproducts Institute, Workshop, Atlanta, 2/28/2019
  - International Mass Timber Conference, Portland, 3/19/2019
  - Troup County, GA, Tax Assessors Informational Meeting, 4/2019
  - Southern Forest Resource Assessment Consortium, Annual Meeting, Durham, NC, 8/8/2018
  - N.C. State University, Sub-Regional Timber Simulation, inventory modeling, Durham, NC, 8/9/2018
  - University of Georgia, Intensive Forest Management Workshop, Statesboro, 8/15/2018
  - SGSF SUM Committee, Southern Forest Products Export Conference, Memphis, 10/21/2018

- Georgia Department of Economic Development, Georgia Logistics Summit Regional Forum, Cartersville, 3/14/2019
- WoodWorks, Wood Design Seminar-Mass Timber Construction: Products, Performance & Design, Atlanta, 4/9/2019
- University of Georgia, Wood Pellets & Wood Sourcing for EU Pellet Demand Conference, Athens, 5/1/2019
- Utilization Outreach Events:
  - Georgia Forestry Association, Annual Conference, Hilton Head, 7/16/2018
  - Georgia Property Heirs, Conference, Rock Eagle, 8/2018
  - International Beams, Tour, Dothan, AL, 10/9/2018
  - Southern Group of State Foresters/U.S. Industrial Pellet Association, Wood Pellet Mill & Port Tours, Waycross, Savannah, 4/29/2019
- Notable Technical Assistance Conducted:
  - Provided testimony on forest sustainability and economic impacts at the GA Public Service Commission's public hearing on Georgia Power's Integrated Resource Plan re woody biomass carve-out proposal for bio-electricity generation, 4/8/2019
  - Provided information to forest industry and prospective companies re taxation in Georgia's federally-defined "Opportunity Zones", 4/2019
  - Provided guidance to GA Public Service Commissioners during a tour of the Piedmont Green Power bio-electricity generation plant, Barnesville, GA; and field tour of biomass chipping operation, 5/2019
  - Significant assistance was provided in response to Hurricane Michael in October 2018
    - GFC Urban Forest Strike Team, Community Tree Canopy Assessments, southwest GA, 11/2/2018
    - Georgia Emergency Management Agency, Liaised with JSO Debris Removal Task Force
    - GFC/UGA, Post-Hurricane Michael forestry series, Bainbridge, Colquitt, Cordele, 5/7/2019
      - Provided three presentations on timber salvage options for 130 timber owners, who own/manage 770,000 acres in the hurricane's path
      - Provided testimony at two Georgia Dept. of Revenue timber tax credit meetings
      - Provided guidance at several timber salvage meetings with 76 timber suppliers and primary wood-using industries
      - Contacted John Deere R&D engineers re timber harvesting and GIS technology for future harvesting, reforestation planning on salvage clear cuts
  - Provided assistance to procurement forester and biomass supplier contractor at Georgia Renewable Power, Colbert, GA, 6/2019
- Research & Development – U.S. Forest Service Grant Projects:
  - Biomass Reforestation Demo Plots – Bartram, Dixon state forests, 7-yr old; new income streams
  - Procurement Decision Practices in the U.S. Construction Sector (SC lead) – how & why wood is utilized
  - Determining the Economic Contribution and Impact of the Forestry Sector at the County Level and the South (KY lead) – IMPLAN economic modeling reports, training for state U&M personnel
  - Expanding Markets, Management and Utilization of Urban, Community and Interface Forests (VA lead) – barriers & opportunities for increased utilization of urban wood sources
    - Partnered with GFC Sustainable Community Forestry Program (SCFP) to study wood waste generated by the City of Columbus, GA
  - Wood Supply Assessment (FL lead) – harvest & supply projections

## MARKETING

**Goal:** Strengthen and expand domestic and global markets for Georgia forest products.

**Driver:** Total economic activity supported by the forest industry in Georgia (including the multiplier effect) was \$36.3 billion in 2018. These activities supported the employment of 148,414 people who earned \$9.1 billion in wages and salaries (including benefits). Maintaining the forest industry's status as one of the top economic drivers in the state is critical, particularly for rural communities.

**Service Delivery:** The department markets and promotes the state's forest resources through print and online media and public speaking venues; forest industry economic impact reports; and by cultivating new customers at domestic and international trade shows.

**Output:** Staff managed content of the Southern Regional Extension Forestry (SREF) online marketing directories, Forest Products Locator, for Georgia primary and secondary wood-using industries. Staff provided content for two publications, the legislatively-mandated five-year GFC report to the Georgia General Assembly, Sustainability Report for Georgia's Forests: January 2019, and a periodical article for the Southeastern Wood Producers Association. Staff provided testimony at a Georgia Senate Natural Resources Subcommittee hearing on forest sustainability and SUM department responsibilities. Staff cooperatively assisted GFC Forest Management and Public Relations with website content management, including timber harvester's database updates, and editing content for the planned new GFC website, respectively. Formal speaking presentations were provided to 352 attendees at seven outreach events. Staff coordinated and contracted with the Georgia Institute of Technology Enterprise Innovation Institute to conduct an IMPLAN economic analysis of Georgia's forest products industry. Staff displayed marketing outreach exhibits at four domestic and one international trade shows, generating 83 direct export trade leads. In addition, memberships in the American Hardwood Export Council/Hardwood States Export Group and the Southern Forest Products Association/Southern Pine Council generated 189 indirect export trade leads. All totaled, 272 export trade leads for Georgia wood products were distributed to Georgia's primary and secondary wood-using industry exporters.

### **Output Details Include:**

- Published Publications: 2017 Economic Benefits of the Forest Industry in Georgia
- Formal Speaking Presentations:
  - Overview of Georgia's Forests & Forest Industry, Georgia Environmental Health Association, Annual Meeting, Stone Mountain, 150 attendees, 6/13/2019
  - Timber Harvesting & Local Market Conditions, Landowner Meeting, Talbotten, 25 attendees, 7/23/2018
  - Timber Harvesting & Local Market Conditions, Landowner Meeting, Buena Vista, 40 attendees, 7/24/2020
  - GFC SUM Services, National Utilization & Marketing Extension Outreach Meeting, U.S. Forest Service Forest Products Lab, Madison, WI, 29 attendees, 9/23/2018
  - Current & Future Wood Markets, University of Georgia, Wheeler County Cooperative Extension Landowner Meeting: Forest Productivity & Marketing, Alamo, 60 attendees, 11/15/2018
  - GFC Services and Job Opportunities, Bryan County High School, Career Day, Pembroke, 40 attendees, 3/1/2019
  - Overview of GFC SUM Services, GFC, Ranger Cross-Training Meeting, Carnesville, 8 attendees, 3/27/2019
- Trade Show Marketing Outreach Exhibits:
  - Domestic
    - Atlanta Build Expo, Atlanta, July 11, 2018
    - International Woodworking Fair, Atlanta, 8/22/2018
    - BBI International Biomass Conference & Expo, Savannah, 3/18/2019
    - Southern Forest Products Association Expo, Atlanta, 6/26/2019

- International
  - American Hardwood Export Council/Hardwood States Export Group, Dubai Wood Show, United Arab Emirates, 3/12/2019
- Memberships/Conferences Attended:
  - Georgia Economic Developers Association – Annual Conference, Savannah, 9/19/2018
  - Southern Forest Products Association/Southern Pine Council
  - American Hardwood Export Council/Hardwood States Export Group
  - Southern Group of State Foresters, SUM Committee

## ECONOMIC DEVELOPMENT

**Goal:** Increase forest industry value, throughout the supply chain, from forest to markets.

**Driver:** Georgia’s 23.9 million acres of timberlands grow an astonishing two tons of wood per second! Furthermore, the state’s timberlands grow 48% more wood volume than is harvested each year. The result of this large positive wood growth to removals ratio, one measure of resource sustainability, is that excess wood supply is available for existing industry expansion and/or new forest industries. New markets and demand for this large excess wood supply will help forest owners keep their forests as forests and not converting them to other uses.

**Service Delivery:** The department provides forest resource analyses for existing industries seeking to expand operations, new industrial prospects, forest owners, business consultants, and state and local economic developers.

**Output:** Staff provided assistance to (26) projects, including but not limited to, analyses of timber and biomass supply and demand.

**Details of utilization, marketing, and economic development activities and accomplishments follow:**

- **Total Assists – 574;** external (non-GFC) customers – 398, 69%; internal (GFC) customers – 176, 31%
  - Monthly averages: 48, 15, 33, total, internal, external, respectively
- **Government/University Assists – 57**

AL Forestry Commission – 1	GA Emergency Mgmt. Agency – 1	U.S. Army Corps of Engineers – 1
AK State Forester – 1	GA General Assembly – 1	U.S. Forest Service – 23
Clemson Univ., Utilization + Design Institute – 1	GA Institute of Technology – 2	University of GA, Forest Business School – 1
GA Center of Innovation for Agribusiness – 1	GA Public Service Commission – 1	University of GA, Warnell School of Forestry – 3
GA Dept. of Agriculture – 1	MA Institute of Technology – 1	University of FL – 1
GA Dept. of Economic Dev. – 4	MO Dept. of Agriculture – 1	University of MA – 1
GA Dept. of Revenue – 2	SC Forestry Commission – 1	VA Dept. of Forestry – 1
GA Div. of Audits & Accounts – 1	TX A&M Forest Service – 2	VA Tech. – 4

- **Non-Governmental Organization Assists – 51**

Advance Publishing – 1	Georgia Forestry Assoc. – 8	Southern Group of State Foresters – 7
American Forest Foundation – 1	Hardwood States Export Group – 1	Southern Lumber Manufacturers Association – 1
Architect's Newspaper – 1	Kruegar Lumber Co. – 1	Southern Regional Extension Forestry – 21
Dutch Biomass Certification Foundation – 1	National Association of State Foresters – 1	Sustainable Forestry Initiative – 1
Georgia Economic Developers Association – 1	R. Howard Dobbs, Jr. Foundation – 2	Trust for Public Land – 1
Georgia Farm Bureau – 1	Savannah Tree Foundation – 1	

- **Country Assists – 7 assists; 5 countries** (*individuals, companies, ngo's, government agencies*)

Canada – 1	Ghana – 1	Sweden – 1
China – 3	Netherlands – 1	

- **State Assists– 40 assists; 22 states** (*individuals, companies, ngo's, government agencies*)

AL – 1	FL – 2	LA – 1	MS – 1	NC – 2	PA – 1	TX – 3	WI – 2
CA – 1	IL – 1	MA – 2	NV – 1	OH – 1	SC – 3	UT – 1	
DE – 1	IN – 1	MO – 2	NJ – 1	OR – 2	TN – 2	VA – 8	

- **U.S. Forest Service, Timber Products Output Primary Wood-Using Industry Survey – 121 mills surveyed**

- 2017 Bi-Annual Survey, 100% mill canvas – 49 mills surveyed; 169 total mills surveyed in this project, starting in FY2018 and concluding in FY2019; 90% mill participation rate
- 2018 Annual Survey, 40% mill canvas – 72 mills surveyed; 92% mill participation rate

- **Existing Industry Assists – 157**

- **Carbon/Ecosystem Services Assists – 2**

- **Simulator for Managed Stands (SiMs Assists – 3**

- **Forest Resource Analyses – 11**

- **Export Trade Leads – 272**

- **Trade Leads by Continent – 272**

Africa – 4	Asia – 207	Europe – 3	South America – 11
Antarctica – 0	Australia – 1	North America – 46	

- **Trade Leads by Country by Continent – 42**

Africa – 4	Asia – 21	Europe – 3	South America – 8
Antarctica – 0	Australia – 1	North America – 5	

▪ **Trade Leads by Country – 272**

Algeria – 1	Chile – 2	Gabon – 1	Mexico – 14	Romania – 1	Thailand – 1
Australia – 1	China – 67	India – 72	Oman – 1	St. Lucia – 1	Trinidad & Tobago – 3
Austria – 1	Columbia – 1	Iraq – 1	Pakistan – 20	Saudi Arabia – 3	Turkey – 1
Bahrain – 1	Costa Rica – 1	Japan – 1	Panama – 1	South Africa – 1	UAE – 21
Bangladesh – 1	Cyprus – 1	Jordan – 1	Peru – 1	Sri Lanka – 2	USA – 25
Brazil – 1	Ecuador – 1	Maldives – 1	Philippines – 3	Taiwan – 2	Venezuela – 1
Canada – 5	Egypt – 1	Malaysia – 2	Qatar – 1	Tajikistan – 1	Vietnam – 4

▪ **Trade Leads by Organization/Event – 272**

Lead Type	Total Leads	Hardwood States Export Group	SFPA Expo	Southern Pine Council	International Woodworking Fair	Atlanta Build Expo	BBI Biomass Conference & Expo
	<i>total leads / direct leads / indirect leads</i>						
Total	272 / 83 / 189	173 / 49 / 124	5 / 5 / 0	65 / 0 / 65	29 / 29 / 0	0 / 0 / 0	0 / 0 / 0
Domestic	25 / 16 / 9	4 / 0 / 4	0 / 0 / 0	5 / 0 / 5	16 / 16 / 0	0 / 0 / 0	0 / 0 / 0
Int'l	247 / 67 / 180	169 / 49 / 120	5 / 5 / 0	60 / 0 / 60	13 / 13 / 0	0 / 0 / 0	0 / 0 / 0

▪ **Trade Leads by Southern Forest Products Association Expo**

Trade Show	Trade Leads by Country		Total Leads / Domestic Leads / Int'l Leads
SFPA Expo Atlanta, GA June 2019	Australia – 1 Canada – 1 China – 1	India – 1 Romania – 1	5 / 0 / 5
Total			5 / 0 / 5

▪ **Trade Leads by International Woodworking Fair**

Trade Show	Trade Leads by State				Total Leads / Domestic Leads / Int'l Leads
IWF Atlanta, GA August 2018	AL – 1	GA – 1	NJ -1	SC – 1	29 / 16 / 13
	CA – 1	IL – 1	NC – 1	TN – 1	
	DE – 1	IN – 1	NV – 1	TX – 1	
	FL – 1	MS – 1	OH – 1	UT – 1	
	Trade Leads by Country				
	Brazil – 1 Canada – 1 China – 1 Columbia – 1 Ecuador – 1	Japan – 1 Mexico – 1 Pakistan – 1 St. Lucia – 1 Thailand – 1	UAE – 1 Venezuela – 1 Vietnam – 1		
Total					29 / 16 / 13

▪ **Trade Leads by Southern Pine Council**

<b>Date</b>	<b>Trade Leads by Country</b>		<b>Trade Leads by State</b>	<b>Total Leads / Domestic Leads / Int'l Leads</b>
July 2018	China – 4 Maldives – 1	Panama – 1 Sri Lanka – 1	None	7 / 0 / 7
August 2018	India – 2 Mexico – 2	Trinidad & Tobago – 1	Ohio – 1	6 / 1 / 5
October 2018	Algeria – 1 Bangladesh – 1 Costa Rica – 1 Egypt – 1 India – 6 Malaysia – 1 Mexico – 1	Pakistan – 2 Philippines – 1 South Africa – 1 Trinidad & Tobago – 1 UAE – 2 Vietnam – 1	California – 1 Georgia – 1 North Carolina – 1	23 / 3 / 20
February 2019	India – 5 Pakistan – 4	Sri Lanka – 1	South Carolina – 1	11 / 1 / 10
April 2019	Canada – 1 India – 2 Mexico – 1	Pakistan – 2 Trinidad & Tobago – 1	None	7 / 0 / 7
June 2019	Chile – 1 China – 1 India – 6	Mexico – 2 Peru – 1	None	11 / 0 / 11
Total	Algeria – 1 Bangladesh – 1 Canada – 1 Chile – 1 China – 5 Costa Rica – 1 Egypt – 1 India – 21 Malaysia – 1	Maldives – 1 Mexico – 6 Pakistan – 8 Panama – 1 Peru – 1 Philippines – 1 South Africa – 1 Sri Lanka – 2 Trinidad & Tobago – 3 UAE – 2 Vietnam – 1	California – 1 Georgia – 1 North Carolina – 1 Ohio – 1 South Carolina – 1	65 / 5 / 60



▪ **Trade Leads by Hardwood States Export Group – 173**

Trade Show	Trade Leads by Country			Total Leads / Domestic Leads / Int'l Leads
Sylva Wood, Shanghai, China June 2018	China – 56 Malaysia – 1	Taiwan – 2 Philippines – 1	USA – 2 Vietnam – 1	63 / 2 / 61
Tecno Mueble, Guadalajara, Mexico September 2018	Canada – 1 Chile – 1	China – 1 Mexico – 7	USA – 2	12 / 2 / 10
Dubai Wood Show Dubai, UAE March 2019	Austria – 1 Bahrain – 1 Canada – 1 China – 3 Cyprus – 1 Gabon – 1	India – 1 Iraq – 1 Jordan – 1 Oman – 1 Pakistan – 11 Philippines – 1	Qatar – 1 Saudi Arabia – 3 Tajikistan – 1 Turkey – 1 UAE – 18 Vietnam – 1	49 / 0 / 49
Delhi Wood Greater Noida, India April 2019	India - 49			49 / 0 / 49
Total	Austria – 1 Bahrain – 1 Canada – 2 Chile – 1 China – 60 Cyprus – 1 Gabon – 1 India – 50	Iraq – 1 Jordan – 1 Malaysia – 1 Mexico – 7 Oman – 1 Pakistan – 11 Philippines – 2 Qatar – 1	Saudi Arabia – 3 Taiwan – 2 Tajikistan – 1 Turkey – 1 UAE – 18 USA – 4 Vietnam – 2	173 / 4 / 169

- **Bioenergy Project Assists – 16**
  - **Biochemicals/bioelectricity/biomaterials/liquid biofuels – 6**
  - **Wood pellets – 10**
- **Meetings/Training/Continuing Education – 120**
- **Consulting Forester/Timber Buyers/Landowners Assists – 66**
- **Miscellaneous Activities**
  - One staff volunteers on the GFC Area 3 Safety Committee
  - One staff obtained Intl. Society of Arboriculture (ISA) certified arborist credentials
  - Various staff made visits to six states: LA, MD, NC, OR, TN, WI and one country: UAE

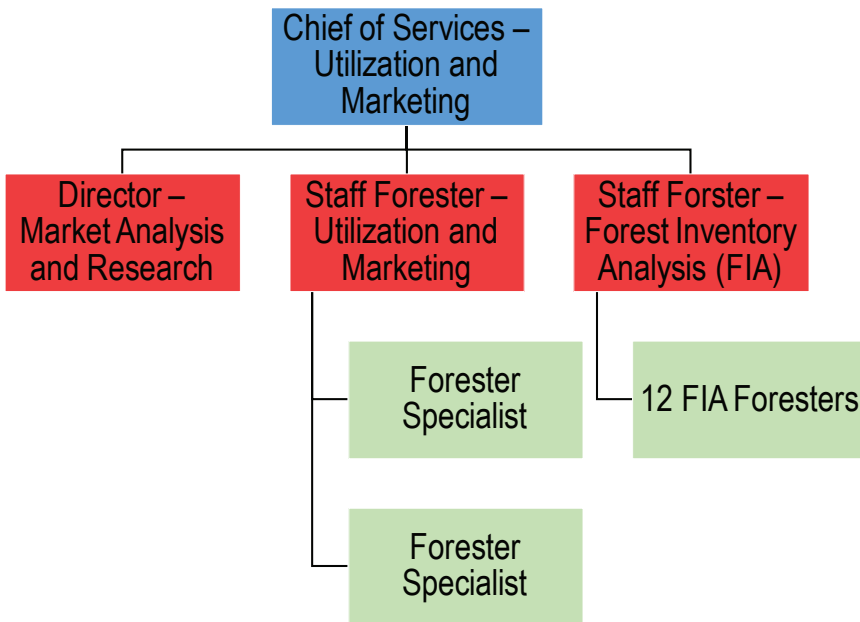
**References**

<sup>1</sup> Since the 1930's, the U.S. Forest Service (USFS), Forest Inventory & Analysis (FIA) program has conducted inventories and assessed the status and change in forest resources. Today FIA is the chief provider of forest statistics for broad geographic scales. GFC's FIA program began in August 1997; sample plot measurements began in 1998. The USFS provides funding for a 7-year inventory cycle; GFC provides state funding to lower the inventory cycle to 5-years. Sample plots were randomly selected at a density of about one plot per 6,000 acres. Approximately 20% of the sample plots are measured each year and all sample plots are measured within a 5-year period. Data collected includes species composition and diversity, live wood and biomass volumes, wood growth and removals, forest health, insect and disease impact, past natural and man-caused disturbances, land use changes (i.e. conversion of land areas from forest to non-forest and vice versa), and many other types of data.

Collected data is electronically compiled and forwarded to the USFS FIA program office in Knoxville, TN. Approximately 20% of the sample plots are collected each year and data compilation performed each year on the last five years of measurements across all plots. This provides a 5-year rolling average for data parameters. The data is compiled into county, regional and state summaries and as well as made available on the USFS FIA online databases at [fia.fs.fed.us/tools-data/](http://fia.fs.fed.us/tools-data/).

Forest resource data are used to monitor tree growth and harvests, but also tree species and land use patterns, forested wildlife habitat, mortality and other forest health attributes, regional biological processes, timber and nontimber forest products, including sequestered carbon, and associated human activities.

<sup>2</sup> SUM organization chart.





# Reforestation

The Reforestation Department had a very challenging year for seedling sales, and seed collections. We experienced a devastating hurricane in the Fall, followed by an unprecedented rainy and wet planting season. The genetically improved Loblolly and Slash cone crop was also extremely low, but nevertheless, we persevered. There were many positives, although, this past fiscal year, which are highlighted by program area in the next sections of this report.

## TREE IMPROVEMENT

- There were no cross pollinations done this past Spring FY19, as the 4th cycle breeding for Loblolly is finished, and there were no 4th cycle Slash Pine crosses to make due to very little flowering.
- There were three loblolly progeny tests measured, with results uploaded into the NCSU Tree Improvement Cooperative's data base. There were also three slash progeny tests measured and sent to the CFGRP for assessment.
- Three six rep progeny tests were installed this fiscal year.
- Maintenance on these sites were performed during the growing season.
- The annual tree improvement contact meeting was attended by Jeff Fields and Anita Johnson.
- The GFC continues to play a vital role in the development of pine genotypes, not just for Georgia landowners, but landowners across the Southeast. This is due to a continuing agreement between the GFC and the NCSU Tree Improvement Cooperative at the GFC's Arrowhead Seed Orchard.
- This program continues to be a success and an asset to the GFC and landowners across the Southeast. The latest figures that were supported by the NCSU co-op continue to show the present value of the Arrowhead Breeding Center to be \$483,000,000 south-wide and \$113,000,000 in Georgia.

## SEED ORCHARD

The GFC Seed Orchard program continues to be a successfully run segment of the Reforestation Department. With superior pine genotypes being supplied by the Tree Improvement Program and continually going into our orchard program, the landowners of Georgia benefit greatly.

The following accomplishments in seed collection were made by our professionals, not only in the Seed Orchard program, but also by GFC professionals in the field who are a very important part of our efforts.

The following numbers of bushels of cones were collected from GFC orchards and were cleaned in our seed extractory to supply the nursery program with genetically elite seed for many more years.

<b>Species</b>	<b>Bushels Collected</b>	<b>LBS</b>
Loblolly Ga. Giants	62.00	36.00
Loblolly High Volume	0	0
Loblolly P-3	189.00	237.00
Loblolly P-3 Select	94.00	83.00
Loblolly RR3	255.00	310.00
Elite Straight Loblolly	47.00	46.00
Slash Premium	155.00	115.00
Slash Select Premium	275.00	209.00
Slash Super Select	55.00	39.00

In addition to these elite pine species that were collected and processed, there were also 13,073.25 pounds and/or gallons of hardwood seeds collected, processed, and planted!

We also were able to sell over \$150,000 worth of genetically improved pine seed to private nurseries, furthering the reach of the GFC's superior seed and genetic resources.

## **NURSERY**

The nursery continues to be the financial engine that drives the Tree Improvement and Orchard programs. For Fiscal Year 2019, there were 9,653,088 seedlings sold. This was up more than 1.6 million from the previous year. The nursery filled 3,503 orders for the year, reforesting over 16,000 acres!

This season proved to be very challenging for our department, along with all other private and industry nursery programs. A devastating hurricane in Southwest Georgia, along with an extremely wet planting season put a huge damper on seedling sales. An extremely hot, dry Spring and summer has also made survival issues for all seedling vendors appear.



# Administration

INCOME AND EXPENDITURES			
	FY2017	FY2018	FY2019
<b>FUNDING SOURCE</b>			
FEDERAL FUNDS	6,466,832	17,143,762	14,893,632
FEDERAL STIMULUS			
OTHER FUNDS	12,329,118	15,663,630	10,738,020
STATE GENERAL FUNDS	46,280,750	40,456,415	44,725,280
GOVERNOR'S EMERGENCY FUNDS			
FEMA-FIRE MANAGEMENT GRANT			
PRIOR YEAR INVENTORY			
<b>TOTAL FUNDS</b>	<b>65,076,700</b>	<b>73,263,807</b>	<b>70,356,932</b>
<b>EXPENDITURES BY OBJECT CLASS</b>			
TOTAL PERSONAL SERVICES	37,318,026	39,879,668	38,758,205
TOTAL REGULAR OPERATING EXPENSES	9,852,967	9,611,140	11,086,135
TRAVEL	388,680	523,317	
MOTOR VEHICLE EQUIPMENT PURCHASES	3,394,632	3,903,877	3,942,350
EQUIPMENT PURCHASES	9,569,841	501,605	3,483,776
COMPUTER CHARGES	2,037,270	1,804,772	2,740,123
REAL ESTATE RENTALS	29,556	43,288	44,500
TELECOMMUNICATIONS	741,121	821,813	983,906
CAPITAL OUTLAY	4,000	252,221	1,419,221
PER DIEM & FEES			
CONTRACTS	1,664,773	15,831,750	8,163,487
WARE COUNTY TAX - RD. MAINT.	60,000	60,000	60,000
WARE COUNTY TAX - S. FOREST			
<b>TOTAL EXPENDITURES</b>	<b>65,060,866</b>	<b>73,233,452</b>	<b>70,681,702</b>
<b>EXPENDITURES BY PROGRAM</b>			
REFORESTATION	1,217,068	1,230,652	1,230,811
PROTECTION	52,039,687	53,769,530	50,204,515
MANAGEMENT	7,544,616	13,549,692	14,078,173
GENERAL ADMINISTRATION AND SUPPORT	4,259,495	4,683,578	5,168,203
<b>BONDS</b>			
EQUIPMENT BONDS	0.00	0.00	0.00
CAPITAL OUTLAY BONDS	312,550	471,958	580,604
<b>NUMBER OF EMPLOYEES</b>	<b>554</b>	<b>551</b>	<b>548</b>

GEORGIA FORESTRY  
COMMISSION



5645 Riggins Mill Road  
Dry Branch, GA 31020  
1-800-GA TREES  
GaTrees.org

**GFC VISION:**

Healthy, sustainable forests providing clean air, clean water and abundant products for future generations.

*An Equal Opportunity Employer and Service Provider*