

GEORGIA FORESTRY
COMMISSION



2008 Annual Report



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Robert D. Farris, Director

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Forest Management

Forestry-related technical information and assistance is provided to Georgia's private forest landowners by the Forest Management Department to enhance their woodlands for economical, social, and environmental benefits.

RURAL FORESTRY ASSISTANCE

Rural forestry assistance promotes healthy, vigorous forests that provide a renewable and dependable source of forest products for the state's economy. This assistance includes management advice, brief plans, Tree Farm inspections, harvesting advice, and timber marking. Georgia Forestry Commission (GFC) foresters provided the following assistance:

- 2,480 advice cases on 205,889 acres
- 954 brief plans on 61,796 acres
- 43 Tree Farm inspections on 12,552 acres
- 86 harvesting advice on 5,611 acres
- 7 timber marking cases on 173 acres

In summary, during FY2008 GFC provided technical forest management assistance to 3,570 landowners managing 286,021 acres.

FOREST STEWARDSHIP PROGRAM (FSP)

The Stewardship Program completed its 17th year with a cumulative enrollment of 6,413 landowners covering 1,083,608 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, water, scenic, and recreational resources – making specific recommendations on how these resources can be best managed. A total of 146 plans covering 56,511 acres were written in FY2008 by GFC Foresters.

The unique cooperation between the public and private sectors continued and strengthened this year as consulting and industry foresters provided 181 plans on 46,123 acres for their clients.

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. The state total of those receiving this honor has risen to 291 Certified Stewards managing a total of 212,265 acres.

Forest Stewardship Program Accomplishments - 2008:

- Enabled 14 landowners to plant 607 acres of longleaf pine under the Partners for Fish & Wildlife Program (a partnership with U.S. Fish and Wildlife Service, GFC, and the Longleaf Alliance)
- Held the GROWS (Georgia Recognizes Our Woodland Stewards) Landowners Conference at Callaway Gardens with tremendous success.
- Provided assistance to the Georgia Envirothon and Regional FFA Field Days.
- Strengthened a partnership with the National Wild Turkey Federation (NWTF) by developing several Stewardship Field days, a seed subsidy program, and the creation of a promotional video on stewardship.
- Created over 500 acres of habitat improvement on Georgia forest land through the seed subsidy program, which cost-shared over 20,000 pounds of seed.
- Enhanced the partnership with the Quality Deer Management Association (QDMA) including field days and participation on several TV show episodes.

- Developed web page for Stewardship & GROWS where landowners can obtain information.
- Created new displays for meetings and other public events with new partners.
- Sponsored a graduate student to develop a protocol for recreational components within stewardship management plans and other requests for technical assistance.

This year marked the first round of competitive grant proposals through the U.S. Forest Service. Georgia was awarded several grants, but the two most relevant to the Stewardship Program are the Central Georgia Strategic Outreach Initiative and the Southern Regional Marketing Grant. Both grants are described below.

Central Georgia Strategic Outreach Initiative:

The Central Georgia Strategic Outreach Initiative is designed to model a new way of accomplishing landscape scale conservation of forests within a specified geographical area to meet the multiple values and benefits of sustaining intact working forest landscapes. The basic idea is to partner with nongovernmental organizations (NGO's) and other partners to target landowners within the specified focus area. Each partner can bring their unique values and outreach resources to provide landowners with the full complement of information, services and tools available to affect sustainable forestry. This project will rely heavily on NGO partners who have a strong presence in the upper Ocmulgee and Oconee River watersheds with many landowner relationships and contacts. Efforts will include a cooperative among landowners where multiple-use management plans will be developed to address the overall landscape management objectives, while meeting the individual landowner's specific needs and interests. Field days and special events will be held to relay information to landowners. Important measures of accomplishments will be recognizing landowners as Certified Stewards, and recognition of efforts to implement forest health practices. The combination of conservation easements and contiguous lands dedicated to multiple-resource management will result in a positive impact on forests in the region. Staff will be dedicated full time to the development and implementation of the focused effort.

Southern Regional Marketing Grant:

The intent of this grant is to leverage the outreach capacity of certain conservation partners to deliver good land management practices and principals to private forest landowners throughout the Southern region. More specifically, the sponsorship of TV shows like the "Quality Whitetail" show produced by the QDMA and the "Get in the Game" show produced by the NWTf are examples where specific management practices are highlighted that enhance the awareness of good land stewardship. In addition, magazine articles and sponsorship of national conventions will inform forest landowners of services available through the Southern Group of State Foresters.

COST SHARE INCENTIVE PROGRAMS

GFC is the technical agency responsible for determining specifications necessary for landowners to install a range of forest practices under three different cost-share incentive programs administered by the Farm Services Agency (FSA). An additional program, introduced in 1992, is administered by GFC with assistance from FSA, Natural Resources Conservation Service (NRCS), Georgia Department of Natural Resources, and U. S. Forest Service.

The incentive programs include:

Forest Land Enhancement Program (FLEP) – FLEP, created within the 2002 Farm Bill, is a cost-share program providing incentives to landowners for implementing multiple-use practices on their forestland. The GFC provided technical assistance to 35 landowners, preparing plans on 3,887 acres. Cost-share assistance through FLEP was provided to 128 landowners on 13,883 acres.

FLEP was eliminated with the 2007 Farm Bill and will no longer be funded.

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 foresters provided technical assistance in preparing 1,089 tree planting plans covering 40,952 acres. Assistance was provided on 1,630

performance inspections for practice completion covering 67,020 acres.

Environmental Quality Incentives Program (EQIP) – The Georgia Forestry Commission also assists the NRCS in implementing the EQIP forestry practices. Assistance was provided on 75 initial prescription plans covering 12,851 acres. There were 20 practice performance inspections completed covering 2,562 acres.

Southern Pine Beetle Prevention & Restoration Program (SPBPR) - The U.S. Forest Service has provided federal grants in this program area in the amounts of \$500,000, \$800,000, \$1,000,000, \$1,950,000, \$1,500,000 and \$1,200,000 for the years 2003 - 2008, respectively. These grants were primarily utilized for direct cost-share payments to Georgia landowners to implement several prevention practices to treat high risk stands, and for several restoration practices.

Of these grants totaling \$6.95 million, \$4.32 million has been obligated toward direct landowner payments under cost-share practices. These practices total 149,812 acres which have been approved for treatment.

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. This streamlined process has been favorably accepted and minimizes the bureaucracy that landowners face with many federal cost-share programs.

REGENERATION

Georgia planted 221,162 acres with hardwood and pine seedlings during the 2007-2008 planting season. This included 160,377 acres on private lands, 59,256 acres on forest industry lands, and 1,529 acres on government lands. Georgia has led the South in tree planting for the past 20 years. GFC maintains a list of recommended site preparation, tree planting, and herbicide vendors for landowners seeking those services. This list can be found at the GFC website gatrees.org.

FOREST HEALTH

The Forest Health Unit provided statewide leadership and guidance to consulting, industry, and GFC foresters and other natural resource managers on a wide range of forest health-related issues. GFC foresters incorporated insect and/or disease advice on 1,785 management plans involving 118,601 acres for the year. Statewide, forest health training was provided to foresters, resource managers, loggers, public works departments (state and county), nurserymen and regulatory officials, landowners and field day participants on 116 occasions (7,995 attendees) involving most of the program areas listed in this report.

Special notes of interest:

- *Annosum Root Disease Outbreak*: Widespread damage in recently thinned slash and loblolly pine plantations was first detected in 2005, and the disease continues to cause damage with new sites reported in 2008. The primary region with the highest incidence and most severe mortality is a zone from Augusta to Columbus and south for about 75 miles (correlating to the sandhills and upper coastal plain regions). Assistance was given to Dr. Sara Covert, a University of Georgia (UGA) forest geneticist, with her ongoing genotype investigations of *Phloebiopsis gigantea* as a suppression tool to combat annosum. UGA had been relying on MeadWestvaco to provide sites, but since much of their land has been sold, GFC helped locate private sites suitable for the ongoing research. The principal reason for this disease outbreak is thought to be a combination of the extremely high number of acres that have been thinned over the past 5-7 years in this region and the wetter summers of 2004-05, which created ideal conditions for Annosum infection. Several counties with the highest number of Annosum infections had in excess of 25,000 acres planted during the 1986-89 CRP period.
- The Forest Health Coordinator and four regional specialists responded to 172 forest industry / consultant / GFC forester requests requiring field visits throughout the state. Annosum root rot, pine bark beetles, and drought-related

damage were to blame in the many of these inspections.

- *Red Oak Decline* continued to cause problems throughout most of the state by late summer of 2008. The ongoing drought is to blame for most of this decline.
- *Pine Beetle Aerial Survey*: Minimal pine bark beetle activity was detected by ground and aerial surveys in 2008. Ips and black turpentine beetles caused many smaller spots in drought-stressed stands and a few southern pine beetles were detected by late summer, but 2008 will be classified as a minimal year for damage.
- GFC foresters conducted the southern pine beetle pheromone-trapping program – 20 counties were trapped in 2008. Baldwin County projected moderate southern pine beetle problems for the year but this was not revealed during the survey.
- *Wildfire Damage*: The largest single wildfire in the history of the southeastern U.S. occurred in Georgia and Florida between April 16th and early July, 2007. The Georgia portion of this wildfire burned 441,705 acres with a high percentage of this total contained in the Okefenokee National Wildlife Refuge. Approximately 80,000 acres of upland stands near Waycross burned. An evaluation of this area was made for Ips beetle activity but this survey revealed minimal widespread bark beetle damage. Most of the mortality within six months after the fire is a direct result of fire damage. The GFC forest health staff planned and executed three outreach landowner meetings (Jesup, Waycross and Statesboro) in the aftermath of these wildfires.
- *Website*: The GFC's forest health web information continues to provide up-to-date information: www.gatrees.org/ForestManagement/ForestHealth.cfm

Hemlock Woolly Adelgid

A survey for the hemlock woolly adelgid (HWA) was conducted for a sixth year. One temporary employee worked on this survey, concentrating on the western front of the spread. HWA continues to spread at a rapid pace and is now found well into Gilmer and Fannin Counties. The counties with HWA include Rabun, Towns, Union, White,

Habersham, Stephens, Lumpkin, Fannin and Gilmer.

The GFC continued to assist the UGA predator beetle rearing lab by supplying infested branch material. GFC survey employees were used to scout for suitable collection sites, and loads of infested branches were delivered as needed from December through early June. GFC also served as a site locator for the release of predator beetles raised by Georgia labs and the Clemson University lab.

The GFC continued to work with the Georgia Department of Natural Resources (DNR) to help survey and protect hemlocks on state lands. This partnership continued regarding the treatment of hemlocks using pesticides, and a supply of pesticide was given to DNR to help continue treating the many affected trees. The fruits of this effort were great with 1,070 trees (total diameter of 12,707 inches) treated in 2008. The GFC has been directly involved in the selection of predator beetle release sites and the actual releases on DNR lands.

The GFC assisted numerous cities, communities, homeowner associations and individuals regarding HWA. Public awareness of the kioritz injectors available at GFC offices in Habersham, Union, Lumpkin and Fannin Counties has increased. Most counties reported frequent use of the tool with some counties having a waiting list. At least 13 presentations were made to the public on HWA. GFC public website postings were added and updated in an effort to relay current information.

Invasive Weeds

Although many invasive plants cause problems in Georgia, most of GFC's efforts have focused on cogongrass and Chinese privet. Georgia's "Cogongrass Task Force" continues its mission to address the threat this plant presents to the environment. Training has been given to resource professionals throughout the state, and an educational campaign is underway to help landowners identify the plant. Once landowners find suspect plants, they notify the GFC to verify the identification, and if confirmed the site is treated by the GFC. All known cogongrass infested sites

are being treated by either the GFC, Animal and Plant Health Inspection Service, or in a few cases the landowners.

The GFC spearheaded an effort to bring all concerned groups and agencies into this umbrella for detecting cogongrass. A total of 23 state, federal and private partners signed an agreement to establish the entire state of Georgia as a Cooperative Weed Management Area for cogongrass. The combined efforts of this group should have far reaching impacts, helping educate the public about cogongrass as well as helping locate all infested sites. All information regarding this noxious weed has been assembled at www.cogongrass.org.

Through an ongoing grant with the U.S. Forest Service, the GFC continues to treat the majority of cogongrass sites with herbicide at no cost to landowners. This noxious weed has now been found in 28 Georgia counties, involving over 215 sites.

The forest health staff has also begun a widespread effort to test various herbicides, timing and rates to eradicate Chinese privet, which is probably the most widespread and harmful non-native invasive plant in Georgia's forests. Field trials will continue for at least one more year before results and recommendations are published.

Sudden Oak Death

The sudden oak death monitoring program continued through 2008. Ten sites were chosen in northeast Georgia to detect the presence of the pathogen to blame for west coast tree mortality (*P. ramorum*). Stream-baiting sites targeted watersheds near the positive nursery locations in the metro Atlanta area, with the belief that many plants that were sold and planted locally could be causing further *P. ramorum* infections in the landscape undetected. All stream-baiting samples were negative.

Exotic Wood Borer / Bark Beetle Survey

The GFC surveys approximately 100+ warehouse locations that import cargo using Solid Wood Packing Material (SWPM) from foreign countries. Each location is checked monthly (May-September)

bringing the number of inspections to around 500 for the season. Insects found within these sites are identified and appropriate action is taken by the U.S. Department of Agriculture if warranted.

Sirex Woodwasp

The sirex woodwasp poses a threat to all of Georgia's southern yellow pines. Fifty insect traps were deployed throughout the state from May through November to detect any *Sirex noctillio* that might be present. These traps are checked twice each month and any suspect siricids are screened for identification by the forest health staff. No *Sirex noctillio* have been caught thus far.

The GFC forest health staff continues to partner with researchers at UGA and Cornell University in their quest for additional biology on the native woodwasps, and for suppression techniques that could be used in the event this non-native insect invades Georgia. Huge losses of both loblolly and slash pine have occurred on other continents due to this insect.

Light Brown Apple Moth

The light brown apple moth (LBAM) was confirmed in California in March 2007, and it has a host range of 120+ plants and trees. Many of the favored host trees are native to Georgia. Thirty traps were deployed throughout the state in stands with preferred host trees through a partnership with a larger trapping program coordinated by the Georgia Department of Agriculture. Trapping occurs from July-November in efforts to detect any LBAM that might be present in Georgia. The traps were checked every two weeks, but no LBAM were found.

Emerald Ash Borer

The emerald ash borer (EAB) has devastated ash trees in the northeastern U.S. and could have significant impacts in Georgia if it is introduced and becomes established. Seventy-five traps specific for this insect were deployed throughout the state from June-October to detect any EAB that might be present in Georgia. The traps were checked once a month for any suspect EAB, but none were caught in Georgia through these trapping efforts.

Redbay Ambrosia Beetle/Laurel Wilt Disease

Laurel wilt disease (LWD), caused by the fungus *Raffaelea lauricola*, is a new disease of plants in the Lauraceae family in the United States. Vectored by an introduced Asian ambrosia beetle, *Xyleborus glabratus*, this disease has spread rapidly through the abundant redbay in the maritime and coastal plain forests northward in South Carolina and south well into Florida, killing most of the large redbay (*Persia borbonia*) trees in its path. Other plants in the laurel family known to be susceptible to varying degrees include: camphor tree (*Cinnamomum camphora*), sassafras (*Sassafras albidum*), avocado (*Persea americana*), pondspice (*Litsea aestivalis*), and pondberry (*Lindera melissifolia*).

Laurel wilt disease continues moving rapidly across Southeast Georgia. To date 21 counties are confirmed for Laurel Wilt Disease, with three new counties (Toombs, Ware, and Clinch) added during the 2008 Laurel Wilt Survey. The majority of the reports of LWD come from redbay, but sassafras infestations are being more frequently reported in Bulloch and Screven Counties. Currently LWD has been documented on sassafras in Liberty, McIntosh, Effingham, Bulloch, Screven, and Evans Counties.

Research has still produced no viable, large scale protection from LWD. There is no mechanical or chemical treatment that can be used to slow or stop the spread of the Redbay Ambrosia Beetle or the associated fungus *Raffaelea lauricola*. The Georgia Forestry Commission maintains a working relationship with the U.S. Forest Service, Georgia Southern University, the University of Georgia, and many other partners to document the spread, study the biology, and possibly find a solution to this non-native invasive insect. More info on LWD can be found at www.gatrees.org/ForestManagement/LaurelWilt.cfm.

FOREST WATER QUALITY

The Georgia Forestry Commission has a contract with the Georgia Department of Natural Resources Environmental Protection Division (GAEPD) to coordinate the state's forestry water quality program. The major responsibilities

include Best Management Practices (BMP) education in an effort to minimize erosion and sedimentation from all silvicultural practices, complaint investigation and remediation, and BMP monitoring. The Commission's program, managed with four full-time regional water quality forester positions and six part-time district water quality forester positions, works statewide to help keep Georgia's waters clean during forestry operations.

During the year, 110 BMP talks were given to over 2,595 people. Four of the talks were presented to 144 new loggers and foresters participating in the Forest Resources Association sponsored Sustainable Forestry Initiative's (SFI) Master Timber Harvesters' Program (MTH). Participants are able to interact with various experts speaking on the sustainable forestry initiative, silviculture, wildlife habitat, endangered species, wetlands, water quality, harvest planning, business management, OSHA rules, workers' compensation, and safety management.

In order to deliver wood to SFI participating mills, MTH participants are required to complete 12 hours of continuing logger education classes every two years. Four of the hours must be environmental and can include BMP field trips. The GFC provided BMP talks to the following groups:

- 46 talks to 1,251 people at continuing logger education classes
- 3 talks to 65 people at forest industry workshops
- 1 talk to 98 forest landowners
- 56 talks to 1,040 people at various other state or local government meetings

Topics focused on identifying stream types and floodplain features, determining streamside management zone widths, proper stream crossings, and proper road building techniques.

The GFC maintains a list of MTH timber buyers who have completed this training on its web site and a link to the UGA MTH list of all participants. The BMP manual is also on the web site.

The department received 94 documented water quality complaints related to forestry practices during the year. Approximately 168 site visits were made by GFC district water quality foresters to investigate and mediate those complaints. Forty-two complaints have been resolved and thirteen have been turned over to the regulatory authorities. The remainder are in the process of being resolved.

GFC district water quality foresters made approximately 126 BMP pre-harvest advice site visits.

Sample timber sale contracts and invitations to bid, which include specific BMP language, are available at all GFC offices.

In an effort to determine if our educational efforts are effective, the GFC conducts a statewide BMP implementation survey every other year. The sites are selected to meet a stratified random sample which is based on the volume of wood harvested by county and the number of acres treated by the different ownerships (non-industrial private, forest industry and public lands). The sites have to experience forestry activities within the past two years, preferably within the last six months. Sites cover all geographic regions of the state. The GFC completed the 2007 BMP survey on 370 sites. Overall BMP implementation was 91.8% and the number of acres evaluated that were in compliance with BMPs was 99.7%.

The GFC plows approximately 30,000 miles of firebreaks annually. The potential for erosion and stream sedimentation could be great if BMPs are not installed properly. Violations of water quality standards (sediment) could subject landowners to hefty fines by GAEPD. Therefore, the GFC has an aggressive implementation and evaluation policy to ensure firebreaks are in compliance with BMPs. During the year, GFC personnel evaluated approximately 5,350 miles of pre-suppression and wildfire firebreaks on 2,074 sites for BMPs. Overall BMP implementation was 78% with 83% of the miles in compliance. Results indicate that more BMP water bars are needed to reduce erosion impacts.

In its 2006 biennial report, the GAEPD identified 901 water quality impaired stream segments totaling over 6,983 miles. The U.S. Environmental Protection Agency (USEPA) identified an additional 41 segments in the state. Georgia is under a federal court consent order that requires well over 1,100 Total Maximum Daily Load (TMDL) limits for various pollutants to be developed in order to improve conditions in these streams. It has been estimated that the fish communities (biota) in 286 of these segments are impaired due to sediment inputs attributed to nonpoint sources of pollution, which includes silvicultural operations. An additional 126 segments are impaired because of low dissolved oxygen levels attributed to nonpoint sources of pollution as well.

The GAEPD has contracted with many of the Regional Development Councils to write TMDL Implementation Plans to meet the TMDL requirements and is expecting the GFC to assist in the development of the forestry component for those plans. According to the federal requirements and proposals, there has to be "reasonable assurance" that BMPs will be implemented in order to meet the TMDL requirements. This could involve permits, written silvicultural plans, plan reviews, performance bonds, or BMP monitoring of every forestry operation within the watershed of a listed stream for a period of 5 years or until the stream is evaluated again during the next GAEPD River Basin monitoring cycle, after which it is either deleted or kept on the list for another five years.

The GFC developed a forestry action template with the endorsement of the Georgia Forestry Association's Environmental Committee. In the plan, the GFC proposed to conduct monthly BMP assurance monitoring of active forestry operations instead of the permit, harvest plan, performance bond, and review process. Once the plan is developed, it must be submitted to the USEPA and put out for public comment. Afterward the plan must be approved by the federal court and if approved becomes a part of the federal consent order.

Starting January 2003, the GFC began conducting a statewide BMP Assurance Monitoring Project

targeting 63 sediment-impaired TMDL watersheds identified by GAEPD as needing sediment reductions. Active sites are identified by air, on the ground observations, county records, and by requests. Logger, timber buyer, landowner, and receiving mill(s) information are identified. With landowner permission, GFC personnel conduct an initial BMP audit to provide any needed advice to prevent problems. A final examination is conducted once the operation is completed.

During FY2008, there were 497 examinations made, of which 414 involved timber harvesting operations and 83 involved site preparation or other timber management operations. Comparing the results from the initial and the final harvest exams for timber harvesting indicate that a 6.5% increase in BMP implementation was achieved in the final inspection. The number of water quality risks identified dropped from 84 to 11 or 87%. This clearly demonstrates a pro-active approach of providing "reasonable assurance" that BMPs are being implemented and that water quality is being protected through the services of the GFC.

The GFC has been involved in the Governor's Comprehensive Water Plan Study Committee and Director Robert Farris is a member of the State Water Council. The plan will address water quantity and quality issues.

STATE LANDS ASSISTANCE

Many state agencies request GFC assistance each year coordinating timber sales from their lands. GFC is charged by law to handle such sales, which involve timber cruising to determine wood volumes, timber marking, advertising, sending out bid invitations, conducting bid openings, negotiating terms, and awarding contracts to successful bidders.

In FY2008, there were 34 timber sales on other state agency lands all with a total value of \$3,487,000 to the state.

STATE FOREST LAND MANAGEMENT

GFC owns or manages several properties in the state. These lands incorporate forest stewardship

(multiple resources) management, including forest products, wildlife, recreation, soil and water conservation, aesthetics, historical and cultural resources. Forest Stewardship Plans on these lands detail various activities benefiting the state and general public economically, socially, and environmentally. The properties include:

Dixon Memorial State Forest - The largest of GFC holdings (35,708 acres), the Dixon Memorial State Forest is located near Waycross, Georgia. It is a bio-diverse forest including approximately 15,000 acres of the Okefenokee Swamp. Dixon has been managed by the GFC since 1955, following an earlier "Swamp Fire". This year Dixon State Forest began recovery of the largest wildfire in Georgia's history. Over 19,000 acres of state forest land was consumed by this wildfire, of which 4,802 acres was in commercial pine timber. This was only a small part of the "2007 Georgia Bay Complex Fire" that burned over 441,705 acres in Ware and surrounding counties. Accomplishments for FY2008 include 8 emergency timber sales on 4,725.05 acres of planted and natural pine, harvesting a total of 130,574.98 tons of pine timber (including chips, pulpwood, chip'n'saw, sawlogs, and poles) for a total of \$855,233.81. Timber stand improvement thinnings were conducted on 4 stands of planted pines totaling 508.93 acres. These thinnings totaled 20,058.05 tons of pine timber (including pulpwood and chip'n'saw) and generated approximately \$194,994.48 revenue. Other accomplishments include 2,037.99 acres of site preparation and 1,033.04 acres of tree planting, 24.5 miles of firebreak maintenance; 234.48 miles of road and ditch maintenance, and over 220 acres of prescribed burns. Revenues received through the sale of various forest products at Dixon totaled \$1,063,923.50. Expenses amounted to \$335,023.15, resulting in approximately \$728,900.40 net revenues.

The Herty Building at Dixon Memorial State Forest hosted over 725 persons attending a total of 21 meetings, including Logger Workshops, Natural Resources Meetings, and educational training programs by the Department of Transportation and the Georgia Forestry Commission.

Dawson Forest - Dawson Forest, a 10,130 acre forest located in Dawson County, is owned by the City of Atlanta and managed by GFC. Forest management activities for FY2008 included 30 acres of site preparation and tree planting; 20 acres of timber stand improvement and three stands totaling 49 acres of prescribed burning. Timber harvest included one select timber harvest involving 86 acres. Timber income was \$19,974.72 while trail income totaled \$19,747 for the year. Maintenance and construction of access facilities included 15 miles of road grading, 880 tons of gravel applied to 7 miles of primary access road, herbicide treatment on 11 miles of forest roads, installation of 42 signs, 18 miles of roadside mowing and 5 miles of road bank clearing. The entire road system (28 miles) was traveled and cleared of downed trees as needed throughout the year. Herbicides were applied as spot treatments across a large portion of the property for the control of Autumn Olive, Privet and unwanted vegetation along access roads.

The Dawson Forest and staff was host to four organized trail rides, six Boy Scout campout events, one Forest Management/Bio-energy field day for a total of 460 persons attending. Over 780 pieces of literature were distributed in FY2008. The recreational trail program, a cooperative effort of Georgia DNR Wildlife Resources and the GFC, provided 28 miles of horse and bicycle trails for public use during the year. An estimated 3,159 persons used the trail system during the period. There were also an estimated 4,460 hunters, fishermen and birdwatchers that used the Forest during the period. Three sections of the trail system (4.6 miles) were re-graded and enhanced using the GFC dozer.

Various training programs were conducted on Dawson Forest during the period. These programs included one hand-line construction/wildfire training course involving GFC and local Fire Departments, two water quality trainings, one prescribed burn training with GFC and Volunteer Firemen, two Georgia Civil Air Patrol Search and Rescue programs and three local law enforcement search dog trainings.

Inspection of the security fences around the secure areas, including the "hot cell" and "cooling area" was done thirty-two times. Repairs were made to the fences five times and the access tunnel leading to the underground reactor control room was re-covered with soil three times during the period. Numerous tires and dumped debris were collected and properly disposed by the Dawson Forest Staff.

The area made national news in early 2008 during the extensive search for hiker Meredith Emerson. Tragically, Meredith was found murdered on Dawson Forest in January.

Paulding Forest - The 9,838 acre Paulding Forest in Paulding County is also owned by the City of Atlanta, but managed by GFC. The area was reduced by 162 acres during the year due to land sold to Paulding County for the county airport project. Forest management activities for FY2008 included one total timber harvest for 45 acres (\$76,802) and one 63-acre tract evaluated and boundaries marked for selective thinning. Twenty additional stands involving 890 acres were evaluated for management needs. A seedling survival survey was performed on 15 acres of piedmont longleaf pine that revealed a survival rate of 475 trees per acre. Boundary delineation on four sections of land comprising 3.4 miles was completed by Woodall and Associates Inc. The Dawson Forest Staff permanently marked the boundaries using paint and signage.

Access/Maintenance included grading 1.7 miles on two access roads, replacing one gate, and applying 342 tons of gravel to one mile of forest road. Two trash details were completed during the year to remove various materials from the property. Other related activities included several informal meetings with Georgia DNR to evaluate and discuss land trespass, dumping and other law enforcement issues. All gates and locks were evaluated for maintenance and/or replacement needs in March, 2008. Due to extreme weather conditions and a countywide burn ban through much of the burning season, no prescribed burns were conducted during the year.

There were an estimated 2,226 users of the City of Atlanta portion of Paulding Forest during the year by non-fee related visitors (hikers, hunters, fisherman and bird watchers.) An estimated 400 pieces of literature were distributed during FY2008 with an estimated 30 emails and 20 phones calls concerning use and access of the property.

GEORGIA'S FOREST INVENTORY & ANALYSIS PROGRAM (FIA)

During FY2008, the Forest Inventory and Analysis Program (FIA) in Georgia measured or re-measured 1,321 forested and non-forested plots. These plots were collected by six certified full time crews strategically located across the state. Each crew is made up of 2 FIA Foresters.

Of the 1,321 plots, 77 were Forest Health Monitoring Plots (P3 plots.) P3 plots take approximately twice as long to complete data collection than a regular plot, since there is much more forest health indicator data to collect than on a regular plot and the P3 plots are widely dispersed across the state.

A certain percentage of FIA plots completed are rechecked 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 FY2008 of 97.13% for all of the plots that were checked. In Georgia, 129 plots were checked for accuracy during the fiscal year by the USFS Quality Assurance Foresters. Georgia ranks in the top two in accuracy and is often first among the southern states.

FIA data collection is broken up into cycles and panels. 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 panels. Each panel consists of approximately 20% of the total number of plots. Each panel should take about 1 year to complete.

- Georgia began Cycle 9 in late October, 2004 with panel 2.
- Georgia's Cycle 9, panel 3 data collection was completed August 28, 2006.

- Collection of the Cycle 9, panel 4 data was completed August 28, 2007.
- Cycle 9, panel 5 was completed in August, 2008.

Georgia's data collection is three months ahead over the full cycle of data collection, which should be completed well within the 5-year goal. Georgia has one more panel (panel 1) in Cycle 9 after panel 5 is complete.

During FY2008, the decision was made not to fill vacated FIA positions and to operate with six two-man crews instead of seven. This decision resulted from reductions in the Federal FIA Grant of \$70,000 over two years. The Federal portion of the grant was reduced from \$586,000 to \$515,000, and more cuts may be in the FY2009 budget.



Forest Protection

Georgia lost over 5,800 acres to woods arson last year, accounting for approximately 15% of the total number of fires.

This year, Senate Bill 400 by Senator Ross Tolleson, R-Perry, amended existing law to allow Georgia Forestry Commission P.O.S.T. Certified Investigators to issue citations or tickets for misdemeanor offenses of burning without permits. Georgia Code as previously written allowed only for the physical arrest of offenders, which more often than not hindered law enforcement.

Legislation also amended arson laws to include a new offense – Arson of Lands. A person is guilty of this offense if the person, *with the intent to damage*, starts a fire in any woodlands, brush or field that he does not own or for which he does not have the owner's permission. A person who commits this offense will be guilty of arson of lands in the third degree. A person who is guilty of arson of lands that results in a fire that burns more than 5 acres will be guilty of arson of lands in the second degree. Arson of lands in the first degree is committed by anyone who starts a fire when it was reasonably foreseeable that human life might be endangered. This offense carries a penalty of imprisonment for up to 20 years and a fine of \$50,000 or both.

COUNTY AND DISTRICT OFFICE OPERATIONS

The strength of the Georgia Forestry Commission Forest Protection Program is the focused operations of 10 district offices and 131 county units. Response to wildfires, issuing burn permits, presuppression firebreak plowing, professional burning assistance, fire prevention programs, training, records and reports, surveys, local community assistance (all aspects of Forest

Protection) depend on this network of offices and employees for services provided statewide.

Firebreak plowing is the most popular landowner service provided by Forest Protection. During 2008, forest rangers serviced 6,596 requests, installing an estimated 37,780 miles of presuppression firebreaks.

Online Permits, which began in 2004, allows homeowners to receive permits via the Internet for burning small piles of yard debris. The Georgia Forestry Commission highly promotes the use of the internet to obtain permits to help alleviate more than 259,000 telephone requests for such burning. During FY2008, 44,583 Georgians received permits online.

There were 587,368 burning permits issued in Georgia during 2008.

WILDFIRE PREVENTION

Coming off the worst fire season in recorded history GFC fire prevention messages carried extra weight. The Wildfire Prevention effort in Georgia is coordinated through 10 district offices, 131 county offices, and Macon Headquarters. Wildfire prevention is a key component of Georgia's Fire Program. GFC's State budget is complimented significantly with monies available from the National Fire Plan Grant Program.

The GFC's main prevention program in the field continued through the use of grant funds to purchase Smokey Bear and Georgia Forestry Commission created material with specific fire prevention messages. These materials are utilized in school programs, fairs, and festivals. Fire prevention efforts are presented in programs and events

across the state including the Georgia Mountain Fair, Moultrie Sunbelt Expo, the Buck-a-Rama/Fish-a-Rama and Turkey-Rama, and the Georgia National Fair at Perry. Prevention messages are also developed for fire prevention signs, displays, brochures, and news advertisements.

GFC offices again used National Fire Plan funding to target the top 32 counties in Georgia having the most wildfires. These counties each have an average of more than 90 wildfires per year. An aggressive Fire Prevention Campaign targeting the root cause of wildfires continued. Each county is able to target the situation and analyze prevention strategies that best address their individual problem areas. The counties purchase fire prevention advertising in the form of billboards, news articles, ads, and fire prevention literature for programs aimed at the adult audience.

Audiences of some of Georgia's major sporting events were targeted with a full page ad in the University of Georgia and Georgia Institute of Technology football programs and a banner on their sports program web sites. The GFC collaborated with the Warner Robins American Little League World Champions to assist in a Fire Prevention message. A poster was created and distributed statewide to spread GFC's fire prevention message.

The Forest Protection Department participated in an educational Wildfire Campaign to inform the public of the dangers of wildfire through a program addressing the wildfire outbreaks of the 2007 wildfire season.

The grant includes funds to hire a Wildfire Prevention Coordinator to assist the counties and state in meeting their objectives and staying within budget.

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. Georgia uses a sophisticated National Fire Danger Rating System

(NFDRS) where 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 by the Forest Protection meteorologist daily and posted on the web at gatrees.org.

Valuable tools and information are available on the fire weather website for forest managers intending to conduct prescribed burning. These tools include weather maps, rainfall maps, drought maps, point-forecast system, and a prescribed fire climatology system. In fiscal year 2008, the daily lightning and rainfall map becomes a public product after approval from Bureau of Land Management (BLM) who supplies the lightning data.

Forecast NFDRS data for GFC's 19 weather stations are showing up on USFS Wildland Fire Assessment System (WFAS) maps at www.fs.fed.us/land/wfas/fd_cls_f.gif.

In FY08, the Camilla weather station was moved across the field to make way for the newly paved asphalt at the Camilla-Mitchell County Airport. Also, the McRae weather station was moved to the Telfair-Wheeler Airport for better site exposure.

The weather office completed a \$24,000 acquisition of 20 upgrade kits for the temperature/humidity sensors and fuel sticks for the 19 weather station networks. This upgrade is needed because the computer chip inside the sensors has been discontinued.

WILDFIRE ACTIVITY 2008

Georgia lost over 28,400 acres to wildfire in FY08, bringing the 10-year average acreage burned to 49,713 annually. Waycross District had the highest acreage burned with approximately 4,642 acres lost to 613 fires. Lightning was the number one cause and accounted for over 2,280 acres. Rome District had the second highest acreage burned, with approximately 3,422 acres lost to 608 wildfires. Incendiary causes contributed to over 1,486 of these acres. Statesboro District ranked third highest with approximately 3,334 acres lost to 562 fires. Lightning contributed to more than 1,878 of the acres burned.

Statewide, there were just over 6,200 fires. McRae District had over 1,091 wildfires this fiscal year with debris burning the cause of 411 fires and 1,316 acres lost. Escaped debris fires continue to be the number one cause of Georgia's wildfires, accounting for 38% of the total fires. Woods arson or incendiary causes were responsible for 950 wildfires or 15% of the total number of fires statewide.

AIR OPERATIONS

Forest Protection operates 23 single engine air patrol airplanes and two fire suppression helicopters. Air patrol provides added fire detection during periods of moderate to high fire danger. Also provided is support to rangers who need direction to wildfires or information the pilot can provide from above the fire scene. Air patrol was responsible for the initial detection of 523 wildfires in FY08. Suppression support and assistance to forest rangers from aircraft was provided on 615 wildfires. An additional 35,000 permitted burns were checked for safety by Forest Protection aircraft.

TYPE II INCIDENT MANAGEMENT TEAM

The GFC Type II Team, established in 2004, has worked many assignments and has grown with each incident they have been deployed to, and this year was no different. The Type II Team was invited to work on their first Western Wildfire deployment. The GFC Incident Management Team worked with the National Incident Management Organization (NIMO) East Zone Complex in McCall, Idaho. The complex consisted of three large fires, the Loon / Zena Fire and the Horton Fire. At the time of call, this was the largest wildfire complex in the western US. The Team was charged with protecting the communities of Sesesh and Warren, Idaho. Both communities were in the direct path of these fires. The Incident Management Team along with its assigned resources successfully defended the communities during their assignment. The team was again asked to assist the National Park System with a large fire that occurred on Georgia's own Cumberland Island National Seashore. The Team and its resources successfully extinguished the 2000+ acre wildfire and protected the estimated \$10 billion worth of natural resources.

GFC team members and other qualified employees responded to the aid of Texas and North Carolina wildfires. Georgia responded with 294 resources since the beginning of February 2008.

There are approximately 60 active members on the Team. The Team is growing with future plans to integrate other agencies into team membership, building a Multi-Agency All-Hazards Team for Georgia. Each year the Team builds on its experience and is making a good name for the Team and the State of Georgia.

PRESCRIBED FIRE

Prescribed fire (Rx fire) is a safe way to apply a natural process, ensure ecosystem health and reduce wildfire risk.

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 eradication of certain unwanted plant species. This year there were 1,398,856 acres treated with prescribed fire in Georgia. The Georgia Forestry Commission gave on-the-ground assistance with 140,527 of these acres, while also providing technical advice, weather forecasts, assistance in writing plans, and prescribed fire workshops for other customers across the state.

Often misunderstood by the general public, this age-old forest management practice requires support and promotion in today's increasingly urbanized Georgia environment. Forest Protection supports this practice with a Georgia Prescribed Fire Manager Certification Program. The program guarantees a basic level of knowledge and experience for those who practice prescribed burning. In FY 07-08 there were four certification sessions conducted certifying a total of 156 prescribed burn managers. Since inception of the certification program in 1993, 2,603 practitioners have been certified. In addition to the certification classes, the Prescribed Fire Manager assisted in coordinating the Okefenokee Prescribed Burn Project where approximately 6,000 acres were burned to help protect the valuable timber land

adjacent to the swamp. Other workshops and classes were conducted to help Georgia citizens understand the importance and use of Rx fire.

THE GEORGIA PRESCRIBED FIRE COUNCIL

The Georgia Prescribed Fire Council, formed in 2001, has been very active in promoting prescribed fire not only in Georgia but across the Nation and beyond. Last year the Georgia Council led the way in forming a National Coalition of Prescribed Fire Councils. As of now there are 21 states with councils as well as British Columbia. Fifteen other states are developing councils and the work is not over yet.

The Georgia Prescribed Fire Council and the Georgia Forestry Commission was successful in having 155 of Georgia's 159 counties sign a Prescribed Fire Proclamation supporting prescribed fire in their respective counties.

The Georgia Prescribed Fire Council has the full support of the Georgia Forestry Commission and for the fifth straight year, the two have been successful in having the Governor sign a proclamation declaring the first full week in February as Prescribed Fire Awareness Week in Georgia. The Council holds its annual meeting each fall. This year the meeting was held in Tifton GA, with attendance over one hundred. The agenda for the year's meeting included subjects on safe burning, writing a successful burn plan, and the future of prescribed fire and air quality. For information on joining the Georgia Prescribed Fire Council visit www.garxfire.com.

Forty-five professionals from State and Federal Government as well as non-profit organizations and private landowners met twice this year to develop a Strategic Plan for Prescribed Fire in Georgia. The plan can be viewed at www.gatrees.org. The plan lays out specific goals and objectives that will help guide Georgia in the use of Rx Fire through the year 2020.

FABRICATION SHOP

The Georgia Forestry Commission Fabrication Shop supported the state by providing quality customized fire suppression equipment.

Nine new tractors were equipped with firebreak plows and "V Blades" for putting in break lines to halt fire advancement. These tractors also had new emergency water tanks installed for extinguishing on-board fires. Four new road tractors were put into service with equipment installed. The shop built four transport beds for new trucks. The Fabrication Shop provided GFC's Rural Fire Defense Department with thirteen large tanks for their RFD Program. The Fabrication Shop this year produced ten "V Blades", one new plow, and nine new harrows. A total of 172 painting projects were completed as well as 270 repair projects.

The Fab Shop's goal is to ensure that the state of Georgia has the best equipment available for the suppression of wildfires.

RURAL FIRE DEFENSE (RFD) AND FIREWISE PROGRAM OPERATIONS

RFD lease equipment provided for rural fire departments during FY08 totaled 20 units with the most requested type being the new Super Fire Knocker. In addition, 20 type 6 wildland fire engines were produced for use by GFC county units. Another 23 work orders for repairs of pumping equipment for internal GFC customers were processed. Twelve work orders were processed for repairs of RFD equipment such as vehicles, pumps, tanks, and plumbing.

Volunteer Fire Assistance funds managed by RFD were dispersed as 50/50 grants to 53 Government entities to purchase structural fire gear, hoses, nozzles and other items needed to make fire trucks operational. VFA funds were supplied as grants to the Georgia Fire Academy to provide basic structural firefighter training for ten rural fire departments and to support two regional training sessions. Additional VFA funding was provided to GFC Training to support eight Georgia Basic Wildland Firefighter courses.

Through the GFC "Helping Hands" Program, \$168,000 of wildland firefighter clothing was provided to fire departments, forest industry cooperators, and other state agencies involved with prescribed and wildland fires.

Four meetings were held with the Rural Fire Defense Advisory Council, a group comprised of Georgia Fire officials, cooperators, and insurance representatives. GFC has provided facilitation and logistical support for the council's activities for 16 years.

Forest Protection has adopted the national Firewise and Firewise Communities USA Program that helps communities and individual homeowners share responsibility for protecting their homes and businesses from wildfire (www.firewise.org). Communities are offered free Firewise evaluations and an opportunity to become a Firewise USA Community. Individual homeowners are offered wildfire risk assessments. In fiscal year 2008, the City of Fargo in Clinch County became a Georgia Firewise Community. They joined Wildcat Developments in Dawson County, Randall Creek in Muscogee County, and Kinderlou in Lowndes County as nationally recognized Firewise USA Communities.

The Firewise traveling exhibit used to display concepts of defensible space, Firewise landscaping, and fire resistant building materials, traveled throughout Georgia in FY08. The trailer was set up at 24 events involving 72 show days, and an estimated 600,000 people were exposed to Firewise information.



Communications

THE SUSTAINABLE COMMUNITY FORESTRY PROGRAM (SCFP)

The Sustainable Community Forestry Program (SCFP) provides communities with resources to increase awareness of the benefits provided by a healthy and sustainable forest. To encourage citizen involvement in building long-term and sustainable community forestry programs, the Financial Assistance Program provided federal cost-share funding for 30 community-based projects. The 2008 Program Focus followed the objectives for the U.S. Forest Service's Urban and Community Forestry (U&CF) Program by concentrating on projects that involved management plans/tree inventories, certified arborists, tree ordinances or tree advocacy groups. A total of \$423,998 was allocated to grant recipients, who matched this money with \$464,190 in cash and \$323,888 in in-kind services and contributions. Six grant workshops were held in Gainesville, Marietta, Atlanta, Griffin, Statesboro and Albany.

SCFP competed for and received a total of \$325,534 in grant funding for three landscape-scale projects from the U.S. Forest Service. First, the Integrated Green Infrastructure Management System project uses a regional approach to help developing communities along the I-95 corridor to identify, conserve and manage important areas of canopy cover and greenspace. Second, Phase Two of the "Create a Legacy" marketing study was funded to help develop strategies that will motivate consumers to become involved in creating healthy environments for themselves and their children. Third, the GFC will develop a state assessment methodology based on a pilot study of the Etowah Watershed that will

assist in identifying conditions and issues to be addressed in a future State Response Plan for the U.S. Forest Service.

ARBOR DAY

The statewide Arbor Day Ceremony was held in Columbus in celebration of the city's 30th anniversary as a Tree City USA. As Georgia's first designated Tree City USA, Columbus demonstrated the statewide Arbor Day theme, *Connect and Collaborate: Working Together for a Healthy Urban Forest* through multiple successful partnership projects. A live studio interview with the Urban & Community Forestry Coordinator was featured on Columbus' WTVM noon news. The Mayors of Georgia's new Tree City USA communities and Georgia's Arbor Day Poster Contest winner were recognized. Fifth grade student Grayson Cohen of Blackburn Elementary School in Lumpkin County received the State Arbor Day Poster Contest Award. More than 2000 students participated in the contest across the state. Communities posted 37 Arbor Day events on the Georgia Forestry Commission Arbor Day website pages. These events resulted in at least 27 news articles.

The fourth Arbor Day Seedling Program for Legislators took place in FY08. GFC partnered with Keep Georgia Beautiful and encouraged tree planting events with the Keep America Beautiful (KAB) affiliates. A packet was mailed to each legislator which included media tools. The packet asked them to simply identify the KAB affiliate in their district to which the GFC would donate 10 seedlings on their behalf. Forty-nine legislators participated in the program.

TRAIL OF TREES

Tim Womick presented the Trail of Trees program at nine different schools or community centers in the Augusta, Savannah, Statesboro and Atlanta areas. Womick engages students at a level unlike most other speakers. His message has impact due to his unique presentation of mixing rhythm, fast-paced dialogue, and interaction with students. Approximately 1,600 students, teachers and others left this program with at least one memorable fact about trees and benefits they previously did not know. They also were presented with the big picture of processes within trees and the vital role of trees in the environment.

“MAKING THE SHADE” PROGRAM

SCFP’s “Making the Shade” program completed its second year. “Making the Shade” is designed to improve the physical health of students by strategically planting shade trees around elementary school playgrounds. The trees then help minimize the impact of elevated surface temperatures and direct exposure to the sun. U&CF grant funding totaling \$26,110 was awarded to five elementary schools – Cherokee in Polk County, May Howard in Chatham County, Russom in Paulding County, Social Circle in Walton County and Central Franklin in Franklin County. Almost 2,250 students will benefit from the installation of 139 trees at these participating schools.

TREE CITY USA

The cities of Harlem, Lilburn, Royston, Roberta, and Mansfield received first-time Tree City USA certifications for outstanding accomplishments. There were 114 communities recertified, for a total of 119 Tree City USA’s in Georgia. Twelve cities received the Tree City USA Growth Award and were recognized for programs demonstrating environmental improvement and higher levels of tree care.

GEORGIA UBRAN FOREST COUNCIL

GFC worked with the Georgia Urban Forest Council (GUFC) to host several educational programs across the state and an annual conference and awards program in November. In addition, activities in the Five-Year Plan for Georgia’s Urban and Community Forest 2007-2011 were accomplished.

Overall, SCFP personnel participated in more than 427 public education events, including 187 programs, 240 exhibits and 21 field days. SCFP foresters continued to provide technical assistance to Georgia communities and non-profits with tree ordinance development, project management, cultural practices and partnership development.



Forest Products Utilization, Marketing & Development

The Forest Products Utilization, Marketing and Development Program provided technical and marketing assistance to the existing forest products community, while providing leadership to expand the value of Georgia's forests by pursuing forestry economic development projects for the traditional and bioenergy industry, and continuing to develop the carbon sequestration registry for Georgia. These services, combined with the traditional existing industry assistance program, ensures that Georgia's forest industry remains a leading competitor in the global marketplace while contributing to the state's economic well being. Without healthy markets, owners of Georgia's 24 million acres of commercial forest have few economic incentives to manage their forests. Wise utilization of the state's forest resource base as an economic engine is a high priority. Rural economic development activities relate to quality of life issues as well as creating and sustaining jobs. Environmental concerns of climate change and carbon emissions are addressed through encouragement to participate in Georgia's Carbon Sequestration Registry. These combined efforts are vital to the state's overall effort to maintain a strong economy, healthy forests, and a sustainable environment.

ECONOMIC DEVELOPMENT OF FORESTRY RELATED PROJECTS

Forest Utilization and Marketing staff foresters provided assistance to a total of fifty-six potential projects. Six of these projects involved companies that are considering expanding in Georgia with new traditional wood products facilities. Fifty projects involved companies or non-profit groups assisting companies that desired to develop facilities to produce energy products from forest biomass. Fifteen projects involved biomass-to-electricity.

Fourteen projects involved biomass-to-liquid fuels. Eleven projects involved pellet production. The remaining ten projects were a mixture of local government assistance with specific projects, biomass equipment manufacturing projects, and industrial heat projects. Thirty-two resource reports regarding timber and biomass availability were provided to firms by the Marketing staff as part of their feasibility analyses. In addition, information on potential industrial development sites was incorporated into reports and other information provided to firms involved with the projects listed above.

Appling County Pellets, a subsidiary of Fram Renewable Fuels, was one project of note that the marketing staff was instrumental in establishing. Appling County Pellets began operation in February 2008 and expect to produce 130,000 tons of wood pellets annually at full operation. The marketing staff has also expanded marketing of wood pellets by coordinating the research and demonstration project where wood pellets are being used to heat poultry houses in Georgia.

TECHNICAL ASSISTANCE AND MARKETING

The Commission's Forest Products Marketing Directory database was made available on www.gatrees.org in a searchable format. Requests for the published directory continued as well, with requests originating throughout the United States and foreign countries. Surveys were conducted in 2008 to support the update of this directory and to assess timber drain levels throughout the state. The marketing staff contacted and received information from 537 primary and secondary wood processors during these surveys.

The GFC marketing staff responded to 517 individual requests for technical and marketing assistance. Formal presentations were provided to seventy-eight groups during meetings, workshops, or conferences with a total audience of 3,366 persons. The topics of these presentations included: forest biomass energy (23 presentations), the potential of carbon sequestration in Georgia forests (28 presentations), ecosystem services (1 presentation) and other general timber utilization topics (26 presentations). A total of 2,370 literature items were distributed.

The staff developed a variety of marketing tools for new and existing forest products. The marketing staff established and manned exhibits at six trade shows or meetings including the Engineered Lumber and Panel Conference in Atlanta, the Southeast Bioenergy Conference in Tifton, the Appalachian Regional Commission Renewable Energy Conference in Rome, Georgia, and others.

The staff developed and distributed thirty-eight information packets and other marketing tools for media. Information on Georgia's forest and biomass use from the GFC Utilization staff was used in over 20 instances by mass media, including one article in USA Today.

NEW FOREST PRODUCTS AND VALUES

The Biomass Program Manager continued to support the development of a forest bioenergy industry in Georgia. The bioenergy related activities are quantified above within the Technical Assistance and Marketing section. The GFC provided support regarding biomass energy by 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. The GFC partnered with several other organizations to support the Pine 2 Energy Coalition. The GFC staff assisted with developing bioenergy information tools that encourage the sustainable utilization of Georgia's forest resources for energy purposes and to increase the value of forest management

for Georgia landowners. In addition, the marketing staff participated in the Georgia Bioenergy Working Team's One Stop Shops, which provide a first step for potential bioenergy projects beginning in Georgia.

The Utilization staff actively participated in a cooperative mission to Brazil to learn more of ethanol production and market dynamics and to foster coordination of research between Georgia and Brazil. Information from this mission was distributed in a final mission report and through several presentations to groups. The mission resulted in visits to Georgia from two Brazilian bioenergy companies.

The Georgia Carbon Sequestration Registry went online at www.gacarbon.org during July 2007. While a regulatory-based carbon market did not develop during the fiscal year, the GFC staff promoted over-the-counter carbon markets by providing training to landowners and foresters on the market and by hosting training sessions conducted by private carbon credit companies. The GFC Utilization staff participated in several statewide and national groups to support the development of the forestry-offsets carbon market, including the Society of American Foresters National Task Force on Climate Change. The GFC expects the Registry to be continually developed to accommodate Georgia forest landowners with projects being recorded on the Registry in fiscal year 2009. The staff also plans to encourage the expansion of the Registry to other southern states.

The department continues to be active as an advisor to Georgia Tech's Advanced Wood Products Laboratory, on the Traditional Industries Program research committee, a member of the Southern Forest Products Association, a member of the Energy and the Environment Committee, a member of the Georgia Economic Developers Association, a member of the Southeast Agriculture and Forestry Energy Resources Alliance (SAFER), and actively coordinating with the U. S. Forest Service in interpreting forest inventory and analysis data for reports.



Reforestation

The 2007-08 year was challenging for the nursery, seed orchards, and tree improvement program. Although below-normal rainfall, personnel losses, restricted budgets, and aging equipment made FY08 very difficult, an extraordinary effort from a committed and diligent staff made the year successful.

Seedling sales dipped somewhat from the 2006-2007 season, but still exceeded each of the prior four years. More than 15 million trees were sold, providing economic, environmental, and aesthetic benefits directly to over 4,000 customers and reforesting about 25,000 acres in Georgia. While the gate value of these seedlings is about one million dollars, in 12-15 years these trees will conservatively reach a commercial value of \$15,000,000 or more. During that time they will remove millions of tons of carbon dioxide from the atmosphere, protect Georgia's watersheds and wildlife habitat, and offer a multitude of recreational benefits.

Georgia's valuable forests depend on a reliable, productive source of high quality seeds and the Georgia Forestry Commission's two seed orchards were up to the task. Though untimely frost damaged the slash cone crop, enough seeds were produced to meet nursery demands for Premium and Select Premium seedlings. In addition, the slash orchard provided sufficient seeds to sow a sizeable crop of pitch-canker resistant slash pine seedlings in 2008. Fast-growing, rust-resistant, and able to resist infection from the troublesome pitch canker fungus that periodically decimates slash pine forests, these seedlings will be available beginning in 2008-09 planting season. Loblolly seed crops were only moderate in terms of volume, but produced more than enough high-

quality, advanced generation seeds to satisfy nursery requirements. Hardwood seed crops varied by species as expected, but the usual array of vigorous hardwood seedlings will be available in the coming months.

Though funding and staffing issues continue to plague the tree improvement program, results continue to be impressive. The average level of improvement from seedlings developed by the breeding program and distributed through the nursery has grown to 25 percent. As Georgia strives to become the cornerstone of the bioenergy corridor, the ability to grow 25 percent more fiber on the same number of acres becomes increasingly valuable. In fact, when tree improvement gains are added to the benefits of tree planting, the value of the GFC Reforestation Department approaches a net present value of \$5,000,000 annually. With expenses representing only a small portion of that number, Reforestation may be one of the most effective and efficient programs the state offers.



Administration

INCOME AND EXPENDITURES			
	FY2006	FY2007	FY2008
FUNDING SOURCE			
FEDERAL FUNDS	9,219,735.00	8,444,672.00	8,266,970.00
OTHER FUNDS	7,604,317.00	8,105,289.00	8,578,388.00
STATE GENERAL FUNDS	34,140,479.00	33,914,092.00	37,290,677.00
GOVERNOR'S Emergency Funds		9,494,411.00	
FEMA-FIRE MANAGEMENT GRANT		21,534,204.00	1,859,230.00
PRIOR YEAR INVENTORY		460,553.00	120,000.00
TOTAL FUNDS	50,964,531.00	81,953,221.00	56,115,265.00
EXPENDITURES BY OBJECT CLASS			
TOTAL PERSONAL SERVICES	29,425,496.00	33,450,824.00	34,536,416.00
TOTAL REGULAR OPERATING EXPENSES	9,127,284.00	10,127,897.00	12,644,605.00
TRAVEL	208,772.00	245,755.00	380,935.00
MOTOR VEHICLE EQUIPMENT PURCHASES	1,399,973.00	709,492.00	795,213.00
EQUIPMENT PURCHASES	2,984,595.00	868,760.00	1,023,953.00
COMPUTER CHARGES	1,075,284.00	683,166.00	1,508,987.00
REAL ESTATE RENTALS	27,485.00	28,511.00	32,028.00
TELECOMMUNICATIONS	756,188.00	1,220,554.00	963,319.00
PER DIEM & FEES	303,680.00	396,500.00	406,881.00
CONTRACTS	5,513,667.00	33,680,654.00	3,702,638.00
WARE COUNTY TAX - RD. MAINT.	60,000.00	60,000.00	60,000.00
WARE COUNTY TAX - S. FOREST	28,500.00	28,500.00	20,000.00
TOTAL EXPENDITURES	50,910,924.00	81,500,613.00	56,074,975.00
EXPENDITURES BY PROGRAM			
REFORESTATION	1,362,854.00	1,379,764.00	1,493,800.00
PROTECTION	34,963,058.00	65,503,935.00	38,240,778.00
MANAGEMENT	9,608,334.00	10,141,038.00	11,753,929.00
GENERAL ADMINISTRATION AND SUPPORT	4,976,678.00	4,475,876.00	4,586,466.00
BONDS			
EQUIPMENT BONDS	2,900,000.00	1,500,000.00	2,500,000.00
CAPITAL OUTLAY BONDS		1,000,000.00	860,000.00
NUMBER OF EMPLOYEES	687	687	687

GEORGIA FORESTRY
COMMISSION



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