



# 2014 Annual Report





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# Forest Management

## State and Private Forestry Fact Sheet – 2014 Georgia

### Investment in State's Cooperative Programs:

Program	FY 2013 Final
Cooperative Lands - Forest Health Management	\$940,548
Cooperative Lands - Forest Health Management - National Fire Plan	\$0
Forest Legacy	\$75,000
Forest Stewardship	\$756,024
State Fire Assistance	\$ 534,443
State Fire Assistance - National Fire Plan	\$ 1,297,242
Urban and Community Forestry	\$549,353
Volunteer Fire Assistance	\$ 129,158
Volunteer Fire Assistance - National Fire Plan	\$123,785
<b>Total</b>	<b>\$ 4,405,553</b>

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

### PROGRAM GOALS

- The cooperative programs are administered and implemented through a partnership between the Georgia Forestry Commission (GFC), the USDA Forest Service and many other private and government entities. These programs promote the health and productivity of forest lands and rural economies. Emphasis focuses on forest sustainability and the production of commodity and amenity values such as wildlife, water quality and environmental services.
- The overarching goal is to maintain and improve the health of urban and rural forests and related economies as well as to protect the forests and citizens of the state. These programs maximize cost effectiveness through the use of partnerships in program delivery, increase forestland value and sustainability, and do so in a voluntary and non-regulatory manner.

### KEY ISSUES

- The GFC has been closely monitoring USEPA's Waters of the US proposed rule. The Southern Group of State Foresters issued comments in opposition of the proposed rule on behalf of GFC and the other twelve Southern State's forestry agencies. Also, GFC continues to monitor the NEDC vs Decker forest roads NPDES permitting case and potential companion legislation at the national level. The GFC is taking an active leadership role in other SE water resource issues including Cypress Silviculture and Silvicultural Exemption uses for activities in Waters of the US. GFC's Forestry Water Quality team has been involved in working with its Continuing Logger Education partners and has created an online capability for BMP education.
- According to the Southern Wildfire Risk Assessment, Georgia has 11,768 communities at risk; of which 5,066 or 43 percent are rated high or very high risk from wildfires. Twenty

five percent of Georgia's landscape, or 9 million acres, is categorized as Wildland Urban Interface areas. In FY14, there were 112 homes lost or heavily damaged by wildfire in Georgia with another 3,242 saved by direct suppression actions by the GFC.

- The reduction in the domestic use of wood products highlights the need for new markets for forest products from private lands. Wood volume in standing pine saw timber has increased by 94 (29%) million green tons since 2002, which indicates the need for lumber and other market development. Ecosystem service values continue to evolve through voluntary markets and the increasing interest in green business.
- Both new and existing forest product industries are increasing requests for sources of certified wood, particularly from the bioenergy and paper sectors. Georgia ranks 3rd among the southern States in third-party-certified forests, which are enrolled in any of the three major certification systems. This results in the need to educate forest owners on the benefits, costs, and other details of the three systems.
- Georgia continues to support the retention of viable working forests through the support and development of conservation easements. Recent law changes in Georgia now allow for the sale of state tax credits associated with the donation of conservation easements. In addition, there are new requirements for appraisals and other due diligence. We anticipate an increase in interest from private landowners seeking to retain their working forests.

## **PROGRAM HIGHLIGHTS**

### **COOPERATIVE FIRE PROTECTION**

There were 3,417 wildfires that burned over 17,164 acres of private forestland during FY14. State Fire Assistance provided for the safety of Georgia's citizens by assuring they were protected from the threat of wildfires. GFC enforcement personnel investigated 80 wildfires resulting in 3 criminal charges. The GFC serviced 6,041 requests and installed 31,235 miles of pre-suppression firebreaks during the year. There

were 1,567, 909 acres prescribed burned during the year, with the GFC providing assistance on 154,193 acres. The GFC conducted four Prescribed Fire Manager Certification training sessions. Through Redesign funding, the GFC is in the process of developing county-wide Community Wildfire Protection Plans (CWPPs) for 143 counties. We have initiated plans in 140 counties and have completed 139 CWPPs to date. The Federal Excess Personal Property Program assists Georgia in acquiring and placing fire equipment in rural communities throughout the state. Through the Federal DOD Firefighter Program, in FY14 the GFC acquired over 241 individual pieces of equipment to support both GFC and local county and fire and emergency service agencies with a combined asset value of \$13.1 million. In addition, the GFC administers Volunteer Fire Assistance Program funds to support the fire prevention and protection efforts of rural community fire departments. Through the coordination by the GFCs Type II Incident Management Team (IMT) and our expanded dispatch section, the GFC was able to provide National Wildland fire response by filling 54 individual personnel resource orders on 13 wildfire incidents.

### **ECONOMIC ACTION**

The GFC 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 85 potential projects: 55 projects were bioenergy related; and 30 projects were traditional industry related. Resource reports regarding timber and biomass availability were provided to 13 companies as part of their feasibility analyses. In addition, 72 companies were provided site location assistance and other miscellaneous information. One new wood pellet mill (Hazlehurst Wood Pellets LLC) began operations during the year. Several other companies announced intentions to build wood pellet and biomass electricity plants in Georgia. Technical advice and marketing assistance services totaled 273, including certified wood products and exporting, and disseminating domestic and international trade leads to potential buyers and exporters. The 2014 Georgia Secondary Wood-Using Industries Directory (focused on secondary mills) was published. An assessment of the economic impact of forest manufacturing was completed, and it was determined that the industry

results in \$28.9 billion in output and over 133,000 jobs in Georgia. Formal presentations were provided to 17 groups with a total audience of 708 participants. The GFC completed a carbon sequestration project for Fort Benning, GA consisting of 148,539 acres. Fort Benning is the 1st DOD base to undertake a forest carbon sequestration project. In addition, the Georgia Carbon Sequestration Registry program staff provided technical advice to 10 other landowners representing 1,015 acres of forest land.

## **FOREST HEALTH**

The Forest Health Management Group provides statewide leadership and guidance to consulting firms, industry, natural resource managers, landowners, and Georgia Forestry Commission 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), nurserymen, regulatory agencies, and landowners on 131 occasions with 47,976 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, Rhizoctonia seedling blight, Sirex noctilio 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.

## **FOREST LEGACY**

Since being designated and approved as the state lead agency for the Forest Legacy program in 2002, the GFC has closed on 14 tracts totaling 28,061 acres.

Georgia has leveraged three times the non-federal, cost-share funding required by the program. This has been accomplished through donations and state investments. A Quality Assurance Inspection showed that all Forest Legacy appraisals are reviewed to federal standards.

## **FOREST STEWARDSHIP**

The Stewardship Program completed its 24th year of program delivery. This past year, the program continued to undergo significant changes. With the completion of the Statewide Assessment and subsequent Strategies, consultant plan contracting is limited to funds appropriated for designated priority areas or with limited funds for statewide use. Currently, the cumulative enrollment is 2,756 landowners covering 846,357 acres in Georgia. The cornerstone of the Forest Stewardship Program is the Forest Stewardship Plan developed for each landowner in the program. These plans evaluate the landowner's timber, wildlife, soil and water, scenic and recreational resources and make specific recommendations on how these resources can be best managed. In an effort to streamline the plan development process, GFC created several written documents called hub articles which provide consistent and detailed information on several forest types. In addition to hub articles, GFC also created a set of fact sheets to aid plan writers and landowners in managing land and developed a web based portal for plan-writers to store and share common recommendations. The Georgia program has continued to develop partnerships with conservation organizations like the National Wild Turkey Federation (NWTF) and the Quality Deer Management Association (QDMA) to broaden outreach efforts. These have been tremendously successful. Through its Certified Steward designation, FSP also recognizes landowners who demonstrated commitment to forest stewardship by doing an outstanding job of management on their property. New partnerships are being developed in an effort to broaden outreach further by hosting several landowner seminars, partnering with organizations that seek to increase outdoor recreation with handicap or underserved landowners, and groups that seek to improve wildlife habitat on private lands.



## **LANDOWNER ASSISTANCE**

In FY13, the GFC provided technical rural forest management assistance to 2,455 landowners managing 238,257 acres. Cost/Share Incentive Programs: GFC foresters provided technical assistance in developing 4,450 plans covering 267,448 acres under all programs the agency provides technical assistance. In addition, GFC foresters assisted with technical delivery of water quality, tree farm, invasive plants, and forest stewardship with 2,658 written recommendations covering 71,313 acres.

## **FOREST DISEASES**

As of September 2014, the presence of LWD had been confirmed in a total of 44 counties in Georgia, mostly in redbay, but from early 2012 through September 2014, 7 of 13 new county detections were from sassafras trees in the absence of know redbay populations. This indicates that LWD can infect sassafras in the absence of redbay and may spread beyond previously predicted limits. As of December 2014, the disease front in Georgia extends about 150 miles to the northwest, 150 miles to the west, and 180 miles to the southwest from where it was originally discovered near Savannah and includes 40 counties, where approximately eight million acres of forest have been subjected to the disease.

## **FOREST INSECTS**

In 2012, a new first introduction of Tremex woodwasp (*Tremex fuscicornis*) was identified. This woodwasp is a pest of broadleaf trees, and prefers stressed trees that are dead or dying in its native range. Beech, poplar, elm, maple, willow, and oak are reported as hosts for this woodwasp, and in north Georgia this list covers many of the primary species in the forest. For this reason, the Georgia Forestry Commission is taking this introduction very seriously.

*Xyleborinus artestriatus* - This new beetle is established in coastal Georgia. To date, no damage has been documented on native vegetation. Additional states have successfully trapped *X. artestriatus*, and it has been confirmed from surveys in 2014 that *X. artestriatus* in established traps Savannah area.

The Hemlock Woolly Adelgid (HWA) survey was conducted for the eleventh consecutive year. HWA

has now spread throughout the entire natural range of hemlock in Georgia and is now found in 14 mountain counties. Many of the eastern stands are experiencing rapid decline and mortality. Efforts are ongoing to educate professionals and homeowners on techniques to protect specimen and urban hemlocks with systemic insecticide treatments. The GFC supported predator beetle rearing labs with foliage collection and beetle release locations.

The Thousand Canker Disease survey was conducted for the third year in Georgia to detect the spread of the walnut twig borer and the associated thousand cankers disease. No suspected thousand canker disease was found during the survey for 2014.

## **FOREST INVENTORY AND ANALYSIS**

During FY13, Georgia's FIA Foresters collected data on a total of 1,054 plots. Of these, 46 plots were newly-installed National Forest Plots (in the Mountain region of Georgia) with Downed Woody Debris added. Downed Woody Debris collection was also added to 30 plots surrounding the National Forests to help increase fire prediction model accuracy. Fifty Nine 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 97 percent for the fiscal year. GFC was very close to meeting plot completion goals, but remained about one month behind schedule due to employee turnover, training new hires and the added National Forest Plots. GFC has reduced its number of FIA Foresters to 10 (down from 12) due to reduced funding.

## **INVASIVE PLANTS**

Many invasive plants cause problems within Georgia; our efforts have focused on Cogongrass and Chinese privet. In 2014, the GFC continued the Invasive Plant Control Cost Share Program assisting landowners with control of targeted invasive species. Landowners were awarded contracts to control Chinese privet, Chinaberry, Japanese climbing fern, and Chinese Tallowtree on private lands across Georgia. All contracts have been completed and a total of 220 Georgia landowners with 6,660 acres of nonnative invasive were served under this program.

This program will hold another signup period in 2015 with an emphasis placed on funding landowners in a seventeen county area organized under the Coastal Invasive Species Management Area (CISMA).

There have been 92 new cogongrass infestation sites reported and treated by the Georgia Forestry Commission during this fiscal year. Confirmed detections of cogongrass decreased 2014 which has been a steady downward trend since 2012. In Georgia, 205 acres of cogongrass have been treated with all known sites being sprayed at least once. Approximately 78% of all known sites are being reported as negative for cogongrass, and 437 sites (Of the 853) have been declared eradicated. An information newsletter is posted semi-annually on the GFC homepage and is e-mailed to landowners and partners across the Southeast. This newsletter contains reminders for landowners to be vigilant for new infestations of cogongrass, gives pictures for identification purposes, and provides an update on the current status of cogongrass infestations in Georgia.

## **MINORITY OUTREACH**

The GFCs Minority Outreach Program provides outreach and assistance to minority and underserved and owners. The goal is to enhance awareness of GFC programs and services. In FY 2012 the GFC Minority Outreach Program was active through including all landowners with any outreach offered by the GFC.

## **WATER QUALITY**

Funded through the EPA Section 319 grant program, the GFC Water Quality program is staffed with one state coordinator, four Regional Specialists, and seven district/area water quality foresters. During FY14, GFC water quality foresters provided 113 BMP talks to 2,420 people. In addition, GFC water quality foresters put on 26 field day BMP demonstrations with 257 in attendance. These water quality foresters investigated 57 complaints requiring 122 site visits to mediate complaints. Approximately 190 pre-harvest site visits were made. GFC water quality foresters completed the 9th Statewide Silvicultural BMP Survey during FY14, targeting approximately 209 randomly selected sites. BMP implementation statewide was found to be 89.9 percent overall. The GFC continues

to be involved in the Governors Comprehensive Water Plan Study Committee and State Forester Robert Farris is a member of the State Water Council. The individual regional plans have been developed and address water quantity and quality issues. As required by state law, the Regional Councils have continued to meet periodically with GFC foresters attending as needed.

## **URBAN AND COMMUNITY FORESTRY**

In FY-2014, Georgia had 139 Tree City USA communities, 13 Tree Campus USA schools and one Tree Line USA utility.

Funds from the Urban & Community Forestry Assistance program were redirected in FY-2014 due to an overall decrease in Federal funds and fewer applications from new partners. The GFC used the federal funding to contract with the Georgia Urban Forest Council to utilize circuit-rider arborists to make personal visits and assist communities to develop community forestry programs. Services provided included revising tree ordinances, conducting hazardous tree assessments, preparing storm mitigation plans, conducting tree inventories and training 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 80 tree care workers and potential 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.

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 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](http://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 work with the Green Infrastructure (GI) Management System Guidebook to identify, link and collectively manage these diverse ecosystems was developed in partnership with the Coastal Regional Commission.

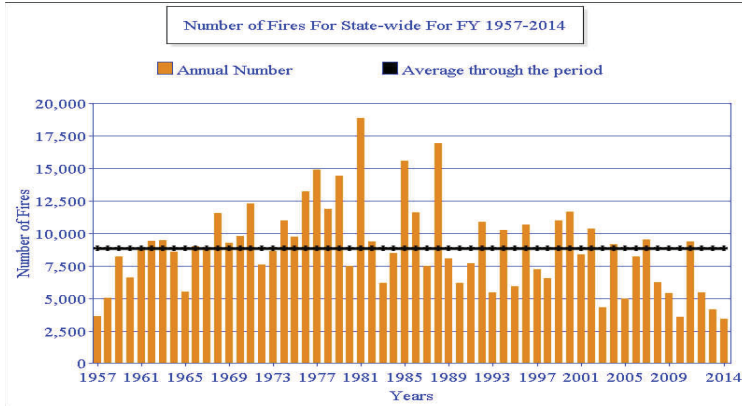
SCFP also provided assistance to GEMA and FEMA after the 2014 federally declared ice storm. SCFP foresters provided debris estimations and woody debris removal guidance in 39 impacted counties. Following this ice storm, SCFP deployed an Urban Forest Strike Team to assist the community of Waynesboro with hazardous tree assessments. In addition, 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.



# Forest Protection

## WILDFIRE ACTIVITY

Wildfire occurrence last year was the lowest on record since 1957 (57 years) and the 4<sup>th</sup> on record for acres burned in the same time frame. We experienced 3,416 wildfires in FY14 that burned 17,164 acres in Georgia. We recognize that the increased amount of rainfall contributed to this reduction however we also have had years where rainfall equaled or was above what we experienced but wildfire numbers were above FY14. 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

Even though we started out the first half of the fiscal year with some pretty undesirable prescribed burning conditions, the fuel and weather conditions began to change, especially during the months of Jan thru May, which provided opportunities for good prescribed burning. The GFC provided 1,996 burn assists for landowners in Georgia totaling about 169,026 acres or about 11% of the total acres burned. When compared to the five year average the numbers of burn assist were above average with the total acres burned increasing approx. 2,000 acres above average.

Year	2010	2011	2012	2013	2014
Total Burn Assist Number	1,864	1,851	1,666	1,954	1,996
Total Burn Assist Acre	148,237	176,409	146,572	195,751	169,026

Pre-suppression plowing and harrowing services for FY14 dropped below the fire year average for both number of landowners serviced as well as the total hours/miles of firebreaks installed. We contribute this reduction to the unusually wet soil conditions in the fall and winter season when typically firebreaks services are rendered. In FY14 the GFC performed a total of 5,054 plowing/harrowing services for landowners in the state which equates to 29,055 miles of firebreaks installed by GFC professionals.

Year	2010	2011	2012	2013	2014
Total Plowing Serviced	2,219	3,379	3,260	3,083	2,428
Total Plowing Miles	9,197	13,338	13,579	13,469	11,725
Total Harrowing Serviced	2,607	3,365	3,090	3,148	2,626
Total Harrowing Miles	15,018	20,583	19,117	18,845	17,330

## WILDFIRE PREVENTION

Another year of above normal precipitation provided lower numbers of human caused wildfires to occur statewide, but the Georgia Forestry Commission continued with diligence in educating citizens, county governments, fire department personnel, and other state and federal agencies about the high risk of wildfires in the future.

Two new temporary Regional Wildfire Prevention Specialists have been added to the Community Wildfire Planning staff including: Mark Wiles who has been working in our Coosa District and the eastern portions of the Oconee District & Beryl Budd who has been working in the Metro-Atlanta area, Chattahoochee District and the western portions of the Oconee District. Both were tasked with assisting high risk communities with fire planning and mitigation.

The Career Development Initiative (CDI) has provided individuals from across the state who has taken on additional duties as their district Fire Prevention and Mitigation Coordinator. Over the course of past 12 months our district coordinators have been included in supplemental fire prevention and Firewise training to include: P301, Fire Prevention Planning; P310, National Fire Prevention Team Member; The National Fire Protection Association's Home Ignition Zone Course; and many online Wildland Urban Interface trainings. Their additional assistance has helped gain a strong foothold for fire prevention at the local county level across Georgia and has made a huge impact at continuing to reduce wildfires.

Two National Fire Prevention and Education Teams were deployed this year. The first team was deployed in Polk and Haralson Counties with the mission of educating property owners about the benefit and use of prescribed fire. The second team was deployed to White, Habersham, and Stephens Counties in order to make homeowners aware of the Firewise Program. Both were interagency teams, including individuals from the Georgia Forestry Commission, US Forest Service, Department of the Interior, and State Fire Marshal's Office.

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 agency took advantage of using a few local publications for Fire Prevention and Mitigation outreach. The Georgia Outdoor News, Georgia Magazine, and Farm Bureau publications made large impact on audiences across that state.

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

The Forest Protection Department received US Forest Service redesign grant funding beginning in late 2009 to promote Community Wildfire Protection Plans statewide. The Georgia Forestry Commission concluded this grant cycle on March 31<sup>st</sup>, 2014. Though our CWPP grant funding has concluded, emphasis has still been placed by the agency on creation and renewal of plans statewide.

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.

As of June 30<sup>th</sup>, 2014 the program had completed 147 of Georgia's 159 county plans. Through a great 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 goal of one hundred percent completion has been set for FY15.

### **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. Join the growing network of more than 1,028 recognized Firewise communities taking action and ownership in preparing and protecting their homes against the threat of wildfire.

Georgia's program has grown extensively this year to include 9 new communities. The addition of the two new part-time staff members has allowed our program to grow into new areas of the state. Georgia currently has 58 Firewise, USA communities and it tied with Florida for the 7<sup>th</sup> most in the nation.

Along with these new communities the Fire Adapted Communities concept emerged in Georgia. 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.

Georgia's Towns County was selected late last year to serve as one of nine pilot communities nationwide. With the help of the Georgia Forestry Commission and the US Forest Service this new concept model has really enjoyed great success in becoming "Fire Adapted".

The Georgia State Fire Marshal's Office adopted the 2012 International Code Council Wildland Urban Interface Code. The Georgia Forestry Commission,



since the state's adoption, has worked in conjunction with State Fire Marshal's Office to begin educating the county commissioners and fire personnel across the state about the code and who they can begin to utilize this code to assist in reducing the risk of home loss in the WUI.

### **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 to help manage and operate the new equipment. These coordinators along with county rangers across the state have mechanically treated nearly 1000 acres.

### **TYPE II INCIDENT MANAGEMENT TEAM**

Over 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.

The GFC IMT continues to hold national status however no Team assignments were made in FY14 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 for various statewide training opportunities as well as participated in two national level training sessions related to wildland fire behavior and tractor-plow/dozer operations and safety. One statewide IMT meeting was held in FY14 where Team members evaluated deployment procedures, training needs and IMT operational procedures.

### **LAW ENFORCEMENT**

Georgia Forestry Commission's Law Enforcement continues toward its goal to become the best forestry investigation program in the nation. Through training,

experience, equipment acquisitions, and the hard work of our Investigators, the program has become highly recognized throughout the southeast United States.

During the 2013-2014 Georgia General Assembly Session, House Bill 790 was passed and signed into law by Governor Nathan Deal. The bill, affectionately known as the Timber Security Bill, became effective on July 1<sup>st</sup>, 2014. The main purpose of the bill was to strengthen the credibility of Georgia's timber harvesting operations while also protecting our forest landowners. The new law provides a four year statute of limitations for recovering damages from an authorized timber harvest. Civil penalties for unauthorized harvests have been increased, with treble damages available to victim landowners along with attorney fees and reforestation costs. A method of reducing civil liability for landowners during a timber harvest was also created in the law. The scale ticket law was updated, with the biggest change requiring tickets be provided to landowners within 20 days.

The most significant portion of HB790, in reference to the Georgia Forestry Commission, was the changes to the authority of GFC Law Enforcement Investigators. Investigators are now authorized to enforce any law relating to the protection, security, conservation, or sale of forestry or timber resources. This change is a significant addition, as GFC Law Enforcement responsibilities now include all aspects of timber security.

GFC Law Enforcement continues to work under a USFS Redesign Grant awarded in 2012 to develop a southern area arson task force. In August 2013, more than 40 forestry investigators from the southern states met in Georgia for a second week long training seminar and continue to work on an organizational plan. A third training seminar is scheduled for September of 2014 to build on the advanced training for the southern forestry investigators.

In June 2013, GFC was awarded another Firefighter's Assistance Grant. This grant was the third such award for GFC Law Enforcement in the past four years, totaling more than \$376,000 for the improvement of the fire investigation program. Training funding from this grant allowed the Law Enforcement Department to teach a Wildland Fire Observations and Origin Scene Protection for First Responders (FI-110) and a Wildland Fire Origin and Cause Determination (FI-210) to GFC fire control personnel. Additional

equipment was purchased including evidence collections supplies, night vision, and vehicle storage systems.

One of the most important projects of the FFA Grant was a campaign to address the increased number of injuries and fatalities on wildfires and debris burns that Georgia has experienced in recent years. A media outreach operation included utilizing publications with high subscription to our target population. The Georgia Farm Bureau Television program, Farm Monitor, was a great partner and assisted by filming and broadcasting a segment about the problem and how Georgian can reduce their risk.

From July 1, 2013 through June 30, 2014, GFC Investigators opened a total of 86 cases. There were 35 fire investigations, six fire investigations involving a fatality, 40 arson investigations, and five other cases (aggravated assault, theft, etc.). Those investigations resulted in three criminal charges being filed against suspects. Investigators were only able to investigate a small portion (less than 20%) of the 247 incendiary fires GFC reported during Fiscal Year 2014. GFC Law Enforcement obtained a combined total of 673 hours of law enforcement training recognized by Georgia Peace Officers Standards of Training. This represents the high standard and personal dedication the GFC Investigators have for the Law Enforcement Department.

## **RADIO COMMUNICATIONS**

Georgia Forestry Commission Radio Communications is responsible for maintaining a reliable radio communications infrastructure, consisting of 70 repeater sites, 328 tractor radios, 481 fleet vehicle radios, 405 portable radios, and 140 base radios. All of these systems interact with the 10 control stations strategically positioned across the state that allow the units to communicate with our Response Centers, when suppressing wildfires, conducting burn operations, or responding to various incidents that threaten the domestic tranquility of Georgia's citizens.

FY 2014 proved yet again to be a very busy year, with the completion of the narrow banding project, and the many other radio missions in progress. We changed the air frequency configuration a couple of times to improve air communications, with successful results. We have been working constantly to get a useable frequency program for mobile, base, and portable radios to improve communications by using digital

tones to eliminate the interference and unwanted noise and will try to push that out early FY 2015. GFC Radio Communications was invited to assist in two statewide exercises hosted by GEMA, to help provide tactical communications in case of a weather or terrorism event, to support GFC and other agencies.

Mother nature has also provided us with some working opportunities. We have had weather related repairs at seven out of ten control stations (some more than once) and nine county units. Repairs to mobile and portable radios were about the same as last year, which have been a little lower, due to milder overall fire activity.

The CDI coordinators for Radio Communications were chosen with periodic openings due to employment changes. Goals were established, met, and in many cases exceeded. Communications working team (CWT) members installed, repaired, or changed over 150 radios this last year, not including antennas and office remotes. CWT members have attended essential training when available.

We have started a transition from BK/ReIm Radios to Midland Brand radios. This decision was not entered into lightly. There was much discussion, investigation, and demonstration involved before this change was decided on and it will coincide with our inventory replacement schedule.

Base radio towers were added in Bartow and Dade Counties as they were new construction units. A tower was added in Polk County due to damage caused to the building by the existing tower that had to be removed. One repeater was relocated in Screven County to add height and more security with a backup power plan. A repeater was added on the Sidney Lanier Bridge that will go into use in FY2015. There are plans to add more repeaters in needed areas as funds become available. These changes were made to enhance and extend service in the affected areas around the sites listed.

The grounding projects for the Flint District County Units were completed in FY2014, this was a very large task handled well by the CDI coordinators and the Flint District personnel. Other districts are looking at their grounding needs for the upcoming year.

Radio Communications personnel look forward to serving in a larger capacity in the upcoming fiscal

year, to help make the entire operation work Faster, Friendlier, and Easier for the Georgia Forestry Commission.

## **REGIONAL RESPONSE CENTERS**

During FY2014, the Regional Response Centers issued 24,274 burning permits statewide; accounting for 30.34% of the burning permits issued. This is an 8% increase over last year.

The Response Centers had several changes take place during FY2014. One of the changes that took place was the implementation of the new GFC Flight Tracking software, Spider-Tracks. Also, the Response Centers began working with the newly updated IPICS radio software. One of the most beneficial changes was the newly created repeater check database. Each day, specified districts and repeaters are checked to ensure that they are operating properly. This information is visible by all GFC personnel and allows the field to see when their repeater was last checked and which unit performed the radio check. Any issues with radio communications are reported to the Radio Communications staff for investigation.

The Response Centers dispatched resources and personnel to 5,870 calls during FY2014 which resulted in 3,414 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 overall 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. This was done in an effort to enhance our abilities to respond to an incident or accident as effectively as possible. Quarterly and annual training programs were continued and improved upon. The unit participated in over 800 total 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. As a result of the high level of participation the majority of Air Ops employees realized advancement in CDI level.

Air Operations strives to train and qualify cooperators within the state that might participate with us on an incident. In line with that 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, and hosted a GPSA (Georgia Public Safety Aviators) training event, maintained contact with the other state/local agencies and started the preparations for this year's training event.

The flight following program was developed further by refining radio protocols and installing a more reliable and more user friendly tracking system. This has resulted in improved dispatching capabilities, increased safety, and reduced radio traffic.

Air Operations pilots reported 357 wildfires and worked 386 wildfires, reported 1295 controlled burns and checked over 17,500 controlled burns. The Air Operations Maintenance Team performed 30 FAA inspections, and responded to 39 unscheduled maintenance events.

Next year's goals include continued safety improvements through attaining additional ratings and licensing for pilots, improving and replacing aging equipment, conducting a live fire training event with cooperator agencies, and exploring opportunities for mission diversification. We hope to find ourselves utilized more throughout the agency as other departments realize the capabilities we have and the services we can render.

## **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. The GIS program focuses on internal and external customers that include 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 the urban interface in firefighting. 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. A total of 208 shapefiles in FY14 were submitted to the USFS to meet the documentation requirement.

The GIS program continues to map GFC assets, such as unit and equipment locations, to assist with closest resource response coordination. The GIS staff can run a network analysis tool to determine 45 minute response coverage from a unit, average response time to fires within a year, and average response time for rangers to drive from their home to the unit. This analysis can assist decisions on current and future unit placements across the state. Analysis for initial response distance from Ranger residences to GFC Forestry Units is to identify response times and for analyzing policies on call-back pay.

GIS supports FMAG applications such as identifying and mapping homes, structures and public infrastructures at risk from active wildfires. Also, assistance is provided on large fire support or all-hazard incidents for Incident Management operations such as Winter Storm Pax.

GIS also assists with the maintenance needs of the Southern Wildfire Risk Assessment and the rollout of SouthWRAP. SouthWRAP is a new application developed by the Timmons Groups with the collaboration of the thirteen Southern state forestry agencies, US Forest Service (Region 8), US Fish and Wildlife Service Southeast Region, Bureau of Indian Affairs (Eastern Region & Southern Plains Region) National Park Service. SouthWRAP is the primary mechanism for the Southern Group of State Foresters

(SGSF) to make wildfire risk information available and create awareness about wildfire issues for the Southern states. Results of the SWRA can be used to help prioritize areas in the state where tactical analyses, community interaction and education, or mitigation treatments might be necessary to reduce risk from wildfires. Along with this, GIS supports the CWPP (Community Wildfire Protection Plan) Program. A CWPP provides a community with a road map of its risk from wildfire.

The GIS Program is exploring the potential technology to provide live tracking of resources. This will increase ability for personnel to fight fire in a safer and more effective manner. This technology will help protect life, property, and the natural resources of the state of Georgia. Currently, we are assisting GFC Information Technology personnel with a demo of this technology. We will be assisting in the testing of software developed by CTS America within the Southeastern part of Georgia.

The GFC is represented by the GIS Program for interagency committees and GIS Groups. These committees and groups include: Georgia GIS Coordinating Committee (GISCC), Urban and Regional Information Systems Association (URISA), Southern Group of State Foresters GIS Committee, Southern Wildfire Risk Assessment Steering Committee, and National Cohesive Wildland Fire Management Strategy.

## **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. This year there was approx. 1.5 million acres prescribed burned in Georgia reported within and reported by our burning permit information system. Silviculture burning accounted for the majority of those acres at about 1.1 million 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 225 students attending. To date, there are nearly 3,000 Certified Burners in Georgia.

The Georgia Prescribed Fire Council held its annual meeting in Tifton this year, with over 150 burn practitioners in attendance. Several topics were presented, with Managing Wildlife Habitat with Fire, Media Relations, Current Air Quality, and Weather Climatology for the upcoming burn year. Visit the Councils website at [garxfire.com](http://garxfire.com) for more information and this year's annual meeting registration.

## **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 received 68,000 visitors and 357,000 hits per month in FY2014

We began testing a SuperFog Index developed by a National Weather Service forecast office, a Superfog category developed by a retired United State Forest Service research, and a GFC SuperFog index, which combined the two indexes, in our GFC District Weather Forecast. The ultimate goal is to provide a better index that enhances the ability of fire manager to predict a super fog event so that negative impacts can be avoided.

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](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.

In December 2013, two weather station coordinator positions were developed to help the 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.

Between December 2013 and February 2014, firmware in data loggers at nine weather stations was updated. The updated firmware will enable the data logger to reset total rainfall amount to zero on January 1 each year.

In February 2014, the weather office purchased 142 Kestrel 3000 for County Units, foresters, and district managers utilizing a federal grant. This will help field personnel to stay abreast of current weather while doing field work.

## **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 with less than 10,000 population, provides opportunities for training, personal protective equipment as well as 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 with over 1,700 pieces of fire suppression equipment statewide. This equipment is in the form of vehicles, fire pumps, water tanks and various other type 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 to suppress 3,243 wildland fires in FY14. In addition, the training and equipment provide through the RFD program supports local fire department in their response to local emergencies such as motor vehicle accidents and fires, structures fires and other miscellaneous 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 the citizens.

The GFC works closely with the Rural Fire Defense Council in Georgia to ensure that 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 FY14.

## RFD FISCAL YEAR 2014 FIRE SUMMARY

Cooperating Fire Departments Statewide Report

Type Fire	Number	Acres	Level of Damage		
			Light	Moderate	Extensive
Wildland (or the old Forest Land)	3,243	12,566.95			
Open Land	0	0.00			
Motorized Equipment	1,359	0.00	485	350	523
Structural	2,432	0.00	1,179	541	25,709
Miscellaneous	11,115	0.00	0	0	0
Grand Total	18,149	12,566.95	1,664	891	26,232
<b>Number Pieces Of Equipment NOT In Service</b>				<b>51</b>	
<b>Total Number Pieces Of Equipment</b>				<b>1,715</b>	
<b>Number Counties Utilizing RFD Equipment</b>				<b>120</b>	
<b>Number Departments Utilizing RFD Equipment</b>				<b>397</b>	
<b>Total Number Of RFD Stations</b>				<b>927</b>	
<b>Number Of Outstanding Requests: Lease/FED/State Excess</b>				<b>493</b>	
<b>Number of Fire Department Meetings Attended by GFC Personnel</b>				<b>2,539</b>	

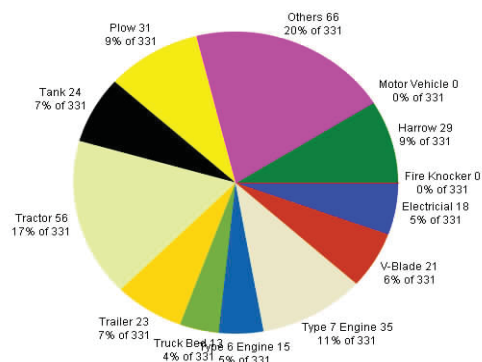
### EQUIPMENT AND RFD FABRICATION SHOP

The GFC's fabrication shop continues to provide construction, repairs and oversight of both GFC's and 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 are introduced that require modifications to designs and fabrication phases. GFC fabrication welders and mechanics strive to provide high quality and timely products that keeps 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 FY14, the Fabrication shop performed a total of 331 work projects.

### FABRICATION SHOP PRODUCTION REPORT FROM 7/1/2013 TO 6/30/2014

Equipment Classification	New	Repair	Paint	Other	Total Number of Projects
Electrical	9	7	2	0	18
Fire Knocker	0	0	0	0	0
Harrow	1	28	0	0	29
Motor Vehicle	0	0	0	0	0
Others	31	20	14	1	66
Plow	5	21	5	0	31
Tank	13	9	2	0	24
Tractor	12	30	13	1	56
Trailer	4	18	0	1	23
Truck Bed	7	2	3	1	13
Type 6 Engine	11	4	0	0	15
Type 7 Engine	9	26	0	0	35
V-Blade	6	13	2	0	21
<b>Total</b>	<b>108</b>	<b>178</b>	<b>41</b>	<b>4</b>	<b>331</b>

Percentage Of Projects By Classification







# Communications

Communications staff for fiscal year 2014 consisted of a director, an administrative assistant, a conservation education coordinator and a contracted writer.

Internal communications within the agency continues to improve. GFC Headline News continues to be well-received. The *Ask the Director* intranet site has been removed temporarily as the department reviews its effectiveness.

During the year 10 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.

GFC continued to strengthen its presence on Facebook and twitter in fiscal year 2014. All agency press releases were shared on the sites, as were photos of GFC events and professionals.

GFC worked with Tim Wommick to create a webcast of our Arbor Day school program. The webcast, funded through a U.S. Forest Service grant, was open to all Georgia schools live on February 20. Video from the webcast remains available for viewing on GFC's website. A total of 93 schools viewed the webcast live, with an estimated audience of 3,997 students. The webcast was promoted with a joint letter from GFC Director Robert Farris and State School Superintendent John Barge to all Georgia school superintendents. The event was also promoted with a press release and on GFC's social media channels.

Georgia Forestry Commission partnered with the Georgia Forestry Foundation for the Forestry: A Foundation for our Future (FFOF) program in FY14. The program was designed to target students in grades 5-12 across Georgia and invite them to submit artwork and a slogan conveying what Georgia's working forests mean to them. Two winners were selected, one each for grades 5-8 and 9-12. Each winning entry will be awarded a prize valued up to \$35,000, which includes a \$15,000 cash award to the school, \$2,500 cash award and forestry camp scholarship to the student, Project Learning Tree environmental professional development for up to 20 teachers and an invitation to attend the Georgia Teacher Conservation Workshop for two teachers from the winning schools, a field trip for students in the grade level of each winning student, and materials featuring the winning artwork and slogan. A website ([www.forestry4future.org](http://www.forestry4future.org)) was established for the program and promoted via press releases, social media and product literature.



# Forest Products Utilization, Marketing & Development

The Forest Utilization & Marketing Department saw many changes during FY14. We had several personnel changes including one retirement, one resignation, one promotion, and two new personnel. Although short-staffed for about one-half of the year, the department continued to provide technical and marketing assistance to the forest products community, provided leadership to expand the value of Georgia's forests by pursuing forestry and bioenergy economic development projects, and provided assistance to forest landowners through the carbon sequestration registry program. Through these efforts the department strives to sustain the economic viability of forestland ownership in Georgia by ensuring that Georgia's forest industry remains a leader in the global marketplace while also contributing to the state's economic well being.

## **TECHNICAL ASSISTANCE AND FOREST PRODUCT MARKET DEVELOPMENT**

The GFC Forest Utilization & Marketing Department staff responded to 273 individual requests for technical and marketing assistance including certified wood products and exporting, including distributing domestic and international trade leads to Georgia forest product companies; and other miscellaneous requests for assistance. Formal presentations were provided to seventeen groups during meetings, workshops, or conferences with a total audience of 708 persons. The topics of these presentations included: expanding wood product markets, the economic impacts of forestry, forest certification, financial returns on forestry investments, and general wood products. A total of 3,295 literature items were distributed in these various activities.

In January 2014, Utilization staff contributed to the development of the five-year report for the Georgia General Assembly, Sustainable Forest Management in Georgia, by authoring two sections in Chapter

Two, Benefits of Georgia's Forests: Socioeconomic and Ecosystem Services.

In March 2014, in an intra-agency project between the GFC and the Georgia Department of Transportation (GDOT), Utilization staff developed a Salvage Verification Affidavit (SVA) procedure that helped expedite the harvest of storm damaged timber from two ice storms in February. The procedure was developed in response to Governor Deal's Executive Order allowing for increased truck weights for the transportation of damaged timber to wood markets for a 120-day period. GFC Foresters conducted field inspections of the damaged timber and provided 33 salvage verification affidavits that enabled timber harvesters to acquire their GDOT over-weight permits. With the SVA procedure an estimated 8,733 truckloads of damaged timber was harvested on approximately 6,107 acres in east-central Georgia, primarily in Burke and Screven counties. This project was a good example of two state agencies assisting each other and their constituents with facilitating and expediting the rapid removal of damaged timber from the ice storms.

In April 2014, Utilization staff, in cooperation with the USDA Forest Service Southern Research Station, began the 2013 biannual Timber Products Output mill survey of approximately 150 primary wood-using industries in the state and completed 29 surveys; consisting of timber drain and mill production data. This project will conclude by December 2014. As a by-product of the survey, an updated Georgia Primary Wood-Using Industry Directory will be published in 2015.

The Department completed a project begun in fiscal year 2013 to develop a secondary wood-using industry directory. Information was collected on 1,081 existing firms for the publication, Georgia Secondary Wood-Using Industries Directory 2014. An update of

this directory will take place in the first half of calendar year 2015. In addition, Utilization staff partnered with several southeastern states (FL, KY, NC, SC, and VA) and Southern Regional Extension Forestry to develop a regional online directory which will augment the primary mill directory currently available at [www.forestproductslocator.org](http://www.forestproductslocator.org). These marketing platforms will provide greater visibility of wood-using industries through the entire wood supply chain which could lead to more economic activity. The regional secondary wood-using industries online directory project will be completed in the third quarter of 2014.

The staff developed a variety of tools to improve wood product values and production. They included fact sheets and publications on forest industry economic impacts, wood product exporters and forest certification systems. Of particular note, staff authored and co-authored a new series of forest investment publications with Dr. David Dickens and Dr. David Moorhead of UGA. The new series provides possible returns for intensively managed pine stands with the first four publications exploring 15-year and 24-year rotations. These will be beneficial to landowners and GFC employees who have interest in forest investments, fertilization, and pine straw harvesting. These publications are available on the GFC website at [www.gatrees.org/utilization/economic-impacts](http://www.gatrees.org/utilization/economic-impacts).

The Department contributed to four of the GFC E-newsletters, which were distributed electronically to thousands of customers within the forestry community. Department staff established and manned marketing exhibits at domestic trade shows and conferences including the International Agribusiness Conference in Savannah in September; the Bioenergy Fuels & Products Conference in Atlanta in March; and the Southeastern Wood Producers Association Conference in Jekyll Island in June. Approximately 1,000 attendees visited the GFC Utilization & Marketing exhibit at these events and many contacts were made with potential investors and project developers, particularly in the wood pellet industry. In addition, the department head gave a presentation, Pellet Development in the South - A Foresters Perspective to over 100 attendees at the International Biomass Conference & Expo's Pellet Supply Chain Summit in Orlando, FL in March 2014. The presentation highlighted the importance of Georgia's forests on a global, national and regional context. With external funding provided by the Southern Group of State Foresters, Utilization staff promoted the export of Georgia wood products globally at a forest products tradeshow in the United

Kingdom (England) in September 2013. The staff also cooperated with the Hardwood States Export Group and the Georgia Department of Economic Development's International Trade Division by ensuring that Georgia's wood products manufacturers were made aware of appropriate export opportunities.

The Department continues to be active as a member of the Southeast Agriculture and Forestry Energy Resources Alliance (SAFER) Southern Bioenergy Working Group, a member of the Hardwood States Export Group, a member of the Georgia Economic Developers Association, a member of the Forest Products Society, and actively coordinates with the USDA Forest Service in interpreting forest inventory and analysis data for various scientific reports.

The Department coordinates the development of the Economic Benefits of the Forestry Industry in Georgia annual reports which are prepared by the Enterprise Innovation Institute of the Georgia Institute of Technology under contract to the GFC.

In June 2014, Utilization staff provided continuing assistance to the Georgia Department of Agriculture's Georgia Grown forest products marketing program.

## **ECONOMIC DEVELOPMENT OF FORESTRY RELATED PROJECTS**

The GFC Forest Utilization & Marketing Department continues to cultivate prospective companies by providing services such as locating potential industrial sites and analyzing forest resources. These services are provided directly to prospects or indirectly via local and state economic development agencies.

The department provided assistance to 85 potential projects. Fifty-five projects were bioenergy related, i.e. producing energy products from forest biomass. Thirty projects were traditional industry related, i.e. companies considering expanding in Georgia with new traditional wood products facilities. Resource reports regarding timber and biomass availability were provided to 13 companies as part of their feasibility analyses. In addition, 72 companies were provided site location assistance and other miscellaneous information.

Utilization staff has provided significant assistance to several companies in Georgia's growing wood pellet manufacturing sector. Hazlehurst Wood Pellets LLC, Georgia's newest wood pellet plant,



began production in March 2014. The mill's first phase will produce 150,000 tons of wood pellets per year utilizing southern yellow pine wood chips. Two additional phases will ramp up total production to 450,000 tons of wood pellets per year. The 150,000 and 450,000 tons of pellet production equates to 300,000 & 900,000 tons, respectively, of new pine fiber demand in the region. Georgia now has 10 wood pellet plants; in 2007 there were zero. Most of the wood pellets produced in Georgia are exported to European Union electric utilities, while a small portion are sold in domestic markets, principally the northeastern U.S. According to the Georgia Ports Authority, ports in Savannah and Brunswick shipped over one million metric tons of wood pellets in fiscal year 2014. Several other public announcements of planned wood pellet mills were made during the year although it is too early to determine if they will actually come to fruition.

Another successful economic development project for the department was its assistance to a prospective company seeking potential sites to establish a log export facility near Savannah, which resulted in the company establishing a log yard and shipping container loading facility in Garden City, GA at a brownfield industrial site. This new facility exports pine logs to China and India at the previous location of the closed creosote plant, Savannah Wood Preserving.

In February 2014, Utilization staff hosted a delegation of 25 international trade representatives from the Georgia Department of Economic Development's International Trade Division at the GFC headquarters. Staff members gave presentations covering topics such as the economic importance of forestry to Georgia's economy; history of forestry in Georgia; GFC services overview; forest sustainability; and the cooperative relationship that exists between GDEcD and GFC in working to expand economic opportunity in Georgia.

## **NEW FOREST PRODUCTS AND VALUES**

The Utilization Department provided support regarding biomass energy for many activities with particular emphasis being the production of resource reports to industries, which provide information on the inventory of Georgia's forest biomass and its level of sustainability.

In April 2014, Utilization staff also participated in international dialogue, in particular providing insight

in a meeting with a representative of a Scandinavian electricity utility provider and member of the Sustainable Biomass Partnership in the European Union, concerning sustainability standards of biomass sourced in the southern U.S. for wood pellets that are being utilized in European markets.

Utilization staff gave several educational presentations at various venues for forest owners, forest industry representatives and GFC foresters and forester technicians at the GFC forester training seminar at St. Simons Island in August 2013.

In December 2013, Utilization staff completed a carbon sequestration project for Fort Benning consisting of 148,539 acres. The project was registered on the Georgia Carbon Sequestration Registry, [www.gacarbon.org](http://www.gacarbon.org), making this the first project registered in nearly four years. Fort Benning's extensive forest currently stores 16.8 million metric tons of CO<sub>2</sub> equivalent, with an annual projection to sequester an additional 301,000 metric tons. This annual projection equals the annual greenhouse gas emissions from over 67,000 passenger vehicles and CO<sub>2</sub> emissions from 15,000 homes. According to the Department of Defense, Fort Benning is the first Department of Defense base to undertake a forest carbon sequestration project. In addition, the Georgia Carbon Sequestration Registry program staff provided technical advice to ten additional landowners representing 1,015-acres of forest land. Acres enrolled in the Registry from all projects now total 150,483.9. Technical assistance was also provided to five landowners on other types of ecosystem services.

In the final year of a four-year project, Utilization staff hosted a forest certification workshop in Tifton at the UGA Campus Conference Center in April 2014, titled "Forest Certification: From the Woods to the Mills and Beyond." The workshop focused on group certification, chain of custody and other issues pertinent to Georgia's forest industry. The workshop targeted land management foresters, procurement foresters, wood buyers, loggers and mill managers and over 50 people attended, including several GFC personnel. Speakers from the major certification systems including the American Tree Farm System (ATFS), Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) were represented, as well as Dr. Jeff Stringer, founder and director of the Center for Forest & Wood Certification (University of Kentucky Forestry Extension). This workshop was

the third in a series and an offshoot of the Utilization staff co-authored 2011 report from the Southern Group of State Foresters, Forest Certification Programs: Status and Recommendations in the South. The objective of this report was to educate forest landowners, forest industry and forestry state agencies about the various certification systems and to explore potential implications that might exist with regards to improving market access in domestic and global forest products markets. The report is due for a revision in fiscal year 2015.

The Utilization department continued its participation in a USDA Forest Service regional ecosystem services evaluation project to develop standardized criteria for valuing specific forest ecosystem services. This project should be completed in fiscal year 2015.

Utilization staff completed the establishment of two biomass demonstration plantings on the Bartram State Forest and Dixon Memorial State Forest in Milledgeville and Waycross, respectively. The two piedmont and coastal plain sites, respectively, were established in the last couple of years with funding provided by a USDA Forest Service grant. The reforestation projects integrate biomass into a traditional plantation management rotation by alternating rows of species and tree spacing. The concept provides a biomass market by harvesting biomass at 8-12 years of age, rather than a traditional pulpwood harvest at 15-18 years. Data will be collected on these demonstration sites over their life spans including growth rates and financial analyses of the various planting regimes. The long-term project will provide valuable data for forest owners on managing their forests for traditional timber products as well as biomass tree crops and provide an additional forest management option for emerging biomass markets.

### **GEORGIA FOREST INDUSTRY ECONOMIC STATISTICS**

Georgia's leadership in the production of forest products in the U.S. south, nation and world is possible because of the state's highly productive forests. On average, Georgia's 24 million acres of commercial timberlands grow more than 20 million tons more wood per year than is harvested, resulting in growth exceeding removals by 41% for all species combined.

- Georgia leads the nation in the production of poles

- Georgia leads the U.S. south in softwood and total post & pole production
- Georgia leads the U.S. south and nation with 7,748,182 forest plantation acres

Georgia's 24 million acres of forests support a \$28.9 billion forest products industry, including the following industry leaders:

- The largest hardwood sawmill in the U.S. – Beasley Forest Products – Hazlehurst, GA
- The largest recycled paper mill in North America – SP Fiber Technologies – Dublin, GA
- The largest wood pellet plant in the World – Georgia Biomass – Waycross, GA
- The largest crude tall oil bio-refinery in the World – Arizona Chemical – Savannah, GA
- The largest wood rosin plant in the World – Pinova – Brunswick, GA
- The first Department of Defense base to undertake a forest carbon sequestration project at 148,539 acres – Fort Benning – Columbus, GA

In 2013, for the 4<sup>th</sup> consecutive year, Georgia exports reached a record level. More than 14,500 Georgia companies exported \$37.6 billion in goods and services to 230 countries in 2013. Georgia is the 11<sup>th</sup> largest exporting state based on dollar value of exports. Georgia's top five export markets in 2013 were Canada, China, Mexico, United Kingdom and Japan. Specific forest industry export data for 2013 includes the following:

- Georgia's paper industry exports grew by 21%, an increase of more than \$311 million over 2012.
- Georgia led the nation in the export of woodpulp and kraft paper/paperboard.
- Georgia ranks 6<sup>th</sup> in the U.S. for wood product exports valued at over \$404 million, a 6% increase over 2012. Georgia's top 5 export markets for wood products are: China, United Kingdom, Netherlands, Turkey, and Belgium.
- Georgia ranks #1 in U.S. exports of wood pellets to the world valued at over \$128 million and representing a 46% increase over 2012. Georgia's top 5 export markets for wood pellets are: United Kingdom, Belgium, Denmark, Italy, and the Netherlands.



# Reforestation

The Reforestation Department has been through many changes this past fiscal year. Russ Pohl, who was at the helm of our department for many years, retired January 2014. We certainly wish Russ the best in all of his new endeavors. His position was replaced by Jeff Fields, who left the Nursery Coordinator position vacant at Flint River Nursery. Russell Ayres stepped up to take this position and has done a fine job at it. However, this left a vacancy at the seed extractory that, as of now has not been filled. Plans to fill that vacancy are in the works. During this time of transition every professional in our department has put forth extra effort to continue producing the highest quality seedlings and seed possible. Here are our accomplishments as a department by program area.

## TREE IMPROVEMENT

There were 63 controlled pollinations made for 4<sup>th</sup> cycle breeding efforts at Flint River and at Arrowhead

- There were 4 pine progeny tests measured, 3 Loblolly and 1 Slash.
- There were 2 Loblolly pine progeny test planted at Flint River Reforestation Complex.
- 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.
- A tree improvement short course was completed by Jeff Fields and Russell Ayres, put on by the NCSU Tree Improvement Cooperative.
- Jeff Fields served on advisory committees to both the NCSU Tree Improvement Cooperative and the University of Florida Slash Pine Cooperative.

Overall the Tree Improvement Program continues to be a success, and an asset to the GFC and landowners across the Southeast. Latest figures that were supported by the NC state Co-op continue to show the present value of the Arrowhead breeding center, where all of the NC State Co-op's 4<sup>th</sup> cycle breeding efforts are taking place, to be \$483,000,000 south wide and \$113,000,000 in Georgia.

## SEED ORCHARDS

The 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 where 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 number 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 years to come.

Species	Bushels Collected	LBS Cleaned Seed
Loblolly P3	660	749
Loblolly P Top Clones	35	39
Loblolly P3 Select	190	204
Loblolly RR3	210	268
Loblolly RR3 Top Clones (GA Giants)	189	216
Shortleaf	9.50	3.10
Premium Slash	490	235
Select Premium Slash	140	68



In addition to these elite pines species that were collected and processed, we collected, processed and planted 10,585.25 pounds and/or gallons of hardwood seeds!

## **NURSERY**

The dedication and talent of a nursery program that continues to work hard every year to support a research program such as Tree Improvement and an orchard program that supplies some of the best seed in the business continues to amaze. This program is unparalleled by any other state nursery program in the south. The nursery program successfully distributed around 9.4 million seedlings reforesting over 16,000 acres and serving 3,444 customers.

Our program has successfully established a Longleaf Pine understory seed production area through a federal grant. In this area there are over 22 different species of native grasses and legumes that are currently producing seed for Longleaf pine understory restoration.

We also established a Longleaf Pine seedling seed orchard from improved families of Longleaf Pine. This orchard will be essential to the future production of improved Longleaf Pine in our nursery.

Production and sales are increasing in our program due to stronger demand and some contracts that are in our future. Stay tuned for more to come!



# Administration

<b>INCOME AND EXPENDITURES</b>			
	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>
<b>FUNDING SOURCE</b>			
FEDERAL FUNDS	6,499,288	7,663,165	6,652,525
FEDERAL STIMULUS	1,620,396	189,073	
OTHER FUNDS	10,203,942	7,849,673	7,266,675
STATE GENERAL FUNDS	28,714,926	29,987,021	30,456,519
GOVERNOR'S Emergency Funds	1,084,862		
FEMA-FIRE MANAGEMENT GRANT	1,096,805	1,426,716	4,646
PRIOR YEAR INVENTORY			
<b>TOTAL FUNDS</b>	<b>49,220,219</b>	<b>47,115,648</b>	<b>44,380,365</b>
<b>EXPENDITURES BY OBJECT CLASS</b>			
TOTAL PERSONAL SERVICES	33,146,970	31,184,785	30,619,711
TOTAL REGULAR OPERATING EXPENSES	7,878,928	8,009,164	8,687,455
TRAVEL	208,340	285,651	310,013
MOTOR VEHICLE EQUIPMENT PURCHASES	204,717	579,104	402,285
EQUIPMENT PURCHASES	394,824	713,014	469,427
COMPUTER CHARGES	1,328,358	1,569,755	1,329,409
REAL ESTATE RENTALS	20,563	26,320	32,668
TELECOMMUNICATIONS	579,265	655,289	691,432
CAPITAL OUTLAY	334,317	0	45,888
PER DIEM & FEES	0	0	
CONTRACTS	5,045,829	3,032,566	1,523,218
WARE COUNTY TAX - RD. MAINT.	60,000	60,000	60,000
WARE COUNTY TAX - S. FOREST			
<b>TOTAL EXPENDITURES</b>	<b>49,202,110</b>	<b>46,115,648</b>	<b>44,171,506</b>
<b>EXPENDITURES BY PROGRAM</b>			
REFORESTATION	1,247,751	1,202,909	1,227,022
PROTECTION	35,991,992	33,414,371	32,381,568
MANAGEMENT	8,318,841	8,007,384	7,122,100
GENERAL ADMINISTRATION AND SUPPORT	3,644,526	3,490,983	3,440,816
<b>BONDS</b>			
EQUIPMENT BONDS	3,363,765	5,551,949	3,712,729
CAPITAL OUTLAY BONDS	1,758,061	1,909,129	1,012,545
NUMBER OF EMPLOYEES	676	670	678

GEORGIA FORESTRY  
COMMISSION



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