



2015 Annual Report



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Table of Contents

Forest Management.....	1
Forest Protection.....	6
Communications.....	12
Forest Products Utilization, Marketing & Development.....	13
Reforestation.....	15
Administration.....	17



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, monitor and suppress forest insect and disease outbreaks, and, by authority granted by the Georgia Environmental Protection Division, 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. Land management assistance is also provided to other state agencies that own forest lands, including: 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 and meeting the owner-agency's objectives, to conducting a variety of silvicultural treatments (timber sales, site preparation, tree planting, prescribed burning, and planning and implementing road improvements).

GFC foresters and technicians handled 9,459 field visits with landowners involving 532,321 acres. Almost half of these visits were cost share visits (4,494), with the remainder involving technical advice to landowners about forest health, water quality, forest stewardship

and invasive plants. Georgia's forests remain healthy overall, and 91% are 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. GFC partners with the Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), U. S. Forest Service (USFS), U. S. Fish & Wildlife Service (USFWS) and the Georgia Department of Natural Resources (DNR) to deliver these programs. 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. GFC efforts in FY 2015 resulted in a total of \$8.4 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 2,024 CRP cases covering 65,379 acres. As a result of this work, approximately \$1 million went to GA landowners to help fund forest management practices. Also, these participants will receive rental payments for a total \$1.5 million annually for the next 10-15 years depending on the contract length. The total dollar impact for the year is \$2.5 million.

Emergency Forest Restoration Program (EFRP)

- Recent tornadoes & ice storms resulted in the funding of EFRP. GFC foresters assisted FSA with the planning of 80 contracts covering 3,623 as a result of the ice storm in early 2014. GFC certified the performance of 140 practices, covering 6295 acres, resulting in cost share payments to landowners totaling \$1,190,855.

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 516 practices covering 52,903 acres. The performance of 699 practices was also certified covering 60,797 acres. As a result of these services landowners received approximately \$3.5 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 141 practice performance inspections completed covering 9,128 acres. As a result of these services landowners received approximately \$442,323 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 473 practices covering 32,619 acres. There were 392 practice performance certifications completed covering 34,061 acres. As a result of these services landowners received \$627,547 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, multiflora rose and olive spp.

Assistance was provided on 34 initial prescription plans covering 1,007 acres. GFC personnel went on to certify the performance of 65 plans covering 2,404 acres. As a result of these services, landowners received \$102,000 in cost share payments

Partners for Fish & Wildlife Program

– The GFC assists the USFWS with the technical side of this program. The focus of the program is the restoration of longleaf pine ecosystems, riparian/stream habitat & endangered species habitat.

Assistance was provided on two initial prescription plans covering 89 acres. GFC personnel went on to certify the performance of three plans covering 189 acres. As a result of these services landowners received approximately \$20,025 in cost share payments.

Table 1: Incentive payments to GA landowners related to GFC services in FY 2015

Program	2015
CRP	\$ 2,525,915
EFRP	\$ 1,190,855
EQIP	\$ 3,494,862
WHIP	\$ 442,323
SPB	\$ 627,547
Invasive Plant	\$ 102,000
Partners	\$ 20,025
Totals	\$ 8,403,527

WATER QUALITY PROGRAM

For Fiscal Year 2015 GFC has completed the items that follow. Funded through the EPA Section 319 grant program, the GFC Water Quality program is staffed with one state coordinator, four Regional Specialist Positions, and seven district/area water quality foresters.

During FY15, GFC water quality foresters provided 95 BMP talks to 2395 people. In addition, GFC water quality foresters put on 32 BMP field demonstrations

with 511 in attendance. These water quality foresters investigated 44 complaints requiring 108 site visits to mediate. GFC completed a total of 145 BMP Assurance Exams on harvests and other management activities. Water quality/BMP advice was given during the course of 223 general advice site visits for landowners on a total of 50618 acres. GFC water quality foresters completed 152 state level firebreak BMP inspections on GFC firebreaks. GFC water quality foresters started field work on the 10th Statewide Silvicultural BMP Survey during FY15, completing 117 of the targeted total of 210 to 250 randomly selected sites to be finished by the end of calendar year 2015. With funding provided by EPD, the GFC water quality foresters have started a new portable bridge cost share program, and have completed 3 bridge inspections to this point.

The GFC continues to be involved in the Governors Comprehensive Water Plan Study Committee. As required by state law, the Regional Councils have continued to meet periodically with GFC foresters attending as needed.

URBAN AND COMMUNITY FORESTRY

In FY15, Georgia had 135 Tree City USA communities, 14 Tree Campus USA schools and one Tree Line USA utility.

Funds from the Urban & Community Forestry Assistance program were used to contract with the Georgia Urban Forest Council, which utilized circuit-rider arborists to make personal visits and help communities develop community forestry programs. Services provided included: revising tree ordinances, conducting hazardous tree assessments, preparing storm mitigation plans, conducting tree inventories, training municipal tree care workers and assisting with Tree City USA certifications. Additional services provided by the circuit riders included conducting four Certified Arborist Review classes. These classes were held over two days, and trained 112 tree care workers and potential arborists. As a result of this training, approximately 60 people passed the exam and became ISA Certified Arborists. U&CF funding was also used to complete two Making the Shade projects, which planted 33 trees around two schools to shade playground equipment and provide a healthier play environment. Funding was also used to provide 5,000 seedlings to Keep Georgia Beautiful

affiliates 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. It is designed to communicate more effectively with homeowners across the state and to provide citizens with timely, unbiased information from a GFC-certified arborist. GFC received funding to help create and expand the American Grove, www.AmericanGrove.org, a social networking website that reaches consumers with tree benefits messages and encourages them to take action and plant trees.

The Okefenokee Swamp and surrounding coastal plain region is a biologically diverse area that includes working forests and farms, pristine estuaries and coastal communities. Rapid growth, development, and conversion of these natural areas to other uses threaten this unique region. With Redesign funding, a web based Green Infrastructure Mapping ToolKit was developed to complement the Green Infrastructure (GI) Management System Guidebook. This effort to identify, link and collectively manage these diverse ecosystems was developed in partnership with the Coastal Regional Commission. Workshops were held with city planners, government entities and natural resource managers to promote and demonstrate the use of the Guidebook and Mapping ToolKit.

In September 2014, a mock deployment of the Urban Forest Strike team was organized by SCFP. The deployment was held in Savannah in conjunction with Chatham County EMA and included participants from eight other states. This training improved the skills of the strike team members in assisting storm damaged communities with hazardous tree assessments. It also provided one of the first opportunities for the strike team to interface with Chatham County's EMA, so that communication and implementation will be much improved with any future assessments in Chatham County.

SCFP staff members also worked with staff from GFC's Utilization program to conduct a survey and workshops to study and discuss how urban wood waste is being utilized by municipal and private tree care workers in Georgia. Also, in conjunction with the Forest Health program, SCFP assisted with a workshop for metro Atlanta tree care workers to better inform them about the increasing quarantine and the

accompanying regulations due to the Emerald Ash Borer infestation.

GEORGIA'S FOREST INVENTORY/ FIA

Federal Allocation for FY 2015: \$467,307

During Fiscal Year 2015, the Forest Inventory and Analysis Program (FIA) in Georgia collected data on 996 plots. These plots were collected by six certified full time crews strategically located across the state. Each crew is ideally made up of two FIA Foresters.

Of the 996 FIA plots, 100 were P3 or Forest Health Monitoring Plots and 84 were new install USFS Intensified Plots, which fall on the most rugged and inaccessible land in the state. P3 and National Forest Intensification plots take approximately twice as long to complete data collection than a regular plot, since there is more crown/tree health information and "Downed Woody Material" data to collect than on a regular plot and the P3 plots are widely dispersed across the state so driving time is increased.

A certain percentage of FIA plots completed are checked by USFS personnel for accuracy of data collection. A percentage score is given to the person responsible for the data collected on that plot. Georgia had an excellent check score average for FY 2014 of 96.5% for all of the plots that were checked. A minimum average of 87% is required for a FIA cruiser to remain certified. If their average drops below 87% they will be decertified and will be unable to collect plots in their name (assist only). No Georgia cruiser has ever been decertified.

FIA data collection is broken up into cycles and subcycles. A cycle includes data collection on all of the FIA plots in Georgia and should take approximately five years. Each cycle is broken up into 5 subcycles. Each subcycle consists of approximately 20% of the total number of plots. Each subcycle should take about 1 year to complete with full Federal funding and fully staffed crews.

- Data collection of Cycle 10, Subcycle 5 (Inventory Year 2014) was mostly completed by end of December 2014 (with a few plots we had to wait to collect). All 1195 plots in Inventory Year 2014 have been completed and transmitted. New plot materials were available

for us to begin the next Subcycle immediately. All Felled Tree plots in Cycle 10 have been completed and transmitted.

- Georgia began data collection of Cycle 11, Subcycle 1 (Inventory Year 2015) in January 2015. As of September 28, 2015 we had completed 504 of the 1164 plots in the Inventory Year 2015 plot list. All plots should be completed by early 2016.

The FIA Federal Grant decreased to \$467,307 this Fiscal Year, down again from last years reduced funding. Funding from the USFS is now based on a 10 year cycle instead of being based on a 7 year cycle. Georgia has chosen to "buy down" to a 5 year cycle (or close to it) since the data is crucial to our interests. The FIA Foresters in Georgia are working on other projects to make up for the loss of revenue.

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 495 management cases involving 30,296 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; 253 plans were presented to landowners with a total acreage of 65,140 acres. Statewide, forest health training was provided to foresters, resource managers, loggers, public works departments (state and county), nursery staff, regulatory agencies, and landowners on 131 occasions with 47, 976 attendees 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, Rhizoctonia seedling blight, 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 five radio interviews with Georgia Public Radio (GPR)

and National Public Radio (NPR). Nine television interviews were also conducted in the Albany and Atlanta areas in 2014 & 2015.

STATE LANDS FOREST MANAGEMENT

Georgia Forestry Commission's State Lands Forest Management program is in place to assist our sister agencies with management of their forest lands. Over the past six years our program responsibilities have grown to the extent that we now have three full time employees, a staff forester, a specialist forester and a state lands technician. State of Georgia owned lands that we help manage reach to all four corners of the state and everywhere in between. Sister agencies that we have entered into interagency governmental agreements with and are receiving our management assistance on a regular basis include the Department of Natural Resources, the UGA College of Agricultural and Environmental Sciences and the Department of Transportation. Other agencies receive assistance when requested.

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 2015 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. Twenty-four timber sales occurred during FY2015. 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) forest lands are located on their experiment stations. Fiscal year 2015 involved all aspects of timber sale preparation, including marking and cruising timber, marking sale area and streamside management zone boundaries, gps work, BMP inspections, contract compliance inspections, preparing timber sale bid packet information, advertising timber sales, and other

administrative duties. Three timber sales occurred during FY2015. Prescribed burns and reforestation planning occurred, as well.

Georgia Department of Transportation

Mitigation properties are where the forest lands owned by the Department of Transportation (GDOT) are located which GFC helps manage. As with the UGA CAES, GFC handled all aspects of GDOT timber sale administration during fiscal year 2015. The Long County timber harvest continued during FY2015 and is expected to be completed in early FY2016. Reforestation of longleaf pine occurred on 185 acres of the Long County harvest area with roughly 70% survival; 250 acres are planned for reforestation during FY2016. More work on one of the main creek crossings is scheduled for early FY2016. Two timber harvests are scheduled for FY2016 with more possible. Ten year management plans were completed for two properties. Data gathering for and writing management plans will continue for FY2016 with a goal of completing four.

Timber Transaction Complaints

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

Looking forward to FY2016

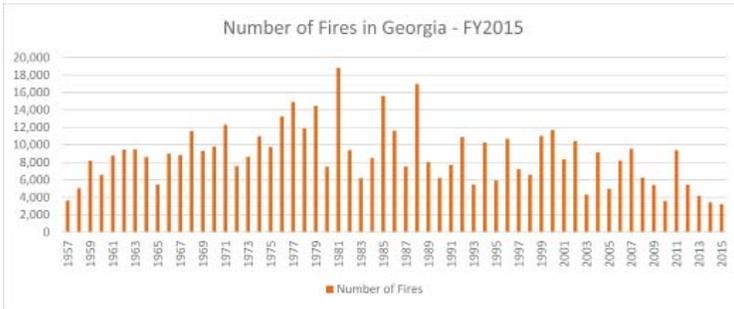
FY2016 will be busy for GFC's State Lands Forest Management, as we continue to assist our sister agencies in the management of State of Georgia forest lands and assisting our investigators by performing stump cruises. We hope to add CDI Coordinators to some districts to assist with the work.



Forest Protection

WILDFIRE ACTIVITY

Wildfire occurrence for fiscal year 2015 (FY15) was the lowest on record since 1957 (58 years) as well as the 3rd lowest when considering total acres burned. We experienced 3,227 wildfires in FY15 that burned 14,510 acres in Georgia. The average size of each wildfire was 4.5 acres. We recognize that the increased amount of rainfall contributed to this reduction however we contribute part of the reduction to our increased fire prevention efforts, LE enforcement and public education efforts throughout the state but most especially in areas where historically we have experienced high wildfire occurrence.



COUNTY AND DISTRICT OFFICE OPERATIONS

The GFC provided 2,936 burn assists for landowners in Georgia totaling about 201,036 acres or about 14% of the total acres prescribed burned which includes assistance to landowners for agriculture, silviculture and land clearing types of burns. When compared to the five year average the numbers of burn assist were above average with the total acres burned increasing approximately 23,000 acres above a five year average.

Year	2011	2012	2013	2014	2015
Total Burn Assist Number	1,851	1,666	1,954	2,002	2,936
Total Burn Assist Acre	176,409	146,572	195,751	169,939	201,036

Pre-suppression plowing and harrowing services in FY-15 slightly increased in both number of landowners serviced as well as the total hours/miles of firebreaks installed when compared to the previous fiscal year. In FY-15, the GFC performed a total of 5,057 plowing/harrowing services for landowners in the state for a total of 15,013 hours of firebreaks installed by GFC professionals using tractor/plow/harrow equipment.

Fire Breaks Installed					
Year	2011	2012	2013	2014	2015
Total Plowing Serviced	3,285	3,172	2,979	2,353	2,574
Total Plowing Hours	8,507	8,761	8,592	7,576	8,531
Total Harrowing Serviced	3,365	3,090	3,148	2,633	2,483
Total Harrowing Hours	7,983	7,383	7,340	6,615	6,482

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 County.

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. This allowed us to take advantage of a captive audience to provide wildfire prevention messages.

The GFC continued to provide fire prevention programs that included appearances by Smokey Bear to promote fire prevention in Georgia. In FY15, there were over 998 fire prevention programs conducted by GFC professionals who invested 5,054 hours and reached over a half-million citizens in Georgia.

Fire Prevention Programs conducted:	Total Audience size for all Programs	GFC Hours Invested
998	506,987	5,054

COMMUNITY WILDFIRE PROTECTION PLANS (CWPP)

As of June 30, 2015, the program had completed 147 of Georgia's 159 county plans. Through a strong partnership with the Georgia Emergency Management 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.

Based on accomplishments during the previous year, a focus was implemented in FY15 to begin to update County wide CWPP's that are more than five years old. Forest Protection staff members began to examine CWPP's completed in 2010 and make contact with local county officials to start the updating processes. In FY15, 5 CWPP's updates were initiated.

FIREWISE & FIRE ADAPTED COMMUNITIES PROGRAMS

The Firewise Communities/USA Recognition Program is a process that empowers neighbors to work together in reducing their wildfire risk. Georgia's program has grown extensively this year to include 14 new communities. The GFC initiated a contract with Georgia's Rural Conservation and Development Councils (RC&D) in an effort to engage more local participation. Georgia currently has 88 Firewise, USA communities as of June, 2015.

In addition to the establishment of these new Firewise Communities, the Fire Adapted Communities concept expanded in Georgia in FY15. A fire adapted community incorporates people, buildings, businesses, infrastructure, cultural resources, and natural areas to proactively 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.

Georgia's Towns County continues to serve as one of nine model and pilot communities nationwide. With the help of the Georgia Forestry Commission and the US Forest Service, this new concept model has achieved great success in becoming "Fire Adapted."

MECHANICAL FUEL TREATMENT PROGRAM

GFC's mechanical fuel treatment offers safe and effective control of understory vegetation that can make wildfire mitigation and control a struggle. These powerful tools churn through places unsuited for traditional methods such as prescribed burning and chemical treatment. Mechanical fuel treatment is ideal for areas in the wildland-urban interface, land near gas lines, power lines, rights of way and other smoke-sensitive areas.

Six District CDI Coordinators were created throughout the state of help manage and operate the new equipment. These coordinators, along with county rangers across the state, have invested 738 hours of mastication services assisting 138 landowners in Georgia.

TYPE II INCIDENT MANAGEMENT TEAM

More than 100 professionals participate in and are on the roster for GFC's Incident Management Team. Many of the team's members are within the trainee and apprentice phases of qualification development. This is an important aspect of IMT management to ensure team sustainability and succession training for the future. Thirty-two GFC Type 2 IMT members participated in 10 separate out of state wildfire assignments to gain experience, maintain NWCG qualifications, and/or function as trainees

The GFC IMT continues to hold national status. However, no team assignments were made in FY15 on a state or federal level. Many team members did participate within the Georgia Emergency Management Agency's hurricane exercise this year in various support functions. Team members also participated as lead and unit level instructors to assist the GA Department of Agriculture to prepare personnel for Avian Influenza outbreak response in Georgia. One

statewide IMT meeting was held in FY15, during which team members evaluated deployment procedures, training needs and IMT operational procedures.

LAW ENFORCEMENT

GFC Law Enforcement continues to maintain a southern area arson task force. In August 2014, more than 30 forestry investigators from the southern states met in Georgia for a second week-long training seminar, and continued to work on an organizational and response plans.

From July 1, 2014 through June 30, 2015, GFC Investigators opened a total of 183 cases. There were 67 fire investigations and 43 arson investigations, which resulted in 19 criminal charges. During the same period, GFC investigators received 116 timber security complaints which lead to five charges being filed, along with almost \$46,000 recovered for landowners in Georgia.

REGIONAL RESPONSE CENTERS

During FY2015, the Regional Response Centers issued 22,151 burning permits statewide; accounting for 28.8% of the total burning permits issued. This is an approximate 2% decrease over last year.

The Response Centers continue to use Spider-Tracks and the GFC Flight Following and Tracking system. Also, the Response Centers began working with pilot projects to determine the applicability of a real time resource tracking process within the GFC. A review of two computer aided dispatch (CAD) systems were determined to be un-useful or to complex/cumbersome to be valid within the GFC and its operations. Software developed by TECHNOSYLVA was demonstrated and had application as a wildland fire dispatching tool. A pilot project was launched to begin to explore opportunities to merge the FiResponse software into GFC dispatch functions.

The Response Centers dispatched resources and personnel to 5,656 calls during FY2015 which resulted in 3,227 wildfires.

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 goal of being a safer, more efficient, and more effective aviation unit. The past year provided the opportunity to refine our processes, improve our systems, and train our personnel.

Air Operations, in coordination with the Response Centers, developed a new Emergency Response Plan (ERP) as a supplement to our flight operations manual. Quarterly and annual training programs were continued and improved upon. The unit participated in more than 900 hours of training this past year. Some examples of training include GBWF wildland firefighter, RT-130, interagency aviation courses (IAT), certified flight instructor refresher courses, and many others.

Air Operations strives to train and qualify cooperators within the state that might participate with us on an incident. We continued to cooperate with the Department of Natural Resources by conducting fixed wing night flights in support of their Law Enforcement Division, taught basic fire behavior and firefighting tactics to the Army National Guard, and participated in the Hurrex hurricane preparedness exercise. We also participated in ALEA (Airborne Law Enforcement Association) training, hosted a GPSA (Georgia Public Safety Aviators) training event, maintained contact with other state/local agencies, and started preparations for this year's training event.

In FY15, improvements were made within the GFC flight following program that have resulted in improved dispatching capabilities, reduction in redundancies, increased safety, and reduced radio traffic.

Air Operations pilots flew 3,947.5 hours on patrol flights, reported 407 wildfires and provided support on 329 wildfires, reported 1,343 controlled burns and checked over 19,567 controlled burns. The Air Operations Maintenance Team performed 92 aircraft maintenance and repair projects.

GEOGRAPHIC INFORMATION SYSTEM (GIS)

GIS is a section of the Forest Protection Department dedicated to geospatial support and analysis using GIS technology for planning, mitigation, preparedness, incident response, and managing of fire programs. This program focuses on internal and external customers, and includes GFC personnel using GIS-produced maps and analysis to protect the life, property, and

natural resources of Georgia by responding to wildfires and implementing prevention programs.

Preparedness, planning, incident response, and mitigation are all important functions of managing wildfire programs. GIS can provide fast, efficient analysis and data dissemination. This allows the GFC to develop fire plans, enhance situational awareness, develop mitigation strategies, optimize resource placement and allocation, and support incident management with mapping and analysis.

Georgia's growing population increases the challenge of firefighting in the urban interface. Improved GIS Technology could reduce the number of acres burned while allowing for better coordination to aid in protecting life and property within the urban interface.

GIS continues to support the Community Protection Grant to meet US Forest Service documentation requirements. The Community Protection Grant provides funding for hazard-reduction prescribed burning or mechanical fuel treatment within a 10 mile buffer of US Forest Service land. The US Forest Service requires geospatial data for each treatment. The GIS staff compiles a boundary shapefile for each prescribed burn or mechanical fuel treatment for the fiscal year. In FY15, 164 GIS shapefiles were submitted to the USFS to meet the documentation requirement.

In FY15, GIS personnel developed smoke plotting tools compatible with Google Maps to assist prescribed burners determining impacts of smoke from their prescribed fires. In addition, this tool assists GFC personnel making decisions about issuing burning permits to determine down-wind smoke-sensitive areas that may be impacted by smoke.

GIS also assisted with the maintenance needs of the Southern Wildfire Risk Assessment. SouthWRAP is the primary mechanism for the Southern Group of State Foresters (SGSF) to make wildfire risk information available and to create awareness about wildfire issues. Through SouthWRAP analyses, community interaction and education, mitigation treatments that might be necessary to reduce risk from wildfires are more easily accessible. In FY15, GFC's GIS personnel began to update and improve the Communities at Risk layer of SouthWrap, which identifies communities at low, moderate and high risk from wildfires.

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 FY15 there 760,318 burning permits issued for 1,424,481 acres of prescribed burning in Georgia reported within our burning permit information system. Silviculture burning accounted for the majority of those acres at about 1,063,562 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 140 students attending. To date, there are 3,043 Certified Burners in Georgia.

The Georgia Prescribed Fire Council held its annual meeting in September 2014 at the UGA Conference Center in Tifton this year, with over 200 burn practitioners in attendance. Visit the Councils website at 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

GFC Fire Weather Website averaged 68,500 visitors and 353,000 hits per month in FY-15

Georgia uses a sophisticated National Fire Danger Rating System in which weather data is measured 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.

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 are 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 less than 10,000 in 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 supports 397 fire departments in 120 counties in Georgia. More than 1,753 pieces of fire suppression equipment has been provided to 117 counties. This equipment is in the form of vehicles, fire pumps, water tanks and 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 in the suppression of 3,533 wildland fires in FY15. 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 emergency responses. In many locations and communities throughout Georgia, the vehicles and equipment provided by the GFC is the only emergency response apparatus available to citizens.

The GFC works closely with the Rural Fire Defense Council in Georgia to ensure 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 FY15.

RFD Fiscal Year 2015 Summary		
Cooperating Fire Departments	Statewide Report	
Fiscal Year	2015	
Type Fire	Number	Acres
Wildland (or the old Forest Land)	3,533	9,386.31
Total Number GFC Pieces Of Equipment (State and Federal Excess)		1,715
Number Counties Utilizing GFC RFD Equipment		122
Number Departments Utilizing GFC RFD Equipment		401
Total Number Of RFD Stations		956

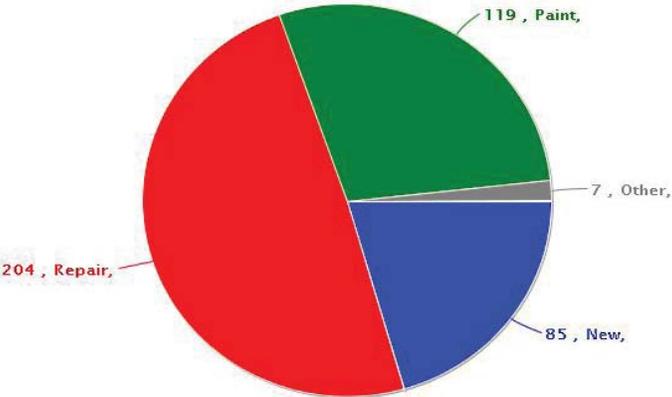
EQUIPMENT AND RFD FABRICATION SHOP

The GFC's fabrication shop continues to provide construction, repairs and oversight of GFC's and county fire departments' vehicles and equipment. The majority of the activities carried out in the fabrication shop are performed on fire suppression equipment 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 requiring 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. In FY15, the Fabrication shop performed a total of 4,115 work projects.

Fabrication Shop Production Table by Classification for FY 2015					
Equipment Classification	New	Repair	Paint	Other	Total Number of Projects
Electrical	5	1	2	0	8
Fire Knocker	1	2	10	2	15
Fire Knocker (Super)	1	0	6	0	7
Harrow	0	30	0	1	31
Motor Vehicle	0	1	0	0	1
Others	49	54	80	1	184
Plow	0	28	2	0	30
Tank	6	1	0	0	7
Tractor	4	31	6	0	41
Trailer	0	19	6	0	25
Truck Bed	11	5	7	1	24
Type 6 Engine	0	7	0	1	8
Type 7 Engine	8	14	0	1	23
V-Blade	0	11	0	0	11
Total	85	204	119	7	415

Fabrication Shop Production Chart
Major Project Area for FY-2015

Percentage By Work



Production



Communications

Communications staff for fiscal year 2015 consisted of a director, an administrative assistant, a conservation education coordinator, a communications specialist and a contracted writer.

Internal communications within the agency continues to improve. GFC Headline News continues to be well-received. Based on feedback from an internal communications survey, the internal newsletter was modified slightly to make it more relevant for employees.

During the year, ten 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 Today*, *Out of the Woods*, and *Georgia Trend*, among others. Many radio and television appearances were made, with topics ranging from fire prevention and fire activity to Arbor Day. Our external e-newsletter, the GFC eUpdate, continues to expand to new audiences and garner the attention of new subscribers.

GFC continued to strengthen its presence on Facebook and twitter in fiscal year 2015. All agency press releases were shared on the sites, as were photos of GFC events and professionals. GFC also launched a LinkedIn page. This new social media channel is used to share job postings and relevant publications with more professional audiences.

GFC professionals visited movie theaters across the state to coincide with the release of the Disney movie, *Planes: Fire and Rescue*. Movie fans were able to see real-life versions of many pieces of equipment depicted as cartoon characters in the movie, and were treated to Smokey Bear appearances throughout the day.

As a continuation of the Georgia Forestry Foundation's *Forestry: A Foundation for our Future* program, GFC professionals assisted with a forestry exhibit at the Georgia National Fair in October. The exhibit was housed in the Georgia Grown building and included several forestry-related components, including GFC's forest products tree.

With the addition of a communications specialist, GFC has focused attention on relationships with county commissioners throughout the state. The primary goal of our communications specialist is to educate commissioners about Georgia's Forest Action Plan and ensure they understand the role that they and their counties play in ensuring the sustainability and productivity of Georgia's forest resources. This position is funded with a U.S. Forest Service grant and will continue to work with county governments for two years.



Forest Products Utilization, Marketing & Development

The mission of GFC's Marketing & Utilization department is to add value to Georgia's largest industry—the forest products industry. The department has statewide responsibilities in three major areas: economic development, marketing and technical assistance, and establishing new forest products and values.

ECONOMIC DEVELOPMENT

An economic impact report for the state's forestry industry was completed, showing that the industry contributes \$28.7 billion in output and over 129,000 jobs in Georgia. The department takes an active leadership role in the development and growth of Georgia's biomass energy sector, resulting in a huge success story for the state. Georgia's wood pellet industry portfolio has grown from zero to 10 wood pellet mills from 2007 to 2015, and the largest wood pellet plant in the world (Georgia Biomass) is located in Waycross. One new wood biomass electricity plant (Green Power Solutions of Georgia, LLC) began operations in 2015. Georgia's three dedicated biomass electricity plants provide a total of 114 MW of clean, renewable energy to Georgia citizens. The biomass energy sector provides over \$45 million in wages and salaries to nearly 700 workers. Furthermore, the use of previously under-utilized forest biomass creates additional values for forest owners and encourages the continued maintenance and growing of trees. In addition, several other companies have announced intentions to build wood pellet and biomass electricity plants in Georgia.

The department continues to assist prospective companies with locating sites and analyzing forest resources in a cooperative manner with local and state economic development agencies. Staff provided

assistance to 49 potential projects; 27 projects were bioenergy-related and 22 projects were traditional industry-related.

MARKETING & TECHNICAL ASSISTANCE

We cooperate with other state and local agencies in recruiting new forest product and biomass facilities. We also participate in state, regional and national projects to expand Georgia forest products in global markets through international trade events. The department staffed exhibits at two domestic trade shows and two international trade shows in Dubai, UAE and in Chengdu, China. We produced a multi-state secondary wood-using industry marketing directory, in online and hardcopy formats, and partnered with other state agencies and regional and national organizations in the development of various marketing materials.

Our staff provides technical assistance, such as forest resource analyses, for existing industry expansions or new industrial prospects. We utilize resources from the USDA Forest Service and from internal forest industry surveys to assist with planning the best locations for new forest product and biomass facilities. Resource reports regarding timber and biomass availability were provided to eight companies as part of their feasibility analyses. Technical advice and marketing assistance services totaled 476, including certified wood products and exporting, and disseminating domestic and international trade leads to potential buyers and exporters. Formal presentations were provided to 13 groups, with a total of 277 participants. The department continued to provide assistance to the Georgia Department of Agriculture's Georgia Grown marketing campaign.

ESTABLISHING NEW FOREST PRODUCTS AND VALUES

We work to establish new forest products and values that will encourage forest owners to keep their lands in forests. We developed a fact sheet about carbon sequestration on Georgia's forest lands and we maintain the Georgia Carbon Sequestration Registry. The registry is a tool to assist Georgia forest owners in quantifying the carbon that is sequestered in their growing trees and forests. Staff provided technical advice to seven landowners. The registry may also play a part in the development of the state's carbon reduction plan under the proposed U.S. Clean Power Plan. Staff members also cooperate with regional partners in developing standardized ecosystem services evaluation tools which may lead to new values realized from forests. Outreach efforts included two workshops on utilizing urban wood waste streams. Staff attended several training sessions with the aim of increasing service delivery to customers requesting assistance with timber supply analyses.

Georgia's forest industry would not exist without the state's highly productive and sustainable forests. The state's forests have excess utilization capacity for existing industry expansion or for new forest industries. For these reasons, the Marketing and Utilization department is working to strengthen and expand markets for Georgia forest products.



Reforestation

Many changes have occurred since the FY14 update. Our department has had a very successful year, in seedling sales, seed collection, and keeping the genetic testing program strong. We have filled our vacant positions from last fiscal year. We would like to welcome David Veal as the new seed processing supervisor. David replaced Russell Ayres in that position, and has hit the ground running. David comes to us from Laurens County, where he was a ranger 1 and seedling coordinator. David is proving to be an asset to our department. We would also like to welcome Erica Pfeleiderer to our department. She filled the vacancy left from the retirement of long time Seed Orchard Technician Kenny Thompson. Erica was also a ranger 1 and forest tech from Dougherty and Lee counties. Erica has also been very successful in her new role, and has proven to be an asset to the Reforestation Department. There were many positives this past fiscal year.

TREE IMPROVEMENT

- There were 45 crosses made toward fourth cycle selections at Arrowhead Seed Orchard, and at Flint River Seed Orchard.
- There were four progeny test measured, and the data was uploaded into the NCSU Tree Improvement Co-ops data base, along with the Slash test data sent to the CFGRP for assessment.
- Two progeny tests were installed. One was about 2/3 of an acre and the other around 7.6 acres.
- Maintenance of these test sites were performed during the growing season.
- The Rust Resistance Screening Center steering committee meeting was attended by Jeff Fields.
- The annual NCSU and CFGRP contact meetings were attended by Jeff Fields.

- Jeff Fields continued to serve on the advisory committees for the GFGRP (Slash Co-op), and the NCSU (Loblolly Co-op).
- The GFC continues to play a vital role in the development of pine genotypes for Georgia landowners as well as 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 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 ORCHARDS

The Seed Orchard program continues to be a successful 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 GFC professionals in the field that 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.

Species	Bushels Collected	LBS
Loblolly GA. Giants	210.00	203.00
Loblolly P3	255.00	337.00
Loblolly P3 Select	275.00	310.00
Loblolly RR3	143.00	200.00
Elite Straight Loblolly	50.00	60.00
Premium Slash	780.00	647.40
Select Premium Slash	500.00	415.00
PCR Slash	540.00	448.20

Species	Bushels Collected	LBS Cleaned Seed
Longleaf – Mitchell County, GA	3,100.00	1,643.00
Slash – Bell Brothers	240.00	200.00

Seed that was processed for another company

Species	Bushels Collected	LBS Cleaned Seed
Longleaf – Pinestar Farms	988.50	673.00

In addition to these elite pine species that were collected and processed, there were also 16,599.25 pounds and/or gallons of hardwood seeds collected, processed, and planted!

We also are excited about our new opportunities in the Seed Orchard program area. We were awarded a Landscape Redesign Grant from the federal government totaling \$30,000. This grant will enable us to establish a genetically improved shortleaf pine orchard. This orchard will be strategically placed to minimize the incidence of loblolly pine pollen getting into female flowers and causing the two species to produce hybridized offspring. This new opportunity will position the Georgia Forestry Commission to answer the demand for seed and seedlings when the shortleaf initiative is rolled out.

NURSERY

The nursery program continues to be the financial engine that drives the Tree Improvement and Orchard programs. For fiscal year 15, there were 11,829,958 seedlings sold. That was a 20% increase over FY14's sales. Revenue from seedling sales alone increased by 25%.

The nursery served 1,727 customers, with orders tallying 3,306. The difference in sales is a result of our department reaching out to more tree planters and consultants, who are seeing the benefit of planting the Georgia Forestry Commission's elite genetics.

The Longleaf Understory Species area is continuing to be a success. We saw revenue generated from this area this past year.

One of the most successful stories coming out of our department is the fact that our seedlings reforested around 20,000 acres this past year, and benefited the landowners of Georgia and the Southeast, both economically and environmentally.



Administration

INCOME AND EXPENDITURES			
	FY2013	FY2014	FY2015
FUNDING SOURCE			
FEDERAL FUNDS	7,663,165	6,652,525	9,306,162
FEDERAL STIMULUS	189,073		
OTHER FUNDS	7,849,673	7,266,675	8,168,043
STATE GENERAL FUNDS	29,987,021	30,456,519	32,958,632
GOVERNOR'S EMERGENCY FUNDS	0	0	0
FEMA-FIRE MANAGEMENT GRANT	1,426,716	4,646	0
PRIOR YEAR INVENTORY	0	0	0
TOTAL FUNDS	47,115,648	44,380,365	50,432,837
EXPENDITURES BY OBJECT CLASS			
TOTAL PERSONAL SERVICES	31,184,785	30,619,711	32,937,813
TOTAL REGULAR OPERATING EXPENSES	8,009,164	8,687,455	8,840,852
TRAVEL	285,651	310,013	252,193
MOTOR VEHICLE EQUIPMENT PURCHASES	579,104	402,285	885,041
EQUIPMENT PURCHASES	713,014	469,427	317,264
COMPUTER CHARGES	1,569,755	1,329,409	1,433,907
REAL ESTATE RENTALS	26,320	32,668	30,781
TELECOMMUNICATIONS	655,289	691,432	708,902
CAPITAL OUTLAY	0	45,888	19,518
PER DIEM & FEES	0	0	0
CONTRACTS	3,032,566	1,523,218	4,943,224
WARE COUNTY TAX - RD. MAINT.	60,000	60,000	60,000
WARE COUNTY TAX - S. FOREST	0	0	0
TOTAL EXPENDITURES	46,115,648	44,171,506	50,429,495
EXPENDITURES BY PROGRAM			
REFORESTATION	1,202,909	1,227,022	1,202,326
PROTECTION	33,414,371	32,381,568	35,242,389
MANAGEMENT	8,007,384	7,122,100	10,301,619
GENERAL ADMINISTRATION AND SUPPORT	3,490,983	3,440,816	3,683,161
BONDS			
EQUIPMENT BONDS	5,551,949	3,712,729	6,302,840
CAPITAL OUTLAY BONDS	1,909,129	1,012,545	472,028
NUMBER OF EMPLOYEES	670	678	652

**GEORGIA FORESTRY
COMMISSION**



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