

GEORGIA FORESTRY
COMMISSION



GEORGIA

Statewide Forest Resources

Strategy 2020





Georgia Statewide Forest Resources Strategy

November 2020

Produced by

Georgia Forestry Commission
5645 Riggins Mill Road
Dry Branch, GA 31020
478.751.3500

Acknowledgements:

Georgia's original Forest Action Plan was produced with contributions from many program leaders of the Georgia Forestry Commission, Georgia Department of Natural Resources and U.S. Forest Service. Content contributors included Dr. Jon Ambrose, Constance Buford, Joe Burgess, Scott Thackston, Devon Dartnell, David Dickinson, Frank Sorrells, Ken Parker, Gary White, Scott Griffin, Josh Love, Joan Scales, Jim Ozier, Dru Preston, Dick Rightmyer, Buford Sanders and Risher Willard. Liz Kramer, University of Georgia College of Agriculture and Environmental Sciences contractor, conducted the GIS analyses. Final document design and production was accomplished by Wendy Burnett, Kassie Keck and Stasia Kelly. Development and publication of this document was assisted by a grant from the National Association of State Foresters.

USDA Nondiscrimination Statement

"The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202.720.2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call 800.795.3272 (voice) or 202.720.6382 (TDD). USDA is an equal opportunity provider and employer."

Front Cover Photo Credits:

Quail covey - Shane Wellendorf, Tall Timbers Research
Station Timber fire - Jen Kolb



Abbreviations:

ACUB	Army Compatible Use Buffer
AON	Assessment of Need
APHIS	Animal and Plant Health Inspection Service
ARRA	American Recovery and Reinvestment Act
BMP	Best Management Practice
CARS	Community Accomplishment Reporting System
CWPP	Community Wildfire Protection Plan
DNR	Georgia Department of Natural Resources
EPA	United States Environmental Protection Agency
EPD	Georgia Department of Natural Resources Environmental Protection Division
FIA	Forest Inventory and Analysis
FLA	Forest Legacy Area
FLP	Forest Legacy Program
FSA	Farm Service Agency
FSP	Forest Stewardship Program
GCSR	Georgia Carbon Sequestration Registry
GEMA	Georgia Emergency Management Agency
GFC	Georgia Forestry Commission
GIS	Geographic Information System
GOAL	Greater Okefenokee Association of Landowners
GROWS	Georgia Recognizes Our Woodland Stewards
GUFC	Georgia Urban Forest Council
HUC	Hydrologic Unit Code
HWA	Hemlock Woolly Adelgid
IMT	Incident Management Team
MOU	Memorandum of Understanding
MTH	Master Timber Harvester
NARSAL	Natural Resources Spatial Analysis Laboratory
NASF	National Association of State Foresters
NBCI	National Bobwhite Conservation Initiative
NGO	Nongovernmental Organization
NPS	National Park Service
NRCS	Natural Resources Conservation Service
PMAS	Performance Measures Accountability System
RC&D	Resource Conservation and Development
RCW	Red Cockaded Woodpecker
S&PF	State and Private Forestry
SCC	Stewardship Coordinating Committee
SCFP	Sustainable Community Forestry Program
SERPPAS	Southeast Regional Partnership for Planning and Sustainability
SFI	Sustainable Forestry Initiative
SGSF	Southern Group of State Foresters
SPB	Southern Pine Beetle
SWAP	State Wildlife Action Plan
SWRA	Southern Wildfire Risk Assessment
TMDL	Total Maximum Daily Load
U&CF	Urban & Community Forestry
UGA	The University of Georgia
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
WRD	Georgia Department of Natural Resources Wildlife Resources Division
WUI	Wildland Urban Interface



TABLE OF CONTENTS

Executive Summary	1
Introduction	2
Strategic Issues	
Issue 1: Water Quality and Quantity	3
Issue 2: Urbanization.....	7
Issue 3: Forest Health.....	9
Issue 4: Biodiversity.....	12
Issue 5: Air Quality	16
Issue 6: Fire Management.....	18
Issue 7: Fragmentation	21
Issue 8: Economics and Changing Markets	23
State Forestry Programs	
Fire Management	25
Forest Health.....	36
Forest Legacy.....	37
Forest Stewardship	39
Sustainable Community Forestry Program	43
Water Quality Program.....	46
Forest Utilization and Marketing.....	49
Reforestation	52
Georgia National Priority and Roles Matrix	54
National Priorities Update Report	97
Appendix	
Public and Partner Involvement.....	104
Integration of Other Plans and Assessments.....	105
List of Georgia Statewide Forest Resources Strategy Preparers.....	107
Forest Legacy Assessment of Need	
Forest Stewardship Plan	



EXECUTIVE SUMMARY

In 2008, the U.S. Forest Service (USFS) implemented a "Redesigned" State and Private Forestry (S&PF) Program. It was created in response to the impacts of increasing pressures on our nation's forests and decreasing S&PF funding and resources.

In accordance with the 2008 Farm Bill, all states must complete a State Assessment and Resource Strategy by June 2010 in order to continue to receive funding under the Cooperative Forestry Assistance Act. Georgia has joined other states in analyzing its forest conditions and trends to identify priority landscapes for the Statewide Assessment of Forest Resources. Based on the Assessment, this Statewide Forest Resources Strategy was composed to serve as the foundation for formulating S&PF competitive project proposals and to guide program direction.

With input from stakeholders at community meetings, via the website, and through advertised solicitation, the Georgia Forestry Commission identified the primary issues related to Georgia's forests in 2010. The issues ranked in order of importance as communicated by stakeholders are:

- 1) Water quality and quantity
- 2) Urbanization
- 3) Forest health
- 4) Biodiversity
- 5) Air quality
- 6) Fire management
- 7) Fragmentation and parcelization
- 8) Economics and changing markets

To meet the challenges posed by these complex issues across the state, geospatial analyses were used to identify priority areas in which to focus cooperative program work. With an integrated and strategic approach, the GFC has developed goals, objectives and strategies to address each primary issue in identified priority areas. To address critically important program functions not addressed under Strategic Issues, the State Forestry Programs section provides a more comprehensive description of how the GFC will prioritize work to address Georgia's issues. Those programs are:

- 1) Fire Management
- 2) Forest Health
- 3) Forest Legacy
- 4) Forest Stewardship
- 5) Urban and Community Forestry
- 6) Water Quality
- 7) Forest Utilization and Marketing
- 8) Reforestation

By identifying critical forestry issues and resolving them with knowledge, resources and targeted programs, the Georgia Forestry Commission can conserve and protect working forests while enhancing the myriad benefits of Georgia's 24 million acres of trees.



INTRODUCTION

The purpose of the new approach to USFS State and Private Forestry (S&PF) is to shape and influence use of forest land to optimize benefits from trees and forests for both current and future generations.

The USFS worked closely with the National Association of State Foresters to:

- Examine current conditions and trends affecting forest lands.
- Review existing S&PF programs to determine how best to address threats to forests.
- Develop a strategy for delivering a relevant and meaningful set of S&PF programs and opportunities.

The new approach focuses on three consensus-based S&PF national priorities:

- Conserve working forest landscapes.
- Protect forests from harm.
- Enhance public benefits from trees and forests.

To receive federal funding under the S&PF Program, projects must follow the annual national direction developed by the USFS and directly address one or more of the three national priorities. In order to ensure that S&PF resources are being focused on high priority areas with the greatest opportunity to achieve meaningful outcomes, each state, territory and island works collaboratively with the USFS and other key partners to develop a comprehensive statewide forest resources strategy.

The *Georgia Statewide Forest Resources Strategy* was developed on the basis of the *Georgia Statewide Assessment of Forest Resources* by identifying landscapes and projects where an investment of federal competitive grant funding could most effectively accomplish goals or leverage desired action.

Georgia's Strategy accomplishes the following:

- Outlines long-term strategies and programs to address priority landscapes identified in the Assessment and the three national priorities;
- Describes how the state proposes to invest federal and other funding resources to address priorities;
- Includes timelines for project and program implementation;
- Identifies partner and stakeholder involvement;
- Identifies strategies for monitoring outcomes within priority forest landscape areas and how actions will be revised when needed;
- Describes how the state's proposed activities will accomplish S&PF objectives;
- Describes how S&PF programs will be used; and
- Incorporates existing plans required by S&PF programs.



STRATEGIC ISSUES

The following issues were identified by stakeholders and key partners during the development of the 2008 *Sustainable Forest Management in Georgia* report. At the beginning of the state forest resources assessment and planning process, these issues were placed in a survey on the GFC website for public comment and ranking. The issues are presented in order of their importance as determined by the public survey (see Appendix), and are described comprehensively in the Strategic Issues section of the *Georgia Statewide Assessment of Forest Resources*. The GFC's program leaders and their teams of stakeholders developed the following goals, objectives and strategies to address the top forest resource issues in Georgia's priority areas.

Issue 1: Water Quality and Quantity

Issue Description



Protecting, conserving and enhancing water quality and quantity produced by forests was the highest ranked priority issue in GFC's public stakeholder survey for the Assessment. Forests provide remarkable benefits for Georgia's water resources. They help supply clean water for aquatic habitat, safe drinking water and recreational activities. Forested buffers protect biological diversity by stabilizing stream temperatures and providing food and habitat to aquatic ecosystems. Additionally, they protect water quality by reducing the amount of sediment, nutrients and other pollutants that enter streams, lakes and other surface waters.

Recent droughts that resulted in restrictions on water use for much of Georgia and the tri-state water wars with Alabama and Florida have brought attention to Georgia's water woes. Judge Magnuson's recent ruling that Georgia does not have legal rights to Lake Lanier, a critical source of water for Atlanta, places the state in a perilous position. If Judge Magnuson's ruling stands and Lake Lanier can no longer be used as a water source for Georgia, more water supply reservoirs must be constructed. Currently, 134 existing water supply reservoirs/watersheds supply millions of Georgians their daily water. Construction of additional reservoirs will result in loss of forest cover and could place restrictions on land uses upstream. State legislation regarding the need for more water supply watersheds is currently being debated.

The loss of forest land to urbanization is the greatest threat to Georgia's water quality. Removal of forest cover results in increased stormwater runoff and increased streamflow that causes erosion, sedimentation and flooding. In addition, the Georgia Comprehensive Statewide Water Management Plan states that more than 8,300 miles of streams do not meet state water quality standards because of nonpoint sources of pollution, to which forestry activities may contribute. An estimated 7,000 to 10,000 timber harvesting operations are conducted annually. If BMPs are not implemented or monitored, impacts to water quality could occur.



Goals, Objectives and Strategies

Goal 1: Maximize positive environmental impacts of Georgia's forests on water quality and quantity in designated public drinking water supply watersheds.

Objective 1.1: Work with local governments to implement watershed planning in designated water supply watersheds within the Blue Ridge, Ridge and Valley and Fall Line priority areas.

Strategy 1.1.1: Develop and implement “Smart Growth” plans consistent with Georgia Comprehensive Growth Planning.

Strategy 1.1.2: Ensure language in Smart Growth plans allows landowners to implement forest management practices.

Goal 2: Protect water quality during silvicultural operations in water supply watersheds and in biota and dissolved oxygen impaired watersheds especially those listed for TMDL reductions.

Objective 2.1: Increase number of landowners and loggers trained in BMPs in priority areas.

Strategy 2.1.1: Deliver education programs to increase understanding of BMPs in water supply and impaired watersheds.

Strategy 2.1.2: Work with partners to establish field demo sites on public lands for purposes of BMP education of local stakeholders.

Objective 2.2: Increase BMP implementation rates in priority areas.

Strategy 2.2.1: Determine BMP implementation baseline rates within each watershed.

Strategy 2.2.2: Increase monitoring of forestry practices to fill gaps through GIS analysis.

Strategy 2.2.3: Identify BMP implementation deficiencies by landowner type and practice.

Strategy 2.2.4: Review Stewardship and Tree Farm plans in priority areas to ensure adequate BMP recommendations in plans that focus on road infrastructure and stream crossings and that these recommendations are implemented as a requirement for certification.

Strategy 2.2.5: Continue BMP complaint resolution process.

Strategy 2.2.6: Continue soliciting and accepting conservation easements that require adherence to forestry BMPs.



Goal 3: Maximize water quality and quantity benefits provided by Georgia's forests.

Objective 3.1: Increase opportunities for cost-share and other incentives for private landowners in priority areas.

Strategy 3.1.1: With partnerships and funding, create incentive programs for streambank restoration, riparian buffer conservation, road and stream crossing improvements and conservation easements (similar to NRCS Rapid Watershed Assessment).

Strategy 3.1.2: Develop ecosystem services market for private landowners to conserve their working forests.

Strategy 3.1.3: Promote donations of conservation easements and the receipt of associated local, state and federal tax incentives for landowners.

Objective 3.2: Increase funding for GFC to implement water quality program objectives in priority areas.

Strategy 3.2.1: Identify state water quality program funding needs to implement BMP education, complaint investigation, field advice and biennial statewide BMP surveys.

Strategy 3.2.2: Pursue federal, state and local sources of funding including local water authorities.

Strategy 3.2.3: Seek funding from recreationist and fisheries organizations and other nongovernmental organizations.

Goal 4: Protect, conserve and enhance ecological functions of headwater streams.

Objective 4.1: Improve protection and enhancement of headwater streams in high priority watersheds and on public lands in priority areas.

Strategy 4.1.1: Identify and delineate headwater streams in high priority watersheds identified by DNR and on lands managed by public agencies.

Strategy 4.1.2: Develop management plans to conserve and enhance headwater streams on state lands.

Strategy 4.1.3: Work with private landowners to protect, conserve and enhance headwater streams in high priority watersheds identified by DNR.

Goal 5: Protect and enhance vegetated stream buffers.

Objective 5.1: Decrease the linear measure of streams lacking intact, functional, site-appropriate forested stream buffers by 50 percent in priority areas.

Strategy 5.1.1: Inform landowners of vegetated stream buffer values and practices and incorporate these practices in our Stewardship Plans.

Strategy 5.1.2: Work with NRCS and other appropriate agencies to implement Farm Bill, USFWS Partners for Wildlife and other programs.



Performance Measures:

- Number of Smart Growth plans.
- Number of landowners and loggers trained in BMPs.
- Number of demonstration sites developed.
- Number of incentive programs created.
- Number of landowners signed up and acres protected.
- Development of an ecosystem services market for private landowners.
- Number of sites and acres monitored for BMP implementation.
- Number of updated headwater stream maps.
- Number of streams with management plans.
- Number of linear feet of restored stream buffers.

Resources Needed:

Collaborations: MOUs need to be updated with all federal, state and local agencies and possibly NGOs.

Regulations: State TMDL implementation plans require monitoring of impaired watersheds in order to verify load reductions have or are being met. State and local policies are needed to address protection and monitoring of drinking water supply intakes/watersheds. Within the six priority areas, there are approximately 157 watersheds in which ongoing forestry operations must be monitored. Currently, only a gentleman's agreement with EPA and the Army Corps of Engineers addresses the investigation of forestry operations in U.S. waters. More than 7,000 forestry operations that result in the crossing of streams or wetlands are conducted in Georgia annually. If GFC is requested to investigate ongoing silviculture, each of the six water quality foresters will be expected to monitor an additional 200 operations per year in addition to the current load of 100 already being investigated for complaints.

Personnel: At least six forester specialists are needed to meet potential expectations.

Research: User-friendly computer models need to be developed that predict erosion and subsequent sedimentation inputs so that actual reduction numbers can be presented to state TMDL agencies.

Funding: All water quality funding to date has come through EPA Section 319 or Section 106 grants. This funding is being reduced to the point where GFC expenses overmatch by \$165,000 per year. An amount of \$300,000 per year is needed for the six positions.

Other: Educational materials, mapping, demonstration projects, technical assistance and training.



Issue 2: Urbanization

Issue Description

Urban sprawl was ranked the second most important forest resource issue by public stakeholders. The GFC- funded studies by The University of Georgia’s Natural Resources Spatial Analysis Laboratory (NARSAL) determined that approximately 54 acres of canopy cover were lost in the Atlanta region each day from 1991-2001, while approximately 28 acres of impervious surfaces (e.g., roads, buildings, etc.) were added daily. Updating this information to 2005 showed a slight decrease in canopy loss but impervious surface additions increased to approximately 55 acres daily.



In a similar statewide analysis, NARSAL determined that from 2001- 2005, Georgia’s canopy cover declined by a total of 398,330 acres, or 273 acres per day. Although canopy loss in rural areas often reflects ongoing forestry activities, in urban areas it often indicates development. Accordingly, impervious surfaces increased by 154,134 total acres, or 106 acres per day.

These changes effectively and permanently remove this acreage from forest cover. The loss of forest cover effects on water quality and quantity are huge. Trees act as natural water filters and help significantly slow the movement of storm water, which lowers total runoff volume, soil erosion and flooding. Infiltration rates for forested areas are 10 to 15 times greater than for equivalent areas of turf and grass. During a heavy rain, a healthy forest can absorb as much as 20,000 gallons of water per acre in an hour. Studies from Dr. Rebecca Moore of UGA’s Warnell School of Forest Resources showed that Georgia’s forests provide over 20.3 billion dollars of stormwater quantity and quality benefits. Many municipalities are now charging businesses and homeowners a “storm water utility” fee based on the amount of impervious surface at their location. Air quality and local climate are also negatively affected by loss of forest cover.

Goals, Objectives and Strategies

Goal 1: Enhance environmental services provided by trees and forests in urban and interface areas.

(U = Urban, I = Interface)

Objective 1.1: Increase programming to make communities aware of the benefit of increasing percent canopy cover in Georgia's metro areas from 37 percent (2005 baseline) to 40 percent by 2020.

Strategy 1.1.1: Initiate updated tree canopy loss and impervious surface studies. Utilize Urban and Community Forestry funding for studies to reveal trends and provide insight on the impacts of lost forest land. (U&I)

Strategy 1.1.2: Prepare educational programs and training targeting urban rural interface areas. Arm counties with up-to-date information about their particular county and communities, including ways to assess and address tree loss/gain issues and values of canopy cover. (U&I)



Strategy 1.1.3: Continue to educate the GFC staff and other state partners on values and methods for maintaining forest canopy in urban and developing areas. (U&I)

Strategy 1.1.4: Expand urban tree planting programs through “Making the Shade” and other public tree planting programs.(U)

Objective 1.2: Facilitate inclusion of trees and canopy cover in stormwater management plans for 15 percent of Georgia communities by 2020.

Strategy 1.2.1: Provide tree and stormwater education in partnerships with GUFC, water authorities and other agencies to show local communities options for managing stormwater with trees. (U&I)

Strategy 1.2.2: Promote model storm water/green infrastructure demonstration projects and assessment software such as iTree Hydro, the EPA’s Stormwater Manual and GFC’s Green Infrastructure Planning Guidelines and Website for Coastal Georgia to communicate the positive effects that trees have on community water quantity and quality. (I)

Strategy 1.2.3: Promote tree benefits specific to priority area HUCs in impaired waters. (I)

Objective 1.3: Demonstrate how to mitigate adverse effects of impervious surface through increased tree planting.

Strategy 1.3.1: Develop a fact sheet that documents the effects of impervious surfaces. (U)

Strategy 1.3.2: Conduct a demonstration project illustrating the benefits of shading impervious surfaces. (U)

Objective 1.4: Increase number of communities that actively manage high-value forest canopy for multiple benefits from four (2009 baseline) to six by 2020.

Strategy 1.4.1: Facilitate local community forest assessments, tree ordinance updates, management plans and storm mitigation plans. (U)

Strategy 1.4.2: Identify and promote greenspace connectivity in partnership with the Association County Commissioners of Georgia using an Integrated Green Infrastructure Management System. (U&I)

Performance Measures:

Average canopy cover in Georgia metro areas.

Number/percent of Georgia communities with tree management plans.

Number/percent of Georgia communities with leaders trained in tree canopy issues and methods.

Resources Needed:

Collaborations: Expanded partnerships with local governments and new partnerships with land conservation groups to enhance community outreach.

Personnel: State level forest resource GIS specialist and increased involvement of management foresters.

Legislation: Local regulation enhancements to facilitate forest land conservation of natural resources.

Research: Further analysis of resource conditions, arrangement and ownership patterns.

Funding: Grant funds to facilitate program initiation and development.

Other: Communication and educational materials for landowners and mapping resources.



Issue 3: Forest Health

Issue Description

Healthy forests are essential for air and water quality, habitat, environmental cooling, recreation and the multitude of forest products from which Georgians benefit.



The southern pine beetle (SPB) and other pine bark beetles are the biggest threat to pine timber in Georgia. Annosum root disease is another serious problem that results in decreased growth and death of trees in pine plantations. Nonnative invasive species including the hemlock woolly adelgid (HWA) and redbay ambrosia beetle are causing widespread damage to Georgia's forests.

Invasive plants such as cogongrass are finding their way into the state. Cogongrass, which destroys wildlife habitat, spreads aggressively and overcomes native grasses and herbaceous browse. Other established invasive plants such as kudzu, Chinese privet, Japanese climbing fern and Chinese tallowtree continue to displace native plants.

Goals, Objectives and Strategies

Goal 1: Minimize negative environmental and economic impacts of cogongrass in Georgia.

Objective 1.1: Ensure cogongrass infestations do not occur on more than 225 sites at any point in time within the East Gulf Coastal Plain and Atlantic Coast Plain priority areas.

Strategy 1.1.1: Deliver educational programs to landowners, loggers, partnering agencies and public to reduce spread and encourage prompt reporting of infestations.

Strategy 1.1.2: Expand cogongrass detection programs.

Strategy 1.1.3: Expand cogongrass treatment programs.

Strategy 1.1.4: Enhance interagency partnerships in addressing the cogongrass threat.

Strategy 1.1.5: Coordinate with adjacent states to ensure adequate control measures are implemented in border areas.

Goal 2: Minimize negative environmental and economic impacts of hemlock woolly adelgid in Georgia.

Objective 2.1: Reduce HWA population in urban/high value trees in the Blue Ridge priority area.

Strategy 2.1.1: Identify and treat high value hemlocks.

Strategy 2.1.2: Implement treatment of hemlock stands along perennial streams and in high value recreation sites in the Chattahoochee National Forest.

Strategy 2.1.3: Provide technical assistance and training to hemlock owners on HWA and the use of systemic insecticide treatments.

Strategy 2.1.4: Identify strategic predator release sites.



Strategy 2.1.5: Provide support for predator-rearing labs.

Strategy 2.1.6: Identify eastern and Carolina hemlock genetic reserve areas on National Forest lands to provide material for research and future restoration projects.

Goal 3: Minimize environmental and economic damage to Georgia's forests by southern pine beetle.

Objective 3.1: Decrease the number of acres infested by SPB in the Fall Line and Atlantic Coastal Plain priority areas.

Strategy 3.1.1: Conduct prediction trapping and convey results to landowners and land managers.

Strategy 3.1.2: Conduct aerial surveys to detect SPB infestations.

Strategy 3.1.3: Utilize cost-share program to identify at-risk landowners and assist in forest condition improvement.

Strategy 3.1.4: Utilize cost-share program to suppress active SPB outbreaks.

Strategy 3.1.5: Provide outreach to landowners and land managers to help with technical management decisions during outbreak periods.

Goal 4: Minimize environmental and economic damage to Georgia's forests from laurel wilt.

Objective 4.1: Reduce rate of spread of laurel wilt in the Atlantic Coastal Plain priority area.

Strategy 4.1.1: Partner in and encourage research and field trials for suppression options.

Strategy 4.1.2: Deliver programs to educate the public on the risk caused by movement of infested wood products.

Strategy 4.1.3: Monitor laurel wilt spread across all host species.

Strategy 4.1.4: Partner with other states in the region to share information and distribute consistent messages.

Strategy 4.1.5: Conduct outreach to the public about laurel wilt and its environmental impacts.

Goal 5: Minimize environmental and economic damage to Georgia's forests from annosum root disease.

Objective 5.1: Reduce incidence of annosum root disease in the Fall Line priority area.

Strategy 5.1.1: Target at-risk landowners and provide technical assistance.

Strategy 5.1.2: Provide outreach to landowners and land managers about the disease.

Strategy 5.1.3: Partner and aid in ongoing research for suppression techniques.

Performance Measures:

Numbers and acres of active cogongrass infestations.

Number of individuals trained on cogongrass detection and reporting.

Number of acres surveyed for cogongrass detection.

Number of acres treated for cogongrass infestation.

Number of collaborative projects.

Number of hemlocks treated for HWA.



Number of hemlock genetic reserve areas identified.
Number of SPB traps set.
Number of acres survey for SPB.
Number of landowners and land managers assisted with SPB.
Number of acres in SPB prevention cost-share program.
Number of laurel wilt field trials.
Number of laurel wilt educational program attendees.
Number of landowners assisted with annosum root disease.

Resources Needed:

Collaborations: Implementation of Invasive Species Task Force and Invasive Species Council.

Regulations: State and local policies to address importation of new pests and spread of endemic ones.

Personnel: Continued and improved funding for existing personnel and program expansion.

Legislation: State and federal laws to mandate closer inspection of cargo for forest pests entering the U.S. and movement of pests within the U.S.

Research: State university-driven studies to investigate prevention and suppression options for new pests.

Funding: Grants, state funding, cost-share programs and outreach programs to educate land managers and stake holders about forest pests

Other: Educational materials, mapping, demonstration projects, technical assistance and training.



Issue 4: Biodiversity

Issue Description

Georgia's rich biodiversity is threatened by several factors including loss of isolated wetlands, degradation of headwater streams and mature bottomland forests due to development pressures and other land-disturbing activities and habitat degradation by invasive exotic species. Many of Georgia's rare or declining species depend upon fire-maintained forests and karst environments. The lack of prescribed fire in fire-dependent ecosystems and lack of karst environment protection further endangers these species.



The drastic loss of pine savanna, resulting primarily from conversion to other land use types and reduction in fire, has contributed to the severe decline of numerous wildlife species that rely fully or in part on these habitats to meet their life requisites. Northern bobwhite (Georgia's state gamebird) serves as one example of a species in conservation need that is largely dependent on pine savanna restoration, which is a priority of the National Bobwhite Conservation Initiative. Georgia's bobwhite population has declined by over 70 percent since 1966.

Goals, Objectives and Strategies

Goal 1: Restore and maintain fire-dependent ecosystems to enhance habitat of northern bobwhite and other grassland obligate wildlife species.

Objective 1.1: Increase prescribed fire occurrence and frequency in the fire-dependent ecosystems of the Atlantic Coastal Plain and East Gulf Coastal Plain.

Strategy 1.1.1: Conduct prescribed fire benefits education and outreach for landowners with the Georgia Prescribed Fire Council.

Strategy 1.1.2: Target state and federal landowner incentive programs for prescribed burning in priority area landscapes.

Strategy 1.1.3: Continue to identify and map unique, rare and threatened fire-dependent communities.

Strategy 1.1.4: Maintain a data base of prescribed burning activity on conservation lands and provide technical guidance.

Strategy 1.1.5: Promote two year prescribed burn frequency for existing longleaf and other pine to restore and maintain woodland savanna ecosystems.

Strategy 1.1.6: Use existing Armuchee Ridges Thinning and Restoration project on the Chattahoochee National Forest to restore and maintain native montane longleaf and shortleaf pine habitat communities.

Objective 1.2: Restore at least 200,000 additional acres of longleaf and other pine savannas and build habitat connectivity between priority areas within the next five years.

Strategy 1.2.1: Continue the 2008 Alabama-Georgia-Florida Longleaf Pine Ecosystem Recovery Corridor S&PF Grant in the East Gulf Coastal Plain to replace, enhance and restore longleaf pine habitat in its natural range.



Strategy 1.2.2: Continue the Regional Longleaf Pine Restoration Initiative and Fuel Reduction ARRA project to restore longleaf pine and native ground cover and educate the public and forest managers about the values, opportunities and methods of longleaf pine restoration.

Strategy 1.2.3: Continue the Dixon Memorial State Forest Wildland Recovery and Habitat Restoration Redesign grant project to re-establish longleaf pine through site preparation and planting of longleaf pine seedlings.

Strategy 1.2.4: Use existing Farm Bill and state programs to promote frequent forest thinning and prescribed fire frequency (two years) necessary to restore and maintain pine savannas.

Objective 1.3: Enhance habitat for ruffed grouse, golden-winged warblers and other priority species in accordance with SWAP and WRD management objectives in the Blue Ridge and Ridge and Valley priority areas.

Strategy 1.3.1: Work with public and private landowners to encourage active forest management to benefit ruffed grouse, golden-winged warblers and other wildlife species dependent on early and mid-succession stages.

Strategy 1.3.2: Manage appropriate high elevation areas on the Chattahoochee National Forest to sustain a distribution of early-successional grass/shrub and seedling/sapling habitat areas.

Goal 2: Protect, conserve and enhance ecological functions of bottomland forest habitats.

Objective 2.1: Assess distribution and condition of bottomland forest habitats in all priority areas.

Strategy 2.1.1: Identify and map high priority bottomland forest habitats using aerial photos and satellite imagery.

Strategy 2.1.2: Conduct field surveys of high priority bottomland forests to assess habitat quality and biodiversity value.

Objective 2.2: Increase conservation plans for bottomland forest habitats in priority areas.

Strategy 2.2.1: Develop management plans for bottomland forest sites on state and federal lands to conserve and enhance biodiversity values.

Strategy 2.2.2: Work with private landowners and other agencies to protect, conserve and enhance bottomland forest habitats.

Goal 3: Protect, conserve and enhance ecological functions of isolated wetlands.

Objective 3.1: Assess distribution and condition of high priority isolated wetlands in all priority areas.

Strategy 3.1.1: Identify and map high priority isolated wetland habitats using aerial photos and satellite imagery.

Strategy 3.1.2: Conduct field surveys of high priority isolated wetland sites to assess overall habitat quality and biodiversity value.



Objective 3.2: Increase number of conservation plans for high priority isolated wetlands.

Strategy 3.2.1: Develop management plans for isolated wetlands on state and federal lands to conserve and enhance biodiversity values.

Strategy 3.2.2: Work with private landowners to protect, conserve and enhance high priority isolated wetlands.

Goal 4: Protect karst environments.

Objective 4.1: Increase knowledge of critical karst feature locations in Ridge and Valley and East Gulf Coastal Plain priority areas.

Strategy 4.1.1: Survey and document locations of karst features of concern.

Strategy 4.1.2: Conduct ecological surveys to prioritize sites.

Objective 4.2: Implement protection of all relevant karst features with site-suitable forested buffers and management guidelines in priority areas.

Strategy 4.2.1: Inform landowners and managers of relevant values and practices.

Strategy 4.2.2: Promote and implement Farm Bill and other programs to assist landowners.

Goal 5: Manage Chattahoochee-Oconee National Forest lands in Georgia to restore and maintain forest ecosystems representative of the ecoregions where they occur.

Objective 5.1: Increase adaptive management through the 2004 Land and Resource Management Plan for the Forests to restore and maintain native ecosystems, while providing for balanced human use in priority areas.

Strategy 5.1.1: Implement forest projects to demonstrate the sustainability of diverse ecosystems that support viable plant, wildlife and fish populations including habitats for species that need large contiguous forested landscapes found on public lands. There would be a variety of old growth communities to meet biological and social needs.

Strategy 5.2.1: Implement forest projects to protect or restore the rare ecological communities found on National Forest lands. Examples include mountain wetlands and bogs, oak woodlands and savannas, table mountain pine forests, rock outcrops and cliffs, canebrakes and various old growth types.

Goal 6: Create suitable habitats for the recovery of the endangered Red Cockaded Woodpecker (RCW) on public lands.

Objective 6.1: Increase management of appropriate ecosystems on the Oconee National Forest to create habitat for RCW in the Fall Line priority area.

Strategy 6.1.1: Implement the U.S. Fish and Wildlife Service's RCW Recovery Plan (January 2003) on the public lands of the Oconee National Forest to provide approximately 46,000 acres of habitat supporting active RCW clusters. Management involves the restoration and maintenance of habitats with forest health a priority. Primary tools include the use of timber harvest to manage stand density and prescribed fire to control competing species.



Strategy 6.1.2: Establish a demonstration area for landowners on managing forest lands in the ecoregion compatible with RCW habitat.

Goal 7: Restore American chestnuts in Georgia.

Objective 7.1: Increase acreage of blight-resistant American chestnut in the Blue Ridge and Ridge and Valley priority areas.

Strategy 7.1.1: Identify appropriate areas within the hardwood forests of the Chattahoochee National Forest in the Blue Ridge ecoregion for restoration of the American chestnut and implement restoration through planting and cultivation of seedlings.

Strategy 7.1.2: Identify interested private landowners with similar ecosystems to restore American chestnut on private lands in the Blue Ridge priority area.

Performance Measures:

Number of landowners contacted through field days, programs and social media.

Number of acres burned in priority areas.

Acres of longleaf pine restored.

Number of acres thinned and burned through cost-share programs.

Total acres of high priority bottomland forest sites protected through conservation easements and/or long-term management plans on private lands.

Total acreage of isolated wetlands mapped and assigned preliminary habitat quality status.

Total acres of high priority isolated wetlands protected through conservation easements and/or long-term management plans on private lands.

Prioritized list of karst sites.

Number of projects conducted in rare communities.

Number of acres of RCW habitat managed.

Establishment of an RCW demonstration site.

Number of areas identified for American chestnut restoration.

Resources Needed:

Collaborations: Expanded and new partnerships with NGOs in conservation and outreach.

Personnel: State level forest resource GIS specialist, state level software programmer.

Legislation: State laws to create incentives for forest-based ecosystem services.

Research: Enhanced analysis of resource conditions, threats and opportunities through GIS-based systems.

Funding: State grant options and special project funding to address needs.

Other: Educational materials, mapping, demonstration projects, technical assistance and training for personnel to deliver programs.



Issue 5: Air Quality

Issue Description

Trees improve air quality by removing air pollutants, sequestering carbon and reducing energy usage which further reduces the amount of carbon pollution produced by utility companies.



Private forest lands have enormous potential to provide climate benefits through carbon sequestration. Monetizing forest carbon through private forest landowner participation in carbon markets provides an opportunity for a measure of compensation for the provision of the societal benefits of forests including water quality and quantity, flood control, air quality, aesthetics, recreation and wildlife habitat. Since most of the land in the South is in private ownership, landowners who are able to generate additional revenue from carbon markets may be more likely to maintain their forest lands, resisting the pressure to develop their lands.

The role community trees play in enhancing air quality is significant. By reducing air pollution, they save money in pollution mitigation efforts and health care costs. To enhance the role trees and forests play in sustaining air quality, communities must set goals to minimize the loss of trees while maximizing their benefits.

Goals, Objectives and Strategies

Goal 1: Develop and enhance value-capture activity for carbon sequestration in forests.

Objective 1.1: Increase the amount of forest land involved with carbon sequestration offset projects at some market or value-capture level in priority areas.

Strategy 1.1.1: Educate forest landowners and landowner agents to enable their participation in carbon sequestration projects.

Strategy 1.1.2: Develop the GFC carbon protocol/registry revision or merge with new compliance protocols. The stages of development will include the following components:

- a) Monitor the development of climate legislation and designated standards for forestry offsets in the compliance market.
- b) Develop a plan to modify or merge the Georgia Carbon Sequestration Registry (GCSR) to support the new compliance market.
- c) Identify funding for GCSR modification.
- d) Initiate GCSR changes.
- e) Conduct stakeholder review of proposed changes.
- f) Complete GCSR revision and associated realignment of GFC carbon sequestration assistance program.
- g) Develop new partnerships with private transaction/marketing platform(s).



Goal 2: Enhance air quality in Georgia.

Objective 2.1: Increase canopy cover in Urban and Interface priority areas.

Strategy 2.1.1: Assist communities in setting tree canopy goals.

Strategy 2.1.2: Utilize grant and corporate funds to plant trees in communities.

Objective 2.2: Increase public understanding of the role of trees and forests in air quality in Urban and Interface priority areas.

Strategy 2.2.1: Partner with utilities to educate homeowners about the energy benefits of strategically planted trees.

Strategy 2.2.2: Identify air quality benefits of community forests related to public health.

Goal 3: Monitor air quality on the Chattahoochee National Forest to meet the goals of the federal Clean Air Act and applicable Georgia air quality regulations to evaluate air pollution impacts to forest resources.

Objective 3.1: Monitor air quality in the Ridge and Valley priority area in the vicinity of the Cohutta Wilderness Area in Fannin and Murray Counties, Georgia, designated as Class I by the U.S. Congress.

Strategy 3.1.1: Work with EPD to monitor visibility impairment, ozone impacts and pollutants affecting forest resources in the Cohutta Wilderness as an indicator of air quality.

Performance Measures:

Number of acres of forest land involved in carbon offset projects at some market or value capture level.

Percent increase in tree canopy.

Number of trees planted.

Number of education program attendees.

Partnerships with utility companies.

Implementation of a monitoring system.

Resources Needed:

Collaborations: More collaboration is needed among the SGSF and others to promote SGSF publication, *Guiding Principles for A Practical and Sustainable Approach to Forest Carbon Sequestration Projects in the Southern United States*. Collaboration with agencies such as EPD and others (possibly including MOUs) will be needed as federal green house gas regulations are developed.

Regulations: Federal and/or national standard, protocol and definition of a forest carbon offset is needed. A strong market for forest carbon offsets is dependent upon federal regulation of green house gas emissions.

Personnel: Two forest carbon specialists currently handle the carbon offset program and additional staff will be needed as the carbon offset market develops.

Research: Financial analysis needed for forest investments which specifically include participation in carbon offset markets. Modification of the GCSR so that it works with a federal offset program and is a value-added tool by facilitating transparency in the developing carbon markets.

Funding: In addition to personnel funding, grant awards or other types of funding are needed for research listed above.



Issue 6: Fire Management

Issue Description



Georgia averages approximately 5,600 wildfires per year that burn 46,000 acres. In addition to that annual loss of or damage to forest land, a major threat is posed by the potential loss of life and property. Georgia currently loses approximately 115 homes valued at \$4.2 million and 180 outbuildings valued at \$1.3 million to wildfire each year. The GFC Fire Management program saves approximately 3,200 structures (homes and outbuildings) valued at \$500 million annually through direct wildfire suppression efforts. Urbanization, increasing levels of forest fuels and restrictions that reduce prescribed burning are escalating forest wildfire threats.

The recent Southern Wildfire Risk Assessment (SWRA) determined that 25 percent of Georgia, or about nine million acres, is designated as Wildland Urban Interface. The SWRA also determined that 5,000 of Georgia's communities are ranked as "high" or "very high" for wildland fire risk. Mitigation programs' limitations have compelled the GFC to provide more public education about the risk from wildfires and the need for more fire prevention. Most fire causes can be traced to human involvement. Preventing man-made wildfires from starting in the first place is a continuing challenge. Finding programs that help reduce this cause of fire is a high priority. All fires are not preventable, so good wildfire protection programs must in place when fires do occur. Wildfire protection can be addressed at the county level, at the community level and for the individual homeowner.

Goals, Objectives and Strategies

Goal 1: Protect Georgia communities from wildfire.

Objective 1.1: Facilitate community wildland fire planning for communities at risk within and adjacent to priority areas.

Strategy 1.1.1: Continue competitive grant that introduces the community wildfire protection planning process to county leadership and will produce countywide CWPPs in the Blue Ridge, Ridge and Valley, Fall Line and Atlantic Coastal Plain priority areas over a three-year period.

Strategy 1.1.2: Increase number of Firewise Communities/USA in high risk communities in the Blue Ridge, Ridge and Valley, Fall Line and Atlantic Coastal Plain priority areas.

Strategy 1.1.3: Integrate county CWPPs with GEMA county disaster hazard mitigation plans to provide coverage for a wildfire disaster in the Blue Ridge, Ridge and Valley, Fall Line and Atlantic Coastal Plain priority areas.

Strategy 1.1.4 Utilize the Southern Wildfire Risk Assessment Portal (SouthWRAP) to identify high risk wildland-urban interface to focus fire prevention efforts.

Goal 2: Prevent and mitigate wildfire.

Objective 2.1: Reduce the number and severity of wildfires in priority areas.



-
- Strategy 2.1.1: Combat arson incidence through the Law Enforcement program in the Ridge and Valley and Atlantic Coastal Plain priority areas.
 - Strategy 2.1.2: Produce fire prevention messages and programs to educate the public on preventing fires and the benefits of mitigation programs in the Blue Ridge, Ridge and Valley, Fall Line and Atlantic Coastal Plain priority areas.
 - Strategy 2.1.3: Continue to expand the computerized system to handle a larger load of burning permits more efficiently and retain a comprehensive database.
 - Strategy 2.1.4: Provide firebreak plowing and prescribed burning services.
 - Strategy 2.1.5: Utilize Fire Prevention team members to provide fire prevention information to homeowners, evaluate risks to individual homes and provide assessments of their findings in the Blue Ridge, Ridge and Valley, Fall Line and Atlantic Coastal Plain priority areas.

Goal 3: Implement the Prescribed Fire Strategic Plan.

Objective 3.1: Increase the number of prescribed fire acres in priority areas.

- Strategy 3.1.1: Continue to implement the “One Message, Many Voices” communications and education campaign to promote the benefits of prescribed fire in cooperation with Southern Region states.
- Strategy 3.1.2: Manage smoke from prescribed fire to minimize air quality and traffic impact by using technological advances to track and manage smoke in the Ridge and Valley, Fall Line and East Gulf Coastal Plain priority areas.
- Strategy 3.1.3: Increase incentives to land managers using prescribed fire by maintaining current prescribed fire incentive programs including Community Protection burns, the GOAL hazard mitigation program and NBCI in the Blue Ridge, Ridge and Valley, Fall Line, Large River Bottomlands and Atlantic Coastal Plain priority areas.
- Strategy 3.1.4: Create and manage qualified agency and interagency burn teams and burn programs with adequate supplies to support more prescribed burning opportunities in the Blue Ridge, Ridge and Valley, Fall Line, Large River Bottomlands and Atlantic Coastal Plain priority areas.

Performance Measures:

Number of county CWPPs.
Number of Firewise Communities.
Number of arson wildfires and arson arrests.
Expand the capabilities of the burning permit system to real time mapping locations of prescribed burning activity.
Results of “One Message, Many Voices” pre-campaign and post-campaign survey.
Miles of firebreaks plowed.
Number of prescribed fire acres burned.

Resources Needed:

Research: User friendly computer systems need to be developed that will log information on prescribed burns across Georgia, pinpoint burns on maps, capture data for current and future needs and track smoke and its effects on highway traffic and air quality. SWRA data sets need to be upgraded; GIS information



needs to be gathered to evaluate the fuels, communities and vegetative layers.

Personnel: Eight full-time dispatchers are needed in order to operate efficient 24-hour dispatch centers that will track wildfire activity, issue burn authorizations and monitor smoke impact. A specialist is needed to assist with the development of CWPPs and promote the Firewise program.

Funding: An estimated \$800,000 will be needed above what the State can provide to effectively introduce or continue to operate the programs described in the Issues section of this document.



Issue 7: Fragmentation and Parcelization

Issue Description

The future of Georgia's forests is imperiled by increasing forest fragmentation and parcelization. The majority of Georgia's productive forest lands are in private ownership; these private landowners are facing increased pressure to convert their forest lands to other uses. Taxation, mass divestitures of forest industry land and development pressures are the leading contributing factors.



Forest fragmentation impedes the management of fire and insect, disease or invasive plant eradication efforts. It disrupts wildlife corridors and the migration routes of many wildlife species. Though parcelization may not result in forest canopy loss, in many cases resources on the tract become unavailable to markets. Fragmentation and parcelization result in less efficient management units, which contribute to cost increases and resource management difficulties.

Goals, Objectives and Strategies

Goal 1: Conserve working forest landscapes for multiple values and uses.

Objective 1.1: Protect Fall Line area from fragmentation and parcelization.

Strategy 1.1.1: Determine land ownership demographics and management interests.

Strategy 1.1.2: Identify and assist forest landowners in the Piedmont National Wildlife Refuge and Oconee National Forest area.

Strategy 1.1.3: Deliver education and assistance program to military base areas in the Fall Line priority area in cooperation with SERPPAS.

Goal 2: Protect the high biological diversity of Georgia's forests.

Objective 2.1: Increase the number of acres protected from fragmentation and parcelization in priority areas.

Strategy 2.1.1: Recognize the 12 digit HUC/ 30 percent forested/ greater than 50 percent intact landscape layer as the initial delineation of a priority for program delivery and budget available funds for the creation of new or revised plans based on being “in” initial priority delineation (75 percent) and “out” of initial priority delineation (25 percent).

Strategy 2.1.2: Adopt new procedure and implement with State Forest Stewardship Coordinating Committee oversight to ensure funds are applied to the most worthy applicants for plan development.

Strategy 2.1.3: Convene a subgroup of the State Forest Stewardship Coordinating Committee to draft an initial ranking process with relevant criteria to ensure the criteria for ranking the applications addresses as many resource concerns and issues as appropriate.



Goal 3: Enhance public benefits from trees and forests including air and water quality, soil conservation, biological diversity, carbon storage, forest products, forestry-related jobs, production of renewable energy and wildlife.

Objective 3.1: Promote landscape level approach to program delivery in priority areas.

Strategy 3.1.1: Identify landscape scale pilot projects in priority areas to implement program delivery to:

- Protect and enhance water quality and quantity.
- Improve air quality and conserve energy.
- Assist communities in planning for and reducing wildfire risks.
- Maintain and enhance the economic benefits and values of trees and forests.
- Protect, conserve and enhance wildlife and fish habitat.
- Connect people to trees and forests, and engage them in environmental stewardship activities.
- Manage and restore trees and forests to mitigate and adapt to global climate change.

Strategy 3.1.2: Continue the Central Georgia Strategic Outreach Redesign grant and Appalachian Riparian Initiative grant.

Performance Measures:

Number of contiguous forest land acres protected.

Number of landowner assists.

Number of educational programs presented.

Number of landscape scale projects in priority areas.

Number of acres under an approved management plan.

Number of acres certified as forest stewards.

Number of acres within military base ACUB priority areas assisted.

Resources Needed:

Regulations: State and local policies to address recognition of resource values (monetary and non-monetary).

Personnel: State level forest resource GIS specialist and state level software programmer.

Legislation: State laws to create incentives for forest-based ecosystem services.

Research: Enhanced analysis of resource conditions, threats and opportunities through GIS-based systems.

Funding: Continue state grant options and enhance special project redesign funding to address needs.

Other: Educational materials, mapping, demonstration projects, technical assistance and training for personnel to deliver programs.



Issue 8: Economics and Changing Markets

Issue Description

Georgia's forest industry brought more than \$36 billion to Georgia's economy and employed more than 148,000 people in 2018. It is the second largest industry in Georgia based upon wages and salaries and the third largest based upon employment.



The overall objective is to increase the value of forests and forest products. Strategies will be employed that address in a combined manner both the changing market “threats” described in the Assessment and that take advantage of several opportunities related to changing markets. The threats have been identified as globalization, product substitution, economic recession and demands for certified wood products. Potential positive impacts can be obtained through the opportunities of: developing new forest bioenergy facilities, attracting other new forest product manufacturing firms, developing international trade in forest products and carbon offsets through sequestration in forests.

Goals, Objectives and Strategies

Goal 1: Increase the total value of wood products delivered to mills.

Objective 1.1: Increase the number of mills producing both traditional and new bioenergy products in priority areas.

Strategy 1.1.1: Facilitate marketing referrals through continued collection and dissemination of the Wood Product Marketing Directory, participation in trade shows (international and domestic), online marketing development and other traditional methods through coordinated activities that involve the Southern Group of State Foresters Marketing and Utilization Group, the Hardwood States Export Group and other partners.

Strategy 1.1.2: Identify and contact potential new industries that are seeking expansion and that could benefit from building mills in Georgia through increasing new partner contacts, participation in trade shows and other meetings that are beyond the traditional forestry scope. Bioenergy production will take a high priority focus because of the current market potential and the opportunity to use some of the previously-unutilized forest residues.

Objective 1.2: Increase the amount of wood products exported.

Strategy 1.2.1: Pursue international marketing and business recruitment missions.

Objective 1.3: Increase the amount of certified wood products produced in Georgia mills.

Strategy 1.3.1: Facilitate the increase of certified forests in Georgia by identifying landowners who are active in the Forest Stewardship program and assisting



with their certification in the Tree Farm and other programs in the Atlantic Coastal Plain.

Strategy 1.3.2: Conduct workshops for both forest product companies and landowners to provide information on requirements and benefits of forest certification and wood product certification in priority areas.

Strategy 1.3.3: Increase marketing referrals made concerning certified wood products by department staff.

Strategy 1.3.4: Pursue development of ecosystem services markets through collaboration with land developers, industry, county commissions and soil and water conservation districts to maintain and enhance the forest land base.

Performance Measures:

Number of primary processing facilities with 20 employees or more.

Number of mills either directly exporting to international companies or selling to wood export brokers.

Number of primary mills producing certified wood products.

Acres of certified forest land in Georgia including the Sustainable Forestry Initiative, Tree Farm Program and Forest Stewardship Certification.

Resources Needed:

Collaborations: Close working relationships between the GFC staff and economic development organizations and industry associations to increase marketing effectiveness and efficiencies. There is a need for coordination within and among various forest certification systems to ensure that a favorable message is formed regarding forest management and the use of wood products. Specific collaboration is needed between the GFC staff, the Tree Farm State Committee and partnering industries to ensure that certified Tree Farms are developed and increased across the state. Collaboration within the wood supply chain is needed to accomplish the chain of custody requirements of certification systems.

Regulations: GFC staff should become proficient in advising industry representatives on APHIS export requirements and in providing information and advice on timber and biomass harvesting regulations.

Legislative: GFC staff should participate as advisors and technical experts in the development of new legislation that sets requirements or incentives on forest product harvest and/or manufacturing.

Research: Studies on the economics of various harvesting practices, including forest certification requirements are needed. Information should be developed that identifies areas for timber harvest exclusions such as global and state ranked ecological communities. Continued and intensified FIA work is needed with focus on the use of remote sensing. This is needed to provide credible information to prospective industries. Continued industry surveys are vital with reductions in state funding; external funding for Timber Product Output surveys may become necessary.

Personnel: This goal could be accomplished with three to four staff members. One staff member would be dedicated to new products and prospective industry recruitment. In addition, forest product marketing (domestic and international) and certified wood product systems should each have at least one assigned staff member. Currently, there is only one staff member assigned to this goal with others assisting on a temporal basis.

Funding: Full pursuit of the strategies listed would require a funding level of over \$500,000 per year including personnel costs for three staff member, trade shows, an international recruitment mission, educational workshops and other operating costs.



STATE FORESTRY PROGRAMS

Fire Management

Program Description

The Georgia Forestry Commission was created to help protect the state's rich forest resource from the ravages of wildfire. Fire is both good and bad for Georgia's forests. Wildland fire management includes systems for protecting forests and citizens from the devastation of wildfire and applying beneficial prescribed fire for managing forests and sustaining special fire-dependent forest ecosystems. The GFC's Fire Management program is divided into three main categories: Fire Suppression, Wildfire Prevention/Mitigation and Incident Management.

Fire Suppression

About 90 percent of the GFC budget supports for fire management programs, and the majority of its personnel are employed in fire suppression positions. The GFC is mandated to manage and extinguish all wildfires in the state. *Georgia experiences nearly 5,600 wildfires per year that burn nearly 46,000 acres.* Georgia has a strong fire suppression capacity with more than 400 fire management personnel. The GFC firefighter workforce consists of the following:

Position Level	Total Number	Vacancies	Avg. Tenure	Retire w/in 5 years	% Retiring
Forest Ranger	304	24	8	25	8.2%
Chief Ranger	76	3	17.9	29	38.16%
Forester	28	1	7.5	4	14.29%
Asst. District Mgr.	11	0	21	8	72.73%
Staff Forester	8	0	18	2	25%

More than 30 percent of the GFC's most experienced workers will be retiring in five years or less. The average tenure in the forest ranger class is less than 10 years. If the 28 vacant positions are filled, there will be more than 80 forest rangers that have fewer than three years of experience. In order to better protect Georgia's people, property and forests from wildfire, training programs must be expanded. Much of this will be accomplished in-house. The Georgia Basic Wildland Firefighter course, offered by the GFC, gives structural firefighters basic training on wildland firefighting. This partnership provides additional better trained initial response resources.

The GFC fleet of equipment consists of 340 fire suppression crawler tractors, 150 wildland fire engines, 17 patrol aircraft and one fire suppression helicopter. Notably, the fleet is aging rapidly. While equipment is maintained at a high level of readiness by the firefighter assigned to the crawler, transport or engine, the cost of material to maintain the equipment is on the rise. Also, a high cost is associated with repairs that are outsourced to local repair shops. The average operational cost to the GFC firefighting fleet is \$17 million annually. State funds available to purchase new equipment are limited.

Despite these conditions, the GFC suppresses most wildfires during initial attack, with the average size wildfire being 8.3 acres. Georgia also enjoys favorable partnerships with the Chattahoochee-Oconee National Forests in Georgia, Okefenokee and Piedmont National Wildlife Refuges and with the many military installations in the state.



Communications

Having excellent communications with resources in the field and with field operation support is essential. A highly technological communication program with 121 dispatch locations supports suppression efforts. The GFC's ranger stations can program local frequencies in base station, mobiles and portables into "Initial Attack Groups" in their respective radios. These respective frequencies are programmed to include repeaters for immediate access giving Interoperability communication with participating agencies. Each ranger in the field is equipped with a device capable of receiving Alpha-Numeric/Text Messages. *Da-Page* allows the GFC to send one message to many devices/people regardless of device to include email, dispatching/weather and other pertinent information.

The GFC continues to operate the state's first Radio Over Internet Protocol System (ROIP). It allows Radio Voice to travel over the existing state MPLS network (Data-Voice-Video share the same networks to eliminate need for expensive and unreliable long distance dedicated phone lines). This enhances monetary savings while increasing reliability of the dispatching and overall voice communications network. Localized ROIP has also been installed in specific ranger stations (office to remote hill top base station).

Even with many advances, the program still suffers from a lack of funding for optimization of all county ranger station installations, repeater sites and district offices across the state and with cooperators including USFS, USFWS, National Park Service, Florida Division of Forestry, DNR, GOAL, local fire departments and the Georgia Emergency Management Agency (GEMA).

Meteorological Support

The GFC employs a full time meteorologist who supports wildfire suppression readiness planning, burn permitting, prescribed burning and other forestry activities. The meteorologist produces fire weather forecasts, manages the National Fire Danger Rating System for Georgia and provides accurate climate data and fire weather forecasts to personnel and the general public. Twice-a-day forecasts are posted on the GFC public website. This site includes specialized fire weather information that is not produced at this scale by the National Weather Service. Emergency managers across the state may utilize the fire weather forecast for management of other disasters. The weather system is utilized daily by the GFC and is provided as a public service to predict weather activities and conditions for fire management activities. The GFC's network of weather stations includes a partnership with The University of Georgia.

Aviation Program

The GFC operates both fixed-wing and rotor-wing aircraft (Bell 407 helicopter) to detect and provide suppression support on wildland fires. The GFC has 17 fixed-wing single engine patrol planes that fly during periods of time when wildfires are probable. The GFC employs 11 full time pilots, several temporary/seasonal pilots and one aircraft mechanic who performs the majority of routine maintenance and repairs on the fixed wing aircraft fleet. The GFC maintains a memorandum of understanding with the Georgia Department of Natural Resources as a source to provide oversight of operational, maintenance and repairs to our helicopter program. In addition, the GFC has agreements with the Georgia State Patrol and the Georgia Department of Natural Resources to supply additional helicopters with water buckets to supplement our aerial water delivery operations during heightening wildfire activity.



GFC Fabrication and Repair Shop

The GFC operates a metal fabrication shop that constructs and repairs the specialized equipment, components, attachments and apparatus necessary for wildland fire equipment internally for the GFC as well as to the rural fire departments in Georgia. The GFC employs nine fabricators/welders who are proficient in welding steel and aluminum metals, wildland fire engine plumbing and pump installation and repairs and automotive/equipment painting. Thousands of dollars are saved annually by the GFC and local fire departments by utilizing the services of the GFC Fabrication Shop.

Rural Fire Defense

The GFC Rural Fire Defense program supports Georgia's fire departments by offering leased and loaned fire trucks (designed and built by the GFC) at cost. The GFC has formed strong partnerships with some 750 volunteer and rural fire departments across the state. The Federal Excess Personal Property program is currently used to acquire equipment in support of the fire program. The GFC has coordinated with the US Forest Service to participate in the Firefighter Property Program to acquire better quality equipment. Since 2012, over \$35 million of valued added assets have been acquired for both GFC and local county and city emergency management agencies. The Helping Hands program allows for purchase of low cost personal protective gear to fire departments and other fire suppression cooperators. The GFC administers Volunteer Fire Assistance grants to help small fire departments purchase training and equipment.

Wildfire Prevention and Mitigation

The GFC's Wildfire Prevention and Mitigation program is critical to the safety of Georgia citizens. Wildfires come in two forms: natural causes and human causes. The Wildfire Prevention and Mitigation program is dedicated to minimizing human fire starts. When wildland fires do occur, the program ensures a reduction in damage to life and property.

Wildfire Prevention

Wildfire prevention efforts are integral to the GFC's routine operations. Approximately \$220,000 is granted to the GFC annually through the National Fire Plan for wildfire prevention efforts.

Education

The GFC will continue with traditional fire prevention efforts using Smokey Bear and related marketing materials, youth programs in schools, community outreach programs, participation in local and statewide sporting events as well as personal and one on one contact with citizens. In addition, the GFC has established an Interagency Fire Prevention Team made up of personnel from the GFC, USFS and the US Fish and Wildlife Service as well as employees from surrounding sister states. Since its inception in 2013, the Fire Prevention Team has been deployed three times in different regions of Georgia, targeting areas where high numbers of wildfires occur. The Fire Prevention Team will continue to be a major initiative to reduce wildfires in the future.

Beginning in 2010, the GFC established a wildfire prevention program targeting the 50 counties with the highest incidence of fire. Each county developed a Fire Prevention Plan that focused on the cause of the highest percentage of fires. A scientific method for measuring program success compares reductions in the number of wildfires in a particular part of the state to reductions realized in a part of the state that is not served by this special program. Numbers of wildfires have been reduced five to ten percent in areas where this strategy has been implemented to address prevention in individual communities and counties.



Law Enforcement

Georgia laws relating to forestry and forest fire are found in Volume 10, Title 12, Chapter 6. Specifically, 12-6-80 through 12-6-93 reference forest fire prevention and control.

In 2014, the GFC Law Enforcement program responded to almost 3,200 wildfires. Of those, more than 230 were determined to be arson fires in which more than 2,400 acres burned. Over the last five years, the GFC's rangers responded to more than 630 arson fires on average per year. Arson has dropped to the third leading cause of wildfires in Georgia, behind debris burning and machine use. This reduction is a direct result of increased focus on Georgia's wildland arson problem. HB 400, which was passed during the 2008 Session of the General Assembly, stiffened penalties for wildland arson and updated the authority of GFC Investigators. One of the most important features of the bill is the creation of the Arson of Lands code section, 16-7-63. Until the law went into effect on July 1, 2008, woods arson was a misdemeanor with a maximum penalty of 12 months in jail.

To combat Georgia's arson problem, the GFC employs three full-time and three part-time investigators. The part-time investigators have other primary duties, but conduct investigations when available. All of the investigators are certified law enforcement officers with the authority to enforce the fire and forestry laws and regulations of this state. Extensive specialized training in law enforcement and fire investigation is required. The Law Enforcement program is headquartered at the GFC's central office in Dry Branch.

Special focus is placed on illegal burning. Adherence to burn permit requirements is a focal point of this effort. Unlawful burn notices are tracked to identify multiple offenses by the same person. After a third offense, the person may be criminally charged by a GFC investigator, either by a warrant or a citation.

From July 1, 2013 through June 30, 2014, the GFC investigated 80 fires. Investigations revealed 37 of those fires to be incendiary and resulted in three criminal charges being filed against suspects. Due to the limited number of investigators currently in the law enforcement program, this is only a small portion of the 236 incendiary fires reported for fiscal year 2014.

Timber Security

In 2014, GFC Investigators were authorized by [House Bill 790](#) to enforce laws related to the protection, security, conservation, and sale of forest resources. GFC receives and evaluates complaints concerning timber transactions. Investigators are assigned to complaints where criminal activity is suspected. The priority will always be to protect our landowners and their forest resources by ensuring that credible timber harvest operations occur. The GFC employs three full time investigators who share time between arson wildfire investigation and timber security complaints. It is estimated that there will be approximately 120 complaints annually from landowners for violations of timber harvesting laws and transactions.

Burn Authorizations

The Georgia Burn Permit System is one of the most effective wildfire mitigation tools. Enacted in 1988, Georgia code 12-6-90 requires a permit to be obtained from the GFC for most outdoor burning. This allows management of outdoor burning for wildfire control and for air quality concerns. Since debris burning is the number one cause of wildfires, the system allows for some control over wildfire occurrences, especially on the highest fire danger days. The GFC issues some 750,000 permits per year for leaf burning, brush pile burning, land clearing and prescribed burning. Wildfire suppression costs are charged to Georgians



who burn without a permit and allow their fire to escape. Burning without a permit is a misdemeanor, punishable by up to \$1,000 fine or one-year imprisonment.

Pre-Suppression Firebreaks

During periods of reduced wildfire conditions, fire suppression capacity is directed toward pre-suppression firebreak plowing and prescribed burning. Pre-suppression firebreak plowing plays an integral role in the fire management program by offering mitigation firebreaks to landowners at a nominal charge. Some 35,000 miles of firebreaks are installed each year.

Community Wildfire Protection Plans

In an effort to decrease wildfire risk to communities, the GFC works with several partners to identify potential risks and to provide local county governments with a comprehensive Community Wildfire Protection Plan. CWPPs are authorized and defined in Title I of the Healthy Forest Restoration Act. It was passed by Congress on November 21, 2003 and signed into law on December 3, 2003.

Georgia has completed 140 county-level plans and is currently participating in a redesign grant to successfully complete a total of 146 CWPP's. The GFC has hired three CWPP specialists to introduce the community wildfire protection planning process to the county leadership. The program is spearheaded by local interests with support from state and federal agencies and non-governmental stakeholders. The CWPP is a written document mutually agreed upon by all representatives and stakeholders that identifies high risk communities and provides instruction for mitigating wildland fire risks. CWPP's that are five years old and older are currently in the process of being updated to maintain current information so that as a community grows, the CWPP can be expanded and updated with new information.

All CWPPs have three minimum requirements:

- *Prioritized Fuels Reduction* – Identify and prioritize wildland areas for hazardous fuels reduction treatments and recommend methods for achieving hazardous fuels reductions on both private and public lands.
- *Treatment of Structural Ignitability* – Recommend measures for reducing structural ignitability throughout the at-risk community.
- *Collaboration* – Develop the plan in a collaborative effort of local and state government representatives in consultation with federal agencies and other interested parties.

Project partners include GEMA, Georgia State Firefighter's Association, Georgia Association of Fire Chiefs, U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, Department of Defense, the Association County Commissioners of Georgia and local county governments.

Firewise Communities

As a follow up to the county level CWPP, high risk communities will be introduced to the Firewise Communities/USA program. While budget reductions have eliminated the full time position to conduct Firewise workshops, local personnel are working to encourage communities to become nationally recognized. There are currently 14 nationally recognized Firewise Communities in Georgia with several nearing recognition. Communities are recognized for developing wildfire mitigation teams, funding and promoting Firewise practices and completing mitigation projects. Community members will be introduced to Firewise concepts, educating them on ways they can protect their property from the effects of wildfire.



In addition, the concept of Fire Adapted Communities has emerged within Georgia, which builds on the foundational principles of Firewise and expands to neighbors helping neighbors. It also engages local emergency response and governmental officials to consider excavation planning, local ordinances and codes to protect the population from wildfires. Currently, Towns County, GA has accomplished the Fire Adapted Community standards and is recognized on a national level as one of the eight pilot FAC's in reducing the impact of wildfires, using the combined efforts of homeowners as well as local, state, and federal agencies working together to create a community that can withstand the effects of wildfire.

Disaster Hazard Mitigation

The GFC's use of the CWPP complements the work of the GEMA's Hazard Mitigation Division. The Division provides a comprehensive threat reduction and loss avoidance program that protects people and property from their exposure to natural and technological hazards. It coordinates the update of the State Hazard Mitigation Plan and provides technical assistance to state agencies and local governments in developing their local mitigation plans and projects.

Most Georgia counties are in the process of developing plans that deal with tornadoes, floods, hurricanes, fires and other disasters. However, the fire portion only hits the high points. The CWPP will be added to the county plan to identify the specific risk areas and mitigation strategies to reduce potential fire hazards. This will give counties better access to Wildfire Pre-Disaster Grants from Homeland Security. In the event of a wildfire disaster, counties that have an enhanced wildfire hazard mitigation plan will receive a higher percentage reimbursement on disaster recovery grants.

Prescribed Fire

Georgia law, Georgia Prescribed Burning Act 12-6-145, makes provisions to protect prescribed burning as a forest management and wildfire mitigation tool and assigns the GFC as the agency for promoting prescribed burning and certifying practitioners. The Act guarantees landowners the right to use prescribed fire and protects them from liability lawsuits resulting from prescribed fire unless gross negligence can be proven.

The GFC promotes and supports prescribed fire in several ways. The Georgia Prescribed Fire Certification Program is conducted at least three times annually and has certified close to 3,400 burn practitioners across the state. The GFC's prescribed fire program also conducts several landowner workshops each year on the use of fire as a management tool, and has presented three workshops dealing specifically with the use of fire in longleaf pines.

Over one and a half million acres are burned annually in Georgia and the GFC's rangers provide burning assistance to landowners on approximately 150,000 acres each season. Burning assistance is provided for a nominal fee, mostly for forest fuels reduction burning. Training on the proper use of prescribed fire is given to rangers and material for unit and individual refresher training is available to all employees through an intranet system.

The GFC was instrumental in the founding of the Georgia Prescribed Fire Council and remains a strong supporter of the Council and its mission. Each year the Council holds an annual meeting with attendance at close to 150. The Council is a strong supporter of prescribed fire and the speakers and subject matter for each meeting is timely according to current issues. Recurring issues such as air quality are always covered.



The Georgia Prescribed Fire Council was a key player in launching the National Coalition of Councils and remains involved with that group.

Air quality is an ongoing issue for Georgia prescribed burners. The GFC wrote and submitted a Smoke Management Plan for review to the EPD Air Quality Division. The plan was accepted by the EPD and was published in July of 2008. Currently, the Smoke Implementation/Management Plan is being updated to coincide with the new EPA air quality standards, especially concerning PM 2.5. It provides greater flexibility in the use of prescribed fire and fire management as well as ensuring that public health and safety concerns are addressed. The GFC has formed a good working relationship with the EPD Air Quality Division and works to mitigate smoke impact in various ways. However, more technological systems are needed to help track smoke and determine its impact.

Georgia's prescribed fire program will cease to exist without proper funding. Given the current and forecasted budget of Georgia, funds from outside sources will be critical to keeping the prescribed fire program in Georgia alive.

Mastication Program

In 2013 the GFC received six heavy, self-propelled mowing machines through funding from the Georgia Department of Community Affairs. The purpose of these masticators is to reduce and rearrange forest fuels in and around wildland urban interface areas where prescribed fire is not applicable or desirable due to the close proximity of smoke sensitive areas. In FY 2014, there were 180 fuel reduction treatments performed on 1,450 acres in and around communities. Priority areas include recognized Firewise Communities and within areas identified within county-level Community Wildfire Protection Plans. Based on the number of requests for this service, there is a high level of demand for this type of fuel reduction. A list of contractors who can provide this service to landowners and communities is being developed to encourage more participation and to increase the number of acres treated where prescribed fire cannot be safely applied or isn't desired due to smoke related issues.

Incident Management

The fire management training regimen produces forest rangers that methodically become incident commanders capable of providing much more than just fire management services for local communities. The National Incident Management System (NIMS) was adopted by the GFC in the mid-1980s, with most employees currently nationally qualified for incident management positions. The GFC maintains Georgia's only nationally qualified Type II Incident Management Team (IMT), and in cooperation with GEMA and GPSTC, advise and provide NIMS training for selected Georgia participants. Georgia's Type II IMT was

established in 2003 and has responded to some 20 national incidents from hurricanes to wildfires. A specific partnership with GEMA and Department of Homeland Security has given the GFC an opportunity to become an all risk agency. Because of the GFC's training and knowledge in the Incident Command System (ICS), GEMA has recruited the agency in several aspects of emergency management and specifically as the lead agency for logistics in the event of any disaster in Georgia. The GFC is the only state agency other than GEMA assigned to the command staff at Georgia's state operations center (SOC), being tasked with logistics for all incidents. The GFC is also tasked with Federal Response Plan Emergency Support Function, ESF 4, Firefighting for the state. The GFC's presence at 120 locations across the state, incident management qualifications, radio communications capability, equipment and transportation fleet, air operations capability



and experience working many disasters gives the agency recognition as a powerful asset for emergency management. The GFC Type II IMT trains regularly with GEMA in preparation for hurricane relief in case of landfall on Georgia's coast.

Priority Areas

Although the state has determined priority areas defined by the most contiguous stands of forest, it is on the fringes or the Wildland Urban Interface (WUI) where fire becomes a priority. Driven by the fact that the majority of wildfires are caused by humans, program priorities lie closest to populated areas. These risk areas are better determined by using the Southern Wildfire Risk Assessment. Wildfire Susceptibility Index and the Fire Effects Index are used to calculate the level of concern (LOC) reflecting a measure of wildfire risk. In addition, SouthWRAP was released in 2014. It provides a better visual projection of the Southern Wildfire Risk Assessment, which helps fire managers and community leaders identify wildland urban interface areas that are highly susceptible to wildfires. The countywide CWPP is based on the SWRA data being partitioned by counties. Priority areas were developed using the fire occurrence and SouthWRAP information to target specific areas of concern using limited fire prevention and hazardous fuel reduction funds.

Specific programs such as the Community Protection Grant are tied to state priority areas where property is located in the vicinity of USFS property. These areas coincide with the Blue Ridge, Ridge and Valley and the Fall Line. The Okefenokee GOAL grant targets areas in and around the Okefenokee Swamp which coincide with the Atlantic Coastal Plain. Wildlife management programs such as the Northern Bobwhite Conservation Initiative have identified the East Gulf Coastal Plain and Large River Bottomlands as a priority area. The longleaf pine savanna is a target ecosystem for prescribed fire and these priority areas overlap those already mentioned.

Goals, Objectives and Strategies

Goal 1: Maintain an effective fire suppression capacity.

Objective 1.1: Maintain appropriate resources for fire occurrence and workload.

Strategy 1.1.1: Analyze fire trends and suppression needs.

Strategy 1.1.2: Evaluate equipment and training program.

Strategy 1.1.3: Expand program to recruit, retain and train rangers.

Strategy 1.1.4: Continue the Georgia Basic Wildland Firefighter course.

Strategy 1.1.5: Strive to reduce the average wildfire size to less than five acres.

Strategy 1.1.6: Provide forest rangers with adequate firefighting equipment and communications systems.

Strategy 1.1.7: Update aging fleet of front line vehicles and fire apparatus.

Strategy 1.1.8: Improve dispatch and communications capability with fire line personnel.

Strategy 1.1.9: Incorporate new programs in Federal Excess property to assist partners in getting adequate wildland fire equipment.

Strategy 1.1.10: Continue to support the Fabrication Shop operations to ensure fire suppression equipment is maintained and repaired efficiently.

Objective 1.2: Provide adequate communications support.

Strategy 1.2.1: Connect all districts to "Interoperability VHF radio" network accessing



USFS/USFWS/NPS dispatching channels utilizing the GEMA “Moto-Bridge” Statewide Interop System.

- Strategy 1.2.2: Participate in the statewide, state agency radio planning group to assist the 66 agencies in coordinating efforts to share resources to reduce costs in state communications systems.
- Strategy 1.2.3: Solve coverage problems and penetrate the canopy across south central, southeast, and mountainous areas of Georgia.
- Strategy 1.2.4: Solve coverage problems and penetrate the canopy across rugged north central Georgia with Central North Georgia Link.
- Strategy 1.2.5: Continue to acquire radio and communication equipment to modernized communication within the GFC and with our partners.

Objective 1.3: Provide adequate fire weather forecasting.

- Strategy 1.3.1: Remain current on weather systems and technology.
- Strategy 1.3.2: Develop a Fire Readiness/Preparedness System in Georgia that indicates the level of potential for wildfire occurrence to optimize the efficiency of wildland fire personnel and equipment.

Objective 1.4: Enhance the Rural Fire Defense Program.

- Strategy 1.4.1: Maintain equipment fabrication and Helping Hands programs.
- Strategy 1.4.2: Continue to support the Firefighter Property Program in Georgia.

Goal 2: Enhance fire prevention and mitigation programs.

Objective 2.1: Increase activity in community wildfire planning.

- Strategy 2.1.1: Complete 146 CWPPs over the next two years.
- Strategy 2.1.2: Utilize information gathered from countywide CWPPs to target high risk communities for Firewise USA program.
- Strategy 2.1.3: Incorporate CWPPs into County Enhanced Mitigation plans.
- Strategy 2.1.4: Target mitigation projects through pre-wildfire disaster grants.
- Strategy 2.1.5: Update CWPP’s that are five years old.
- Strategy 2.1.6: Utilize the Southern Wildfire Risk Assessment Portal (SouthWRAP) to identify high risk wildland-urban interface on which to focus fire prevention efforts.

Objective 2.2: Educate Georgia citizens on fire prevention.

- Strategy 2.2.1: Continue 50-County Fire Prevention Plan Program.
- Strategy 2.2.2: Present Firewise and Fire Adapted Community concepts to members of high risk communities.
- Strategy 2.2.3: Continue to provide individual home and community risk assessments.
- Strategy 2.2.4: Produce and deliver fire prevention messages and programs to educate the public on preventing fires and benefits of mitigation.
- Strategy 2.2.5: Utilize Fire Prevention teams to provide fire prevention information to homeowners, evaluate risk to individual homes and provide assessments of



findings.

Objective 2.3: Improve GFC Law Enforcement presence as a fire prevention and timber security tool.

Strategy 2.3.1: Provide adequate equipment, training and personnel for the GFC LE program.

Strategy 2.3.2: Utilize fire report data to develop specific LE activities in areas where there is high incendiary activity.

Strategy 2.3.3: Continue to network within the Southern Area (SGSF) Wildland Arson Taskforce to share information, training and to supplement or enhance fire investigations across state lines.

Strategy 2.3.4: Develop an internal GFC succession planning program to train and prepare potential LE program candidates for the future.

Objective 2.4: Increase activity on current mitigation programs.

Strategy 2.4.1: Improve the Burn Authorization program by enhancing the computerized database.

Strategy 2.4.2: Increase plowing and burning activity on private and public lands.

Strategy 2.4.3: Continue to engage the masticator program in priority areas to mitigate the threat of wildfires to communities at risk.

Objective 2.5: Implement the Prescribed Burn Strategic Plan.

Strategy 2.5.1: Implement a focused and effective communication and education campaign for garnering informed public support, status and recognition.

Strategy 2.5.2: Manage smoke from prescribed fire to minimize impacts on air quality and highway traffic.

Strategy 2.5.3: Increase incentives and financial assistance to land managers using prescribed fire.

Strategy 2.5.4: Acquire sufficient resources to promote and implement prescribed fire operations on public and private lands.

Strategy 2.5.5: Take a more proactive role in growth management to mitigate future impacts of increasing urbanization.

Strategy 2.5.6: Enhance the professionalism of prescribed fire practitioners.

Strategy 2.5.7: Expedite the transfer of new prescribed fire technology to field use.

Strategy 2.5.8: Produce innovative grant applications to acquire prescribed fire grants such as Community Protection and Okefenokee GOAL.

Goal 3: Advance incident management capabilities.

Objective 3.1: Provide adequate training to maintain a Type II Incident Management Team.

Strategy 3.1.1: Support and maintain a training program to keep a nationally qualified Type II Team active and current for both fire and all-risk incidents.

Objective 3.2: Provide adequate training to maintain GEMA SOC representation.

Strategy 3.2.1: Maintain a viable training and retention program for potential and active logistics staff.



Objective 3.3: Enhance interagency partnerships for incident response in Georgia.

Strategy 3.3.1: Provide incident management training for selected Georgia participants.

Performance Measures:

Number of CWPPs

Number of Firewise Communities

Number of Fire Adapted Communities

Average size of wildfires

Number of prescribed burned acres Number of Type II IMT participants

Number of arson cases investigated and arrests made

Hours of pre-suppression firebreaks installed

Acres of fuels treated with masticators



Forest Health

Program Description

Protecting the health of Georgia's forest and all it represents is a top priority of the GFC. Statewide aerial pest surveys are conducted annually for the detection of various forest pests. Areas of dead and dying trees are noted during this survey and checked by professional foresters to determine the cause and extent of the mortality. Landowners are notified with appropriate advice to minimize future damage.

The most common forest pests detected with the surveys are pine bark beetles. Damage caused by other insects or diseases, wildfire or weather events are all closely monitored. Foresters and chief rangers provide the majority of forest health assists to Georgia landowners. The GFC Forest Health staff provides support for issues that are not easily diagnosed or occurring on a regional scale. This staff provides both field support and technical outreach to land managers to alert them of any regional issues, train them to recognize them and offer advice to minimize impacts.

Forest Health program emphasis will be placed upon southern pine beetle, hemlock woolly adelgid, laurel wilt, annosum root disease and cogongrass. These forest health threats are causing widespread mortality and negative economic impacts in Georgia. The staff conducts and oversees a variety of other pest surveys to detect the presence of insects, diseases and unwanted plants that have the potential to harm forests. These surveys include: sudden oak death, gypsy moth, *Sirex* woodwasp, emerald ash borer, Asian longhorn beetle and other nonnative bark beetles. Detailed strategies are presented on pages 9 and 10 of this document.

Goal 1: Maintain capacity to monitor and manage forest health pests.

Objective 1.1: Make annual predictions about SPB and HWA population levels and potential damage and implement management practices.

Strategy 1.1.1: Administer USFS cost-share program to enhance the health of pine forests.

Strategy 1.1.2: Coordinate with USFS and DNR in surveys and treatment programs that target significant stands of hemlock or high-value trees.

Objective 1.2: Make annual predictions and provide information to relevant audiences about incidence of laurel wilt, annosum root disease and invasive species.

Strategy 1.2.1: Conduct surveys to monitor incidence.

Strategy 1.2.2: Provide technical information to landowners.

Strategy 1.2.3: Organize an Invasive Species Council.

Goal 2: Increase capacity to protect forests from impending critical pests that pose serious threats.

Objective 2.1: Continue and/or implement new monitoring systems.

Strategy 2.1.1: Deploy 3,000 - 5,000 traps per year to detect the presence of gypsy moth.

Strategy 2.1.2: Implement APHIS-funded emerald ash borer trapping program.

Performance Measures:

Number of landowner assists.

Number of surveys.



Forest Legacy

Program Description

In 1990, the Forest Legacy Program (FLP) was one of several programs established to promote the long-term integrity of forest lands. The Secretary of Agriculture was directed to establish a FLP in cooperation with state, regional and other units of government. In carrying out this mandate, the Secretary has been authorized to acquire lands and interests in lands through fee purchases or conservation easements in perpetuity for inclusion in the FLP. Landowner participation in the Program, including the sale of lands and interests in lands, is entirely voluntary.

The majority of Georgia's productive forest lands are in private ownership. These private landowners are facing increased pressure to convert their forest lands to other uses. Greater population density and user demands are placing increased pressures on private lands to provide a wide variety of products and services including fish and wildlife habitat, aesthetic qualities, timber and recreational opportunities.

Good stewardship of privately held forest lands requires a long-term commitment that can be fostered through a partnership of federal, state and local government efforts with land trusts and other non-governmental conservation organizations.

The GFC is the lead agency for the FLP and concurs on all aspects of the *Georgia Statewide Assessment of Forest Resources* that pertain to the program, including the identification of Forest Legacy Areas (FLAs). [*Georgia's Forest Legacy Assessment of Need \(AON\)*](#) is in accordance with the approval process that is required for FLP. The Forest Legacy Committee, comprised of members of the State Forest Stewardship Coordinating Committee and natural resource agencies and organizations with conservation easement experience, developed the [AON document](#). Six FLAs were designated by the committee. Current demographic trends were analyzed along with other selection criteria as set forth in the Cooperative Forestry Assistance Act to give priority to lands as follows:

Forest Legacy Area Selection Criteria

The Forest Legacy Committee uses the following criteria when determining a potential FLA:

1. Forested areas threatened by conversion to nonforest use, in both the near and long term;
2. Forest resources including:
 - a) Aesthetic and scenic values;
 - b) Fish and wildlife habitat, including threatened and endangered species;
 - c) Minerals resource potential;
 - d) Public recreation opportunities;
 - e) Soil productivity;
 - f) Timber management opportunities;
 - g) Watershed values;
 - h) Native plant communities; and
 - i) Connectivity to other significant areas.
3. Historic uses of forest areas, trends and projected future uses of forest resources;
4. Current ownership patterns and size of tracts, and trends and projected future ownership patterns;
5. Cultural resources that can be effectively protected;
6. Outstanding geological features;



7. Demographic trends as they relate to conversion of forest areas; and
8. Other ecological values.

Eligible forest lands must be working forests. A working forest is defined as forest land from which specific objectives are derived following the stewardship principles that address timber management, wildlife management, soil and water conservation, recreation and aesthetics.

FLA boundaries must encompass forest lands with significant environmental and other resource-based values. Areas may also include nonforested areas such as farms and villages if they are an integral part of the landscape and are within the logical boundaries. Since FLA boundaries may not always correspond to property boundaries, tracts located partially within the geographically defined FLA are eligible for the Forest Legacy Program upon approval of a boundary adjustment.

An Assessment and Strategy for FLP is needed to:

1. Document the need for a Forest Legacy Program in Georgia;
2. Identify and delineate the boundaries of forest areas meeting the eligibility requirements for designation as FLAs;
3. Recommend areas to the USFS/Secretary for inclusion in the FLP; and
4. Serve as the current update for the original AON document that was drafted at the program's onset.

The forest stewardship steering committee was convened to address how the new assessment and strategy would incorporate the existing AON for legacy. The committee reviewed the current AON, provided content for the assessment and considered the delineation of priority areas. The committee decided that significant overlap of interests was present and that the current AON would not need further changes.

Goals, Objectives and Strategies

Goal 1: Conserve environmentally important forest areas that are threatened by conversion to nonforest uses by capitalizing on the collective capacity of various organizations.

Objective 1.1: Leverage multiple partnerships with various land trust and conservation organizations to expand the possibilities for land conservation acquisitions.

Strategy 1.1.1: Develop MOUs and other partnership agreements with The Conservation Fund and other groups to facilitate the acquisition of property.

Performance Measure:

Number of acres of protected forest land.



Forest Stewardship

Program Description

The Georgia Forestry Commission has developed many issue specific programs including Forest Health, Water Quality, Utilization and Marketing, Sustainable Community Forestry and Conservation Education to address specific resource concerns. The Forest Stewardship Program (FSP) serves as an umbrella program in that all of the issues and multiple resource concerns relevant to a particular property are addressed through the development of a forest management plan as well as targeting outreach efforts through partnerships with many nongovernmental organizations (NGOs). A description of the state stewardship program requirements is presented in [*Georgia's Forest Stewardship Plan*](#).

Georgia Forest Stewardship Coordinating Committee (SCC)

The SCC can be made up of but not limited to representatives from GFC, Georgia DNR Wildlife Resources Division, Georgia Soil and Water Conservation Commission, USDA Natural Resource Conservation Service, U.S. Forest Service, USDA Farm Service Agency, University of Georgia Cooperative Extension Service, forest landowners, the University of Georgia Warnell School of Forestry and Natural Resources, consulting foresters, Georgia Forestry Association, local governments, The Nature Conservancy, Georgia Wildlife Federation, National Wild Turkey Federation, Quality Deer Management Association, Southern Group of State Foresters, Georgia DNR Real Estate Division, The Georgia Land Trust Service Center, Georgia Conservancy, The Conservation Fund, Association of County Commissioners of Georgia and the Forest Landowners Association coordinates Georgia's Forest Stewardship Program. The committee provides assistance and recommendations concerning development, implementation, monitoring and updating of Georgia's Forest Stewardship Plan.

Landowner Eligibility

Georgia's FSP focuses on providing services to owners of non-industrial private forestlands (lands owned by any private individual, group, association, corporation, Indian tribe or other private legal entity) not currently managing their forestland according to a resource management plan. Ownerships must be at least 10 acres in size with 10 acres in woodlands. There is no upper limit to acreage size. Those landowners not meeting the minimum tract size criteria may petition the SCC to be included in the program.

Non-industrial private forestlands that are managed under existing federal, state or private sector financial and technical assistance programs may be eligible for assistance under FSP. The landowner must agree to comply with the requirements of the program and if forest resource management activities on such forestlands are expanded or enhanced, the changes must meet the requirements of Georgia's FSP.

Forestlands other than non-industrial private lands (public, forest industry, etc.) may also be enrolled in the program, but priority in providing technical assistance under the program will remain on non-industrial private lands. More focused outreach will be implemented for landowners falling in designated priority focus areas.

Landowner Enrollment

Plan writers, which could include consulting foresters, wildlife biologists and/or GFC foresters, will respond to interested landowners by meeting with the landowners and/or their representatives (consulting and industry foresters) to discuss the concept of stewardship forestry, including the many benefits stewardship management provide to the individual, society in general, and the world as a whole. Those landowners



interested in pursuing stewardship management of their property will be enrolled in Georgia's Forest Stewardship program. Once enrolled, the landowner will be asked to specify a primary and a secondary management objective, such as timber production, wildlife management, soil and water conservation, recreation, aesthetics or equal emphasis on all of these objectives. All plans are free of charge for the landowner.

Forest Stewardship Plan

Once a landowner selects primary and secondary management objectives, plan writers direct the development of a Forest Stewardship plan which addresses the landowner's objectives, provides recommendations for multiple resource management and meets the standards of the program. If the primary author of the plan is a resource professional other than an employee of one of the cooperating government agencies, then the district Stewardship forester works closely with that professional to ensure the standards for Forest Stewardship plans are thoroughly understood by the professional, including the interaction of landowner objectives with plan content. The final plan will be reviewed by the specialist forester or CDI Stewardship forester. Their signatures are necessary to approve the plan.

If the plan is written by resource professionals from the cooperating government agencies, then the district Stewardship forester will obtain copies, if available, of any management or conservation plans already written for the property in question. In the event that no written management plan exists, or if existing plans fail to address the basic requirements of stewardship management, the forester will coordinate the development of a new forest stewardship plan, working closely with field personnel from the Georgia Department of Natural Resources, Game and Fish Division, the USDA Natural Resource Conservation Service, The University of Georgia Cooperative Extension Service and others with an interest and expertise in stewardship management. The same standards and certification requirements will be followed for these plans. The district Stewardship forester will ensure that the plan is well reviewed with the landowner, with special emphasis given to how the landowner implements the plan's recommendations. Cooperating agency personnel will be notified and should try to participate in this plan review. The plan should include an exhaustive list of sources of assistance available in the various aspects of multiple use management.

Maintaining Landowner Contact

Landowner contact will be maintained through a variety of methods. There are many continuing education opportunities for landowners who enroll in the Forest Stewardship Program such as field days, landowner workshops, magazine subscriptions, issue targeted mailers, and landowner conferences. Through the implementation of evaluations and renewal plans, personal contact will be made with landowners whose plans are 10 years old or older by GFC foresters as well as consultants. By maintaining personal contact, opportunities for continued landowner assistance will be enhanced. When landowner accomplishments under their plan reach a suitable level, a nomination for Forest Steward designation is appropriate.

The state Forest Stewardship coordinator directs an annual audit. The number of plans reviewed are determined based on a statistically accurate sample size that ensures fairness. Each tract audited is evaluated for implementation of the plan's recommendations. Certified Forest Stewards are audited at this time as well. The audit includes review of the plans, site visits and interviews with landowners enrolled in the program. This effort is reflected in the annual report made to the U.S. Forest Service each year.



Nominations for Forest Steward Designation

Nominations for Forest Steward designation may come from any source and be forwarded to the district Stewardship forester. Nominations should be written and include the landowner's name, address, telephone number and a brief description of all lands owned by that individual (including county and size). Also included will be the nominator's name, address, telephone number and professional affiliation, if applicable. The Stewardship specialist may also actively solicit nominations from other resource professionals in cooperating agencies as well as consultants, industry foresters and others.

Goals, Objectives and Strategies

The *Georgia Statewide Assessment of Forest Resources* more clearly defines geographical features and resource issues that are a priority for the state to address. Georgia's FSP will leverage the limited financial and human resources available to address the most compelling issues and obtain the greatest gains in fostering the wise stewardship of NIPF lands.

Goal 1: Conserve working forest landscapes for multiple values and uses.

Objective 1.1: Utilize the Stewardship Modernization Process to reflect work accomplishments

Strategy 1.1.1: Recognize 50 percent of the eligible landscape priority acres as the initial delineation of a priority for program delivery and budget available funds for the creation of new or revised plans.

Strategy 1.1.2: Adopt and implement the new allocation formula developed by the USFS to ensure funds for plan development.

Goal 2: Enhance environmental and economic benefits of trees and forests.

Objective 2.1: Continue to promote a landscape level approach to program delivery.

Strategy 2.1.1: Develop and adopt a statewide landscape management plan.

Strategy 2.1.2: Identify landscape scale projects in priority areas to implement program delivery.

Objective 2.2: Increase the acres of "Certified" sustainable forestland.

Strategy 2.2.1: Increase the number of Certified Stewards and encourage each Certified Steward to obtain certification from Tree Farm, SFI or other approved programs.

Strategy 2.2.2: Incorporate all state lands into the FSP.

Goal 3: Promote outreach efforts with multiple governmental and nongovernmental partners.

Objective 3.1: Leverage the collective capacity of many different organizations to implement the program.

Strategy 3.1.1: Develop working agreements, contracts and MOUs with complementary organizations for mutual promotion of benefits.

Strategy 3.1.2: Conduct field days and other outreach efforts to creatively catch the attention of forest landowners.



Goal 4: Improve and streamline information delivery to landowners and resource professionals.

Objective 4.1: Increase the number of landowners provided with information in a timely manner.

Strategy 4.1.1: Develop fact sheets and recommendation articles that address resource concerns in a clear and easily understandable format.

Strategy 4.1.2: Develop a web outlet where relevant information can be obtained easily.

Strategy 4.1.3: Develop a mobile app to make information readily available for resource professionals.

Performance Measures:

Number of new or revised Forest Stewardship management plans completed.

Number of new or revised Forest Stewardship management plans completed in priority areas.

Number of acres covered by current Forest Stewardship management plans (cumulative).

Number of acres in priority forest resource areas covered by current Forest Stewardship management plans (cumulative).

Number of landowners receiving FSP technical assistance.

Number of landowners participating in FSP educational programs.

Total number of acres in important forest resource areas being managed sustainably, as defined by a current Forest Stewardship management plan (cumulative/as confirmed through a monitoring program as described above).



Sustainable Community Forestry Program

Program Description

While most traditional forestry programs serve the individual rural landowner, the GFC's Sustainable Community Forestry Program (SCFP) concentrates its efforts on the largest segment (73 percent, 2000 U.S. Census) of Georgia's population: those people who live in urban and interface communities across the state.

SCFP Foresters program activities include enhancing tree health, increasing the understanding of the benefits of trees, promoting tree canopy conservation and the connection of fractured parcels of forests to create a contiguous canopy between urban cores and rural hinterlands. Other areas of focus include:

- Providing educational programs and technical assistance to communities, state and local organizations (including community associations and schools), arborists, planners, developers and elected leaders on maintaining forested lands and individual trees in urban and community settings and identifying appropriate tree species and sites for expanding forest cover;
- Helping cities prepare for storms through urban forest management planning that includes preparation, response and recovery methods;
- Assisting communities in the development of stormwater policies and mitigation techniques;
- Providing financial assistance through competitive matching grants awarded to local governments, nonprofit organizations and educational institutions for urban and community forestry projects, demonstration projects and tree planting.

The Five-Year Plan for Georgia's Urban & Community Forest provides strategic direction for Georgia's urban and community forestry programs. The planning committee, convened by the GFC in partnership with the Georgia Urban Forest Council, includes representatives of local, state and federal governments, universities, businesses, non-profit organizations and military installations. The Plan details priority goals to value, conserve, manage and enhance Georgia's community forests and is congruent with SCFP's goals.

Goals, Objectives and Strategies

Goal 1: Continue to foster strong partnerships with various organizations, city and county governments and the Georgia Urban Forest Council and reach target audiences through social networking and communications.

Objective 1.1: Maintain relationships between the Urban & Community Forestry Coordinator, Partnership Coordinator and SCFP staff and local partners.

Strategy 1.1.1: Invite current and new partners to training and planning sessions periodically for input and review.

Strategy 1.1.2: Utilize new methods to enhance communication and networking in addition to the *Regional Communications Plan for U&CF*.

Strategy 3.1.1: Continue to offer Georgia Grove.org as a statewide and regional resource. The Grove offers the opportunity for GUFC and GFC to connect with businesses, media and corporations, which can lead to a sustained funding source.



Goal 2: Improve urban forestry knowledge.

Objective 2.1: Offer incentives to attend and provide open communication about training opportunities to external partners and GFC professionals.

Strategy 2.1.1: Offer training opportunities to external partners and internally for SCFP foresters, foresters and rangers on Urban Forest Strike Teams for Storm Response utilizing *Changing Roles in the Wildland-Urban Interface* and the *Urban Forest Manual*.

Strategy 2.1.1: Continue to bring current speakers and programs to Georgia to talk about current trends and innovations to attract attendees.

Strategy 2.1.2: Continually refer to the natural resource issues identified in the State Assessment Issues section for more information about issues and trends.

Goal 3: Increase the number of Tree City USA communities participating in Georgia’s program.

Objective 3.1: Increase participation by 10 Tree City USAs per year for the next five years.

Strategy 3.1.1: Further develop Tree City USA recognition and incentives.

Goal 4: Increase participation of communities in priority areas in community forest management through comprehensive planning strategies.

Objective 4.1: Increase the number of priority area communities participating in community forest management at the Developing Level (measured by CARS) by five percent per year.

Strategy 4.1.1: Work with allied partners to train and educate target audiences in community forest management. Develop educational programs and training for target audiences defined in communications plans, as well as for specific needs of the community.

Strategy 4.1.2: Establish and administer a Georgia Tree City USA Recognition Program for various levels of community forest management. Recognize these efforts at the annual GUFC awards conference, utilizing U&CF funding to allow scholarships to be provided for attendance to GUFC quarterly meetings or other arboricultural activities during the year.

Strategy 4.1.3: Offer tree ordinance programs and technical support to develop new ordinances or revise existing ones.

Strategy 4.1.4: Compose or link to a web based “What’s eating my tree?” series of fact sheets to address insect and disease issues as well as construction related topics, storm damage and other issues.

Goal 5: All Georgia communities recognize the public health benefits of trees.

Objective 5.1: Encourage communities to take an active role in promoting the benefits of trees.

Strategy 5.1.1: Continue to develop and administer health-based educational programs such as “Making the Shade” which is designed to improve the physical health of students by strategically planting shade trees around elementary school



playgrounds. The program helps reduce surface temperatures of playground equipment which can lead to severe burns, helps reduce the amount of ultraviolet radiation reaching the students and improves air quality. (U)

Strategy 5.1.2: Partner with allied groups including Milliken & Company, the Society of Municipal Arborists, the Association County Commissioners of Georgia, Department of Community Affairs and numerous other groups in the green industry to promote health benefits of trees. (U)

Goal 6: Communities are prepared to respond to storm damage events with forest health in mind.

Objective 6.1: Increase community preparedness and have storm damage mitigation plans in place prior to storm events.

Strategy 6.1.1: Continue Urban Forest Strike Team training and deployment. Several GFC SCFP foresters have gone through USFS Urban Forest Strike Team training and have been on assignment with the team. These professionals can provide storm damage response training to other foresters and Certified Arborists in Georgia so that, in the event of a severe storm, the evaluations could be conducted using in-state personnel and resources.

Performance Measures:

In the 2009 U.S. Forest Service Community Accomplishment Reporting System (CARS), it was reported that 44.25 percent of Georgia's population lived in communities **managing** level programs to plant, protect and maintain their urban and community trees and forests. It was also reported that 34.13 percent of Georgia's population lived in communities **developing** level programs and/or activities to plant, protect and maintain their urban and community trees and forests.

Managing level programs have all of the following standards:

- 1) Active urban & community tree and forest management plans developed from professionally-based resource assessments/inventories;
- 2) Employ or retain through written agreement the services of professional forestry staff;
- 3) Local/statewide ordinances or policies that focus on planting, protecting and maintaining their urban and community trees and forests; and
- 4) Local advocacy/ advisory organizations, such as, active tree boards, commissions or non-profit organizations that are formalized or chartered to advise and/or advocate for the planting, protection and maintenance of urban and community trees and forests.

Developing level programs have a management plan and a tree ordinance or policy.



Water Quality Program

Program Description

The GFC has served as the lead agency to develop, educate, implement and monitor the use of Best Management Practices (BMPs) for forestry operations since 1977. To minimize erosion and stream sedimentation from forestry practices, the GFC has an agreement with the Environmental Protection Division (EPD) of the Georgia Department of Natural Resources to serve in this capacity. Under the same agreement and through an understanding with the U.S. Environmental Protection Agency (EPA) and the Army Corps of Engineers, the GFC also monitors BMP implementation and investigates and mediates water quality and wetland complaints resulting from forestry practices.

The BMPs were first developed in 1981 and were updated in 1999 and 2009. Upon passage of the Clean Water Act (CWA) Amendments of 1987, EPA issued guidance on the relationship of nonpoint source controls and water quality standards as part of the Water Quality Standards Handbook. The guidance states: *"It is recognized that Best Management Practices, designed in accordance with a state approved process, are the primary mechanisms to enable the achievement of water quality standards. It is intended that proper installation of state approved BMPs will achieve water quality standards and will normally constitute compliance with the CWA."*

The GFC is responsible for monitoring BMPs at all forestry operations in 272 separate 12-digit Hydrologic Unit Code (HUC) watersheds that total 2,716 miles of streams with targeted TMDL reductions. Since 2003, the GFC has conducted approximately 400 BMP field examinations on active ongoing forestry operations annually. This is part of a voluntary BMP Assurance Exam Program that was funded through a Section 106 federal grant from EPD. In fiscal year 2009, a water quality risk reduction rate of 95 percent was recorded on the sites examined.

Additionally, forestry is the only land use practice in the state that monitors BMP implementation through random stratified surveys. The surveys, which are conducted by the GFC, have shown that implementation rates have increased from 64.9 to 94.1 percent from 1991 through 2009. The protocol for monitoring follows the Southern Group of State Foresters framework. Results of these surveys are reported to the EPD and EPA and can be broken out by river basin or sub-basin down to 12-digit HUCs.

Training

Based on information supplied by the Georgia Department of Revenue, the GFC estimates seven to ten thousand forestry operations are conducted on some 790,000 acres per year. To protect Georgia's water resources, it is critical for forest landowners, foresters and harvesters to understand and follow forestry Best Management Practices.

The GFC provides BMP training for approximately 100 new loggers each year at Master Timber Harvester (MTH) Workshops. MTH training is an intensive educational process which includes instruction in water quality protection and BMPs. As of April 2010, a total of 3,467 people have attended the MTH workshop. There is a biennial educational requirement to maintain MTH status. As of April 2010, 1,564 people have maintained their educational requirements. Most forest industries in Georgia are members of the Sustainable Forestry Initiative (SFI) and require harvesters who deliver forest products to their facilities to be MTH-trained. Harvesters who do not follow BMPs can be reported to regulatory authorities and the SFI State



Implementation Committee. Individual member companies can refuse to allow deliveries from these harvesters. This self-regulation approach has been very effective in encouraging implementation of BMPs and, as a result, is helping to ensure the future sustainability of water quality and quantity from Georgia's forest land.

The cost to implement the program of BMP education, complaint investigation, field advice and biennial statewide BMP surveys under the Continuing Forestry Nonpoint Source Pollution program in Georgia currently averages \$415,000 per year. Funding from the EPD averages \$150,000 per year with a required match of \$100,000 per year from the GFC. Consequently, the GFC over matches by an average of \$165,000 per year.

Goals, Objectives and Strategies

Goal 1: Improve water quality in Georgia.

Objective 1.1: Increase the overall statewide BMP implementation rate from 94.1 percent to 97 percent by 2012 (based on the results of the 2009 Statewide BMP Implementation Survey).

Strategy 1.1.1: Conduct a statewide biennial Silvicultural BMP Survey of over 200 sites in 2012 to determine rates of implementation and to target landowner groups and physiographic regions of the state for increased education.

Strategy 1.1.2: Offer technical forestry assistance to state and local government members of the Regional Water Council Plans as a part of Statewide Water Management Plan, TMDL implementation planning, the State's Nonpoint Source Management Program and Coastal Nonpoint Source Management Program, as well as with local county ordinances.

Strategy 1.1.3: Provide on-the-ground technical BMP assistance in approximately 800 forest management plans for landowners.

Objective 1.2: Increase the number of stream miles in compliance with BMPs from 93 to 95 percent by 2012 (based on the results of the 2009 Statewide BMP Implementation Survey).

Strategy 1.2.1: Provide approximately 80 Continuing Logger Education Workshops that focus on avoiding stream crossings in response to the results of the 2009 Statewide BMP Survey.

Strategy 1.2.2: Demonstrate the proper techniques of installing stream crossings and proper forest road construction at several field locations. The use of portable timber bridges purchased by the Southeastern Wood Producers Association through a grant from the USFWS and through the RC&D program will be demonstrated and made available to harvesters in the Etowah and Conasauga River Basins and across the state.

Objective 1.3: Increase BMP awareness in the forest community.

Strategy 1.3.1: Provide general BMP training to over 300 new loggers at 10 Master Timber Harvester Workshops.



Strategy 1.3.2: Provide training for GFC personnel to better understand the potential impacts of forestry operations on water quality.

Strategy 1.3.3: Conduct forestry field days for landowners in Griffin and Milledgeville to demonstrate vegetation management, stream bank stabilization, grade stabilization, road sediment control and the proper techniques of installing stream crossings.

Strategy 1.3.4: Offer local BMP education and information programs to the forestry community and government planning agencies.

Objective 1.4: Provide quick and efficient investigation and mediation of forestry complaints called in by the public.

Strategy 1.4.1: Continue to investigate and mediate approximately 200 forestry complaints yearly on behalf of EPD and/or EPA.

Strategy 1.4.2: Maintain a list of complaints for public record and for SFI members to evaluate BMP compliance of loggers hauling wood to their facilities.

Performance Measures:

Number of BMP workshops and number of participants.

Number of water quality-related training courses completed by GFC foresters.

Number of forest management plans that include BMP advice.

Number of Silvicultural BMP Surveys completed.

Percent increase of correctly installed firebreaks.

Number of forestry-related water quality complaint investigations and mitigations.

Number of Regional Water Council plans with analysis and recommendations from the Biennial Silvicultural BMP Survey and resource data from USFS statistic reports.

Percent reduction of significant water quality risks from BMP Assurance exams.



Forest Utilization and Marketing

Program Description

The Forest Utilization and Marketing Department is charged with facilitating the increase in forest product values and ecosystem services values in Georgia so that landowners have incentives for investment in reforestation and forest management.

The decline of the forest industry and forest resource values early in this decade resulted in recommendations to increase the GFC's efforts to develop new markets and products, such as energy products and bio-based materials. These recommendations were made by a joint legislative study committee on the "Future of Forestry" by the strategic industries technical advisory committee within the Governor's Commission for a New Georgia and by a State Forester's Task Force. A small three-person staff began in 2004 followed by three additional persons in 2007 with charges of specific focus areas in bioenergy and carbon sequestration. The Forest Utilization and Marketing Department operated with a six-person staff through 2009, but has been reduced to four persons as a result of funding limitations. The services and values below relate to the programs within the department.

Services

- Act as forestry and biomass feedstock specialists for new and expanding industries by monitoring current forest resources utilization rates, providing analysis and reports of available timber and biomass resources to specific mill sites and maintaining lists of biomass and timber suppliers available to supply new and expanding industries.
- Act as "forestry" specialists in assisting economic development organizations with attracting and developing new forest and bioenergy industries.
- Conduct surveys of the forest industry to determine local timber drain amounts, economic impacts and information useful for a Forest Products Marketing Directory.
- Market Georgia's forest products and resources domestically and globally using web-based and printed directories, business missions and individual visits.
- Facilitate and assist with forest and biomass-based research, demonstration and policy measures such as pellets-to-poultry and the wood residuals tax credit certification system.
- Develop and operate the Georgia Carbon Sequestration Registry.
- Monitor carbon forest offset rules and related regulations and educate forest landowners and forest managers on opportunities to participate in carbon offset projects.
- Work with other agencies, companies and organizations to identify potential partnerships to reduce greenhouse gas emissions through sharing forest management costs and facilitating other similar arrangements related to emission offsets in forests.
- Promote and encourage the development of market-based solutions to issues of water quality and quantity, forest degradation, forest land-use conversion, biodiversity and the social values related to forests.

Value

- The GFC provides an objective source of information, resource monitoring and technical assistance to ensure that forest and bioenergy industries grow within the sustainable levels of Georgia's forests. Bioenergy industry development has increased dramatically since the GFC placed new focus on bioenergy assistance (Figure 1).



- The economic impacts of the forest industry have grown from \$20 billion to \$36 billion since 2003 after a dramatic decline early in the decade. The industry provides an average of \$977 million to state revenues each year. The developing bioenergy industry will add to these values.
- The marketing of Georgia’s forest products and developing new bioenergy products will increase the value of forests and encourage reforestation and good management.
- Facilitation of carbon offset projects provides additional sources of income for forest owners, which allows them to maintain their forests for long time periods.
- Carbon offset projects remove GHGs from the atmosphere and reduce impacts of climate change.

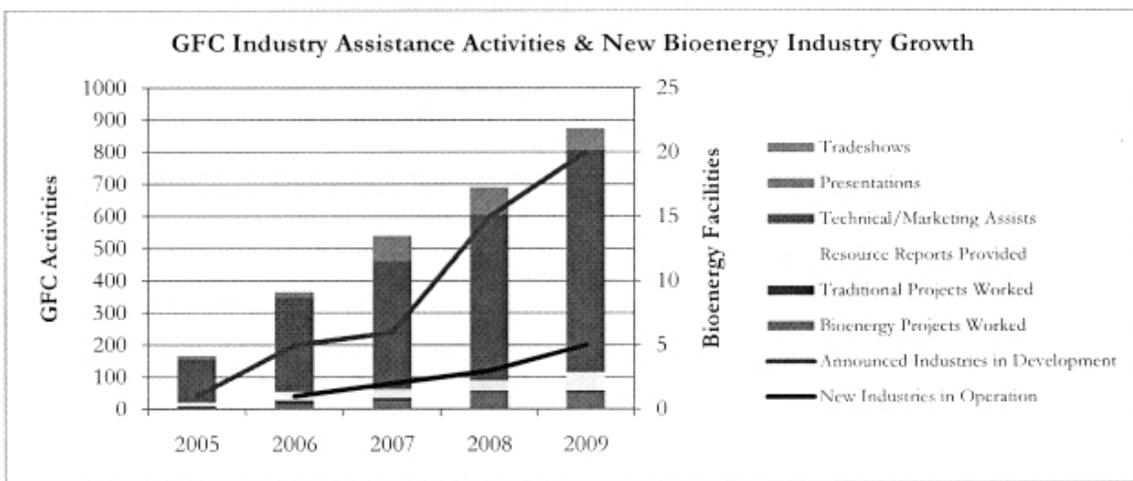


Figure 1

Goals, Objectives and Strategies

Goal 1: Enhance forest product values and ecosystem services values in Georgia.

Objective 1.1: Increase the number of domestic and international marketing referrals made by staff.

Strategy 1.1.1: Continue production and dissemination of the Forest Products Marketing Directory.

Strategy 1.1.2: Participate in trade shows (international and domestic).

Objective 1.2: Increase the economic development services provided to potential or existing companies.

Strategy 1.2.1: Perform forestry resource assessments and facility site selection assistance.

Strategy 1.2.2: Provide growth-to-drain ratios for the procurement areas around forest product mills in Georgia.

Strategy 1.2.3: Work with forest and bioenergy industries to ensure they grow within the sustainable levels of Georgia’s forests.

Objective 1.3: Facilitate carbon offset projects on private land and promote other ecosystem service markets.

Strategy 1.3.1: Operate the Georgia Carbon Sequestration Registry.



Strategy 1.3.2: Educate forest landowners and forest managers on opportunities to participate in carbon offset projects.

Strategy 1.3.3: Identify potential partnerships to reduce greenhouse gas emissions through sharing forest management costs and facilitating other similar arrangements.

Performance Measures:

Number of marketing referrals.

Number of economic development assists.

Number of carbon offset projects.



Reforestation

Program Description

The Georgia Code 12-6-5(a) recognizes that the Georgia Forestry Commission shall have power and authority: “(1) To take all action appropriate to foster, improve, and encourage reforestation;”.

Providing high-quality, genetically improved and locally adapted bare root tree seedlings to landowners and citizens of Georgia supports that mandate. A robust loblolly and slash pine breeding and testing program conducted in concert with the North Carolina State University Tree Improvement Program and the Cooperative Forest Genetics Research Program (University of Florida) provides fast-growing and disease resistant genotypes for deployment in Georgia. Managed seed orchards assure a reliable source of well-adapted superior seeds. Seed conditioning and storage facilities improve efficiency and maintain adequate and dependable supplies. An exceptional bare root nursery offers quality seedlings for sale to property owners across the state. Membership in the Southern Forest Nursery Management Cooperative keeps cultural practices up to date. In total, these activities provide a reliable source of planting stock to maintain and restore the health, vigor and productivity of Georgia’s 24 million acre forest resource.

Loss of forest land to other uses makes reforestation critical to resource maintenance. Each year, the GFC serves over 4,000 customers, providing 12 to 13 million seedlings for planting. Though not contiguous, these trees account for more than 20,000 acres of new forests each year, restocking cutover land and converting fields and pastures to productive forests.

Tree improvement (either breeding of pines, or utilizing local seed sources of hardwoods) contributes vitally to sustainable urban forests, forest health, forest productivity and bioenergy. The pine tree improvement program contributes to forest productivity not only in Georgia but across the entire Southern Region. The average genetic improvement of GFC seedlings sold over the last ten years has increased from 16 to over 33 percent. Maintaining this annual one percentage point increase in genetic gain is a goal of the program. New activities such as crown replacement in older orchards, establishing elite family seedlots and orchard reestablishment make this goal attainable and realistic. Improving the productivity of planted stands will help to alleviate the strain on natural ecosystems due to increasing wood fiber demand.

Goals, Objectives and Strategies

Goal 1: Enhance the productivity of planted stands.

Objective 1.1: Increase the number of acres planted in trees each year in Georgia.

Strategy 1.1.1: Increase the number of GFC seedlings sold.

Objective 1.2: Increase the number of acres planted in longleaf.

Strategy 1.2.1: Provide a source of bare root longleaf seedlings as a cost-effective alternative to containerized longleaf seedlings.



Objective 1.3: Demonstrate a genetic gain of one percent volume growth each year in GFC pine seedlings.

Strategy 1.3.1: Conduct crown replacement in older orchards.

Strategy 1.3.2: Replace older orchards.

Strategy 1.3.3: Manipulate seedlot composition.

Performance Measures:

Number of seedlings sold.

Number of longleaf pine seedlings sold.

Percent of volume growth increase in pine seedlings.

Georgia National Priorities and Roles Matrix:
 Correlation of Issues to Agency and Organization Roles, S&PF Programs, Priority Areas and National Priorities

The following matrix indicates:

- a) A role of a program or organization to work cooperatively on implementing strategic activities given the Strategic Issue and state forestry agency program.
- b) How a given Strategic Goal and Program is meant to address a USFS S&PF National Priority.
- c) Performance measures to be used to assess progress in meeting goals and objectives.

Issue 1: Water Quality and Quantity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Con'serve E = Enhance	
Goal 1: Maximize positive environmental impacts of forests on water quality and quantity in designated water supply watersheds.																	
Objective 1.1: Work with local governments to implement watershed planning in priority areas.																	
Strategy 1.1.1: Develop and implement "Smart Growth" plans.	UCF	X			X		X			X		X			BR, RV, FL, LRB	P	Number of plans implemented.
Strategy 1.1.2: Ensure language in plans allows landowners to implement forestry practices.	UCF	X							X	X	X				BR, RV, FL, LRB	P	Number of plans adopted with language to allow forestry practices.
Goal 2: Protect water quality during silvicultural operations.																	
Objective 2.1: Increase number of landowners and loggers trained in BMPs in priority areas.																	
Strategy 2.1.1: Deliver education programs to increase understanding of BMPs.	FH, FS												X		BR, RV, FL, LRB, ACP, EGCP	P	Number of educational programs.
Strategy 2.1.2: Establish BMP demo sites on public lands.	FH, FS, UCF, O	X	X			X	X		X	X	X	X			BR, RV, FL, LRB, ACP, EGCP	P	Number of sites established.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 1: Water Quality and Quantity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Objective 2.2: Increase BMP implementation rates in priority areas.																	
<u>Strategy 2.2.1:</u> Determine BMP implementation rates within each watershed.	FH, FS	X					X							X	BR, RV, FL, ACP, LRB, EGCP	P	BMP Survey or Assurance Exam results.
<u>Strategy 2.2.2:</u> Increase site monitoring through periodic aerial reconnaissance surveys.	FH, FS	X					X								BR, RV, FL, ACP, LRB, EGCP	P	Number of sites identified by aerial survey.
<u>Strategy 2.2.3:</u> Identify BMP deficiencies by ownership type and practice.	FH, FS	X					X							X	BR, RV, FL, ACP, LRB, EGCP	P	BMP Survey results.
<u>Strategy 2.2.4:</u> Review Stewardship Plan standards and monitoring to ensure roads and stream crossings are in compliance with BMPs.	FS, O	X		X	X	X	X	X	X	X	X			X	BR, RV, FL, ACP, LRB, EGCP	P	Number of plans reviewed.
<u>Strategy 2.2.5:</u> Continue BMP complaint resolution process.	FH, FS	X					X			X	X			X	BR, RV, FL, ACP, LRB, EGCP	P	Number of cases investigated, mediated or resolved.
Goal 3: Maximize water quality and quantity benefits provided by Georgia's forests.																	
Objective 3.1: Increase cost-share or incentives opportunities for private landowners in priority areas.																	
<u>Strategy 3.1.1:</u> Create water quality incentive programs similar to NRCS Rapid Watershed Assessment model.	FL, FS, UCF, O	X		X	X	X	X	X	X	X	X	X			BR, RV, FL, ACP, LRB, EGCP	E	Number of landowners enrolled and acres protected.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 1: Water Quality and Quantity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
<u>Strategy 3.1.2:</u> Develop ecosystem services market to benefit landowners.	O	X	X	X	X	X	X	X	X	X					BR, RV, FL, ACP, LRB, EGCP	E	Development of market.
<u>Strategy 3.1.3:</u> Promote donations of conservation easements and the receipt of associated local, state and federal tax incentives for landowners.	FL, FS			X	X	X	X	X		X	X	X			BR, RV, FL, ACP, LRB, EGCP	E	Number of conservation easements.
Objective 3.2: Increase funding for GFC to implement water quality program objectives in priority areas.																	
<u>Strategy 3.2.1:</u> Identify state water quality program needs.	FH, FS				X		X								BR, RV, FL, ACP, LRB, EGCP	E	Percent increase in funding.
<u>Strategy 3.2.2:</u> Pursue increased funding from federal, state, local and NGO entities.	FH, FS, UCF		X	X	X		X	X				X			BR, RV, FL, ACP, LRB, EGCP	E	Percent increase in funding.
<u>Strategy 3.2.3:</u> Seek funding from recreationist and fisheries organizations and other NGOs.	FH, FS, UCF							X				X			BR, RV, FL, ACP, LRB, EGCP	E	Percent increase in funding.
Goal 4: Protect, conserve and enhance ecological functions of headwater streams.																	
Objective 4.1: Improve protection and enhancement of headwater streams in high priority watersheds and on public lands in priority areas.																	
<u>Strategy 4.1.1:</u> Map streams in high priority watersheds and lands managed by public agencies.		X	X		X	X	X	X	X						BR, RV, FL, ACP, LRB, EGCP	P, E	Percentage of high priority watersheds with updated maps of headwater

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 1: Water Quality and Quantity																	
Goals, Objectives, Strategies	Programs	Organizations													Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
<u>Strategy 4.1.2:</u> Develop management plans to conserve and enhance headwater streams on state and federal lands.		X	X		X	X	X	X	X						BR, RV, FL, ACP, LRB, EGCP	C, E	Percentage of public lands with management plans that conserve streams.
<u>Strategy 4.1.3:</u> Work with private landowners to protect, conserve and enhance headwater streams in high priority watersheds.	FM, FH, FL, FS, UCF, O	X	X	X	X	X	X	X	X	X					BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of high priority headwater streams protected through conservation easements and/or long-term management
Goal 5: Protect and enhance vegetated stream buffers.																	
Objective 5.1: Decrease the linear measure of streams lacking intact, functional, site-appropriate forested stream buffers by 50 percent in priority areas.																	
<u>Strategy 5.1.1:</u> Inform landowners of vegetated stream buffer values and practices.	FH, FS, O			X	X	X	X	X	X			X			BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of landowner contacts.
<u>Strategy 5.1.2:</u> Implement Farm Bill, USFWS Partners for Wildlife and other programs.	FH, FS, O			X	X	X	X	X	X						BR, RV, FL, ACP, LRB, EGCP	C, E	Change in linear feet of stream buffers protected and restored.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 1: Water Quality and Quantity

Goals, Objectives, Strategies	Programs	Organizations													Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
<u>Strategy 5.1.3:</u> Identify streams with and without suitable buffers using GIS.			X		X	X	X	X	X						BR, RV, FL, ACP, LRB, EGCP	P, C	Survey of streams with and without suitable buffers.
<u>Strategy 5.1.4:</u> Use field surveys to document areas of critical need.			X		X	X	X	X	X						BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of relevant element occurrences in

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 2: Urbanization																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Associations	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Goal 1: Enhance environmental services provided by trees and forests in urban and interface areas.																
Objective 1.1: Increase percent canopy cover in Georgia's metro areas from 37 percent (2005 baseline) to 40 percent by 2015.																
Strategy 1.1.1: Initiate updated tree canopy loss and impervious surface studies.	UCF		X				X	X			X		X	U, I	C	Study results.
Strategy 1.1.2: Prepare educational programs and training targeting fast growing areas. Arm counties with up-to-date information about their particular county and communities, including ways to assess and address tree loss/gain issues and values of canopy cover.	UCF		X		X		X	X			X			U, I	P, C, E	Number of communities provided information.
Strategy 1.1.3: Continue to educate the GFC staff and other state partners on values and methods for maintaining forest canopy in urban and developing areas using "Changing Roles" training program.	UCF		X				X	X	X		X			U, I	C, E	Number of educational program attendees.
Strategy 1.1.4: Expand urban tree planting programs.	UCF		X				X				X		X	U	C, E	Number of trees planted.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 2: Urbanization																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Associations	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Objective 1.2: Facilitate inclusion of trees and canopy cover in stormwater management plans for 15 percent of Georgia communities by 2015.																
<u>Strategy 1.2.1:</u> Provide tree and stormwater education in partnerships with GUFC, water authorities and other agencies to show local communities options for managing stormwater with trees.	UCF		X				X				X		X	U, I	E	Number of Georgia communities with leaders trained in tree canopy issues and methods.
<u>Strategy 1.2.2:</u> Produce a “trees and stormwater” white paper with participation of hydrologists and experts in the field.	UCF		X			X		X						U, I	E	Production of white paper.
<u>Strategy 1.2.3:</u> Select and promote a model stormwater demonstration site to show the positive effects that trees have on water quality.	UCF	X	X			X		X			X			I	E	Number of Georgia communities with leaders trained in tree canopy
<u>Strategy 1.2.4:</u> Promote tree benefits specific to priority area HUCs in impaired watersheds.	UCF, FS					X	X							I	P, C, E	Number of Georgia communities with leaders trained in tree canopy issues and

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 2: Urbanization																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Associations	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Objective 1.3: Mitigate adverse effects of impervious surface through a 20 percent increase in tree planting.																	
Strategy 1.3.1: Develop a fact sheet and case study that document the effects of impervious surfaces.	UCF		X					X				X			U	P, E	Average canopy cover in Georgia metro areas.
Strategy 1.3.2: Conduct a demonstration project to illustrate the benefits of shading impervious surfaces.	UCF		X				X					X			U	P, E	Average canopy cover in Georgia metro areas.
Objective 1.4: Increase number of communities that actively manage high-value forest canopy for multiple benefits from four (2009 baseline) to six by 2015.																	
Strategy 1.4.1: Identify high-value urban forest canopy and opportunities to replace canopy lost and a cost-benefit analyses. Establish a demonstration site with accompanying cost-benefit analyses through U&CF funding.	UCF		X				X					X			U	P	Number of communities with improved canopy management
Strategy 1.4.2: Facilitate local community forest assessments, tree ordinance updates, management plans and staffing.	UCF		X									X		X	U	E	Number of communities with improved

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 2: Urbanization																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Associations	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Strategy 1.4.3: Provide community education, using the Georgia Model Urban Forest handbook as a guide.	UCF		X				X	X			X			U	P, C, E	Number of Georgia communities with leaders trained in tree canopy issues and methods.
Strategy 1.4.4: Identify and promote greenspace connectivity using an Integrated Green Infrastructure Management	UCF		X				X	X			X		X	U, I	P	Number of communities with improved canopy management.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 3: Forest Health																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 1: Minimize negative environmental and economic impacts of cogongrass in Georgia.																	
Objective 1: Ensure cogongrass infestations do not occur on more than 225 sites at any point in time within the East Gulf Coastal Plain and Atlantic Coast Plain priority areas.																	
Strategy 1.1.1: Deliver educational programs to landowners, loggers, partnering agencies and public to reduce spread and encourage prompt reporting of infestations.	FH			X		X		X	X	X					ACP, EGCP	P	Number of educational program attendees.
Strategy 1.1.2: Expand cogongrass detection programs.	FH			X		X	X		X						ACP, EGCP	P	Number of acres surveyed.
Strategy 1.1.3: Expand cogongrass treatment programs.	FH			X		X	X		X						ACP, EGCP	P	Number of acres treated.
Strategy 1.1.4: Enhance interagency partnerships in addressing the cogongrass threat.	FH		X	X	X	X	X		X						ACP, EGCP	P	Number of collaborative projects.
Strategy 1.1.5: Coordinate with adjacent states to ensure adequate control measures are implemented in border	FH		X	X		X	X		X						ACP, EGCP	P	Number of collaborative projects.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 3: Forest Health																
Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Goal 2: Minimize negative environmental and economic impacts of hemlock woolly adelgid in Georgia.																
Objective 2.1: Reduce the HWA population in urban and high-value trees in the Blue Ridge priority area.																
Strategy 2.1.1: Identify and treat high-value hemlocks.	FH					X		X						BR	P	Number of trees treated.
Strategy 2.1.2: Implement treatment of hemlock stands along perennial streams and in high-value recreation sites in the Chattahoochee National Forest.	FH	X				X		X						BR	P	Number of hemlocks treated.
Strategy 2.1.3: Provide technical assistance and training to hemlock owners on HWA and the use of systemic insecticide treatments.	FH		X			X		X						BR	P	Number of landowners trained.
Strategy 2.1.4: Identify strategic predator release sites.	FH	X	X					X						BR	P	Number of release sites.
Strategy 2.1.5: Provide support for predator-rearing labs.	FH	X	X					X						BR	P	Number of hemlocks treated.
Strategy 2.1.6: Identify eastern and Carolina hemlock genetic reserve areas on National Forest lands to provide material for research and future restoration projects.	FH	X	X					X						BR	P	Number of reserve areas identified.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 3: Forest Health																
Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Goal 3: Minimize environmental and economic damage to Georgia's forests from southern pine beetle.																
Objective 3.1: Increase the number of acres protected from SPB infestation in the Fall Line and Atlantic Coastal Plain priority areas.																
Strategy 3.1.1: Conduct prediction trapping and convey results to landowners and land managers.	FH		X											FL, ACP	P	Number of traps. Number of landowners contacted.
Strategy 3.1.2: Conduct aerial surveys to detect SPB infestations.	FH		X									X		FL, ACP	P	Number of acres surveyed.
Strategy 3.1.3: Utilize cost-share program to identify at-risk landowners and assist in forest condition improvement.	FH		X	X										FL, ACP	P, E	Number of landowners assisted.
Strategy 3.1.4: Utilize cost-share program to suppress active SPB outbreaks.	FH		X	X								X		FL, ACP	P	Number of acres in cost-share program.
Strategy 3.1.5: Provide outreach to landowners and land managers to help with technical management decisions during outbreak periods.	FH		X											FL, ACP	P	Number of landowners and managers assisted.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 3: Forest Health																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Goal 4: Minimize environmental and economic damage to Georgia's forests from laurel wilt.																
Objective 4.1: Reduce rate of spread of laurel wilt in the Atlantic Coastal Plain priority area.																
Strategy 4.1.1: Partner in and encourage research and field trials for suppression options.	FH		X	X		X			X					ACP	P	Number of field trials.
Strategy 4.1.2: Deliver programs to educate the public on the risk caused by movement of infested wood products.	FH			X		X			X					ACP	P	Number of educational program attendees.
Strategy 4.1.3: Monitor laurel wilt spread across all host species.	FH		X	X		X	X		X					ACP	P	Number of surveys.
Strategy 4.1.4: Partner with other states in the region to share information and distribute consistent messages.	FH		X			X	X		X					Southern States	P	Number of collaborative projects.
Strategy 4.1.5: Conduct outreach to the public about laurel wilt and its environmental impacts.	FH		X			X			X	X				ACP	P	Number of educational program attendees.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 3: Forest Health																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 5: Minimize environmental and economic damage to Georgia's forests from annosum root disease.																	
Objective 5.1: Reduce incidence of annosum root disease in the Fall Line priority area.																	
Strategy 5.1.1: Target at-risk landowners and provide technical assistance.	FH		X												FL	P	Number of landowners assisted.
Strategy 5.1.2: Provide outreach to landowners and land managers about annosum root disease.	FH							X	X						FL	P	Number of landowners and managers assisted.
Strategy 5.1.3: Partner and aid in ongoing research for suppression techniques.	FH		X					X							FL	P	Number of collaborative projects.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 1: Restore and maintain fire-dependent ecosystems to enhance habitat for northern bobwhite and other grassland obligate wildlife species.																	
Objective 1.1: Increase prescribed fire occurrence and frequency in fire-dependent ecosystems in the Atlantic Coastal Plain and East Gulf Coastal Plain.																	
Strategy 1.1.1: Conduct prescribed fire benefits education and outreach for landowners with the Georgia Prescribed Fire Council.	FM, FS, O		X	X	X	X	X	X		X	X				ACP, EGCP	C, E	Number of landowners contacted through field days, programs and social media.
Strategy 1.1.2: Target state and federal landowner incentives programs for prescribed burning in priority area landscapes.	FM, FS, O		X	X	X	X	X	X		X	X		X	ACP, EGCP	C, E	Number of acres burned in priority areas.	
Strategy 1.1.3: Continue to identify and map unique, rare and threatened fire-dependent communities.		X				X	X						X	BR, RV, FL, ACP, LRB, EGC P	P, C, E	Number of maps produced and updated.	
Strategy 1.1.4: Maintain a data base of prescribed burning activity on conservation lands and provide technical guidance.	FL					X	X						X	ACP, EGCP	P, C	Updated database and number of technical assists.	

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations													Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
<u>Strategy 1.1.5:</u> Promote two year prescribed burn frequency for existing longleaf and other pine to restore and maintain woodland savanna ecosystems.	FM, FS, O			X	X	X	X	X		X	X			X	RV, FL, ACP, EGCP	C, E	Acres burned in designated priority areas.
<u>Strategy 1.1.6:</u> Use existing Armuchee Ridges Thinning and Restoration project on the Chattahoochee National Forest to restore and maintain native montane longleaf and shortleaf pine habitat communities.	FM, FH, FS	X	X												RV	C, E	Acres thinned and burned.
<u>Objective 1.2:</u> Restore 200,000 additional acres of longleaf and other pine savannas within five years in priority areas.																	
<u>Strategy 1.2.1:</u> Continue the 2008 Alabama-Georgia-Florida Longleaf Pine Ecosystem Recovery Corridor S&PF grant to replace, enhance and restore longleaf pine habitat in its natural range.	FS, O		X	X		X	X	X							EGCP	C, E	Acres of longleaf pine restored.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations													Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Strategy 1.2.2: Continue the Regional Longleaf Pine Restoration Initiative and Fuel Reduction ARRA project to restore longleaf pine and native ground cover and educate the public and forest managers about the values, opportunities and methods of longleaf pine restoration.	FS, O		X	X		X		X						X	RV, FL, ACP, EGCP	C, E	Acres restored. Number of education program attendees.
Strategy 1.2.3: Continue the Dixon Memorial State Forest Wildland Recovery and Habitat Restoration Redesign grant project to re-establish longleaf pine through site preparation and planting of seedlings.	FS, O		X	X		X		X							ACP	C, E	Acres of longleaf pine restored.
Strategy 1.2.4: Use existing Farm Bill and state programs to promote frequent forest thinning (maintain 50-70 basal area) and two year prescribed fire frequency.	FM, FS, O		X	X	X	X	X	X		X	X			X	RV, FL, ACP, EGCP	C, E	Number of acres thinned and burned through cost-share programs.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Objective 1.3: Enhance habitat for ruffed grouse, golden-winged warblers and other priority species in the Blue Ridge and Ridge and Valley priority areas.																	
Strategy 1.3.2: Manage appropriate high elevation areas on the Chattahoochee National Forest to sustain a distribution of early-successional grass/shrub and seedling/sapling habitat areas.	FM, FS	X	X											BR, RV	C, E	Acres of increased structurally diverse landscape.	
Goal 2: Protect, conserve and enhance ecological functions of bottomland forest habitats.																	
Objective 2.1: Assess distribution and condition of bottomland forest habitats in priority areas.																	
Strategy 2.1.1: Identify and map high priority bottomland forest habitats.		X	X		X	X	X	X	X					X	BR, RV, FL, ACP, LRB, EGC P	P, C	Percentage of bottomland forest sites mapped and assigned preliminary habitat quality
Strategy 2.1.2: Conduct field surveys of high priority bottomland forests to assess habitat quality and biodiversity value.	FS	X	X			X	X	X	X					X	BR, RV, FL, ACP, LRB, EGC P	P, C	Percentage of bottomland forest sites identified in 2.1.1 that have been assessed in field.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Objective 2.2: Increase conservation plans for bottomland forest habitats in priority areas.																	
<u>Strategy 2.2.1:</u> Develop management plans for bottomland forest sites on state and federal lands to conserve and enhance biodiversity values.	FS	X	X		X	X	X	X	X		X			X	BR, RV, FL, ACP, LRB, EGC P	C, E	Percentage of public lands with approved management plans that address conservation needs of bottomland forests and associated
<u>Strategy 2.2.2:</u> Work with private landowners and other agencies to protect, conserve and enhance bottomland forest habitats.	FM, FH, FL, FS, UCF, O	X	X	X	X	X	X	X	X	X			X	BR, RV, FL, ACP, LRB, EGCP	P, C, E	Total acres of high priority bottomland forest sites protected through conservation easements and/or long-term management plans on private lands.	

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 3: Protect, conserve and enhance ecological functions of isolated wetlands.																	
Objective 3.1: Assess distribution and condition of high priority isolated wetlands in priority areas.																	
Strategy 3.1.1: Identify and map high priority isolated wetland habitats.		X	X		X	X	X	X	X					X	BR, RV, FL, ACP, LRB, EGC P	P, C	Total acreage of isolated wetlands mapped and assigned preliminary habitat quality status.
Strategy 3.1.2: Conduct field surveys of high priority isolated wetland sites to assess overall habitat quality and biodiversity value.		X	X		X	X	X	X	X					X	BR, RV, FL, ACP, LRB, EGCP	P, C	Percentage of isolated wetland sites identified in 3.1.1 that have been assessed in field.
Objective 3.2: Increase number of conservation plans for high priority isolated wetlands in priority areas.																	
Strategy 3.2.1: Develop management plans for isolated wetlands on state and federal lands to conserve and enhance biodiversity values.	FM, FH	X	X	X	X	X	X	X	X		X			X	BR, RV, FL, ACP, LRB, EGC P	C, E	Percentage of public lands with approved management plans that address conservation

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations													Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Strategy 3.2.2: Work with private landowners to develop management plans and establish conservation easements for isolated wetlands.	FM, FH, FL, FS, UCF, O	X	X	X	X	X	X	X	X	X	X			X	BR, RV, FL, ACP, LRB, EGCP	P, C, E	Total acres of high priority isolated wetlands protected through conservation easements and/or long-term management
Goal 4: Protect karst environments.																	
Objective 4.1: Increase knowledge of critical karst feature locations in priority areas.																	
Strategy 4.1.1: Survey and document locations of karst features of concern.	O				X	X			X					X	RV, EGCP	P, C	Occurrence records of karst features.
Strategy 4.1.2: Conduct ecological surveys to prioritize sites.					X	X			X					X	RV, EGCP	P, C, E	Prioritized list of karst sites.
Objective 4.2: Implement protection of all relevant karst features with site-suitable forested buffers and management guidelines in priority areas.																	
Strategy 4.2.1: Inform landowners and managers of relevant values and practices.	FS			X	X	X	X	X						X	RV, EGCP	P, C	Number of landowner contacts.
Strategy 4.2.2: Promote and implement Farm Bill and other programs to assist landowners.	FS			X	X	X	X	X						X	RV, EGCP	P, C, E	Number of sites protected with forested buffers.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance
Goal 5: Manage Chattahoochee-Oconee National Forest lands to restore and maintain forest ecosystems representative of the ecoregions where they occur.																
Objective 5.1: Increase adaptive management through the 2004 Land and Resource Management Plan for the Forests to restore and maintain native ecosystems, while providing for balanced human use in priority areas.																
Strategy 5.1.1: Implement forest projects to demonstrate the sustainability of diverse ecosystems that support viable plant, wildlife and fish populations including habitats for species that need large contiguous forested landscapes found on public lands.	FM, FS	X	X			X							X	BR, RV, FL	P, E	Number of projects.
Strategy 5.1.2: Implement forest projects to protect or restore rare ecological communities found on National Forest lands.	FS	X	X			X							X	BR, RV, FL	P, E	Number of projects conducted in rare communities.
Goal 6: Create suitable habitats for the recovery of the endangered Red Cockaded Woodpecker (RCW).																
Objective 6.1: Increase management of appropriate ecosystems on the Oconee National Forest to create habitat for RCW in the Fall Line priority area.																
Strategy 6.1.1: Implement the USFWS's RCW Recovery Plan on the Oconee National Forest to provide approximately 46,000 acres of habitat supporting active RCW clusters.	FM, FH	X	X			X								FL	P, E	Number of acres of RCW habitat managed.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 4: Biodiversity																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Strategy 6.1.2: Establish a demonstration area for landowners on managing forest lands in the ecoregion compatible with RCW habitat.	FM, FS	X	X		X	X								X	FL	C, E	Establishment of a demonstration site.
Goal 7: Restore American chestnuts in Georgia.																	
Objective 7.1: Increase acreage of blight-resistant American chestnut in the Blue Ridge and Ridge and Valley priority areas.																	
Strategy 7.1.1: Identify appropriate areas within the Chattahoochee National Forest for restoration of the American chestnut and implement planting and cultivation of seedlings.	FH, FS	X	X			X		X	X						BR, RV	C, E	Number of areas identified.
Strategy 7.1.2: Identify interested private landowners with similar ecosystems to restore American chestnut on private lands in the Blue Ridge.	FH, FS	X	X			X		X	X						BR, RV	C, E	Number of landowners identified.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 5: Air Quality																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 1: Develop and enhance value-capture activity for carbon sequestration in forests.																	
Objective 1.1: Increase the amount of forest land involved with carbon sequestration offset projects at some market or value-capture level in priority areas.																	
Strategy 1.1.1: Educate forest landowners and managers about forestry carbon offset project opportunities.	FS, O		X	X	X		X	X	X		X	X		X	BR, RV, EGCP	E	Forest land acres involved in carbon offset projects.
Strategy 1.1.2: Modify the GCSR or act to merge with other protocols to have local impact.	FS, O		X		X		X	X	X		X				BR, RV, FL, ACP, LRB, EGCP	E	Forest land acres involved in carbon offset projects on the GCSR.
Goal 2: Enhance air quality in Georgia.																	
Objective 2.1: Increase canopy cover in Urban and Interface priority areas.																	
Strategy 2.1.1: Assist communities in setting tree canopy goals.	UCF		X		X		X	X				X			U, I	E	Percent increase in canopy cover.
Strategy 2.1.2: Utilize grant and corporate funds to plant trees in priority communities.	UCF		X		X			X				X			U	E	Number of trees planted.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 5: Air Quality																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Objective 2.2: Increase public understanding of the role of trees and forests in air quality in Urban and Interface priority areas.																	
Strategy 2.2.1: Partner with utilities to educate homeowners about the energy benefits of strategically planted trees.	UCF				X		X	X							U	E	Number of education program attendees.
Strategy 2.2.2: Identify air quality benefits of community forests related to public health.	UCF		X		X		X	X						Statewide	E	Development of air quality benefits fact sheet.	
Goal 3: Monitor air quality on the Chattahoochee National Forest to meet the goals of the federal Clean Air Act and applicable Georgia air quality regulations to evaluate air pollution impacts to forest resources.																	
Objective 3.1: Monitor air quality in the vicinity of the Cohutta Wilderness Area in Fannin and Murray counties, Georgia.																	
Strategy 3.1.1: Work with EPD to monitor visibility impairment, ozone impacts and pollutants affecting forest resources in the Cohutta Wilderness as an indicator of air quality.	FH	X					X	X						RV	P, E	Implementation of a monitoring system.	

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management																
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance
Goal 1: Maintain an effective fire suppression capacity																
Objective 1.1: Maintain appropriate resources for fire occurrence and workload																
Strategy 1.1.1: Analyze fire trends and suppression needs annually	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	P,E	# of wildfires and acres burned over time
Strategy 1.1.2: Evaluate equipment assignments, effectiveness and equipment training programs_	FM	X			X					X		X	X	BR, RV, FL, ACP, EGCP	P,E	Evaluation of fuel types and terrain compared to current equipment assignments
Strategy 1.1.3: Expand program to recruit, retain and train GFC wildland firefighters	FM	X			X	X						X		BR, RV, FL, ACP, EGCP	P,E	# of firefighters trained
Strategy 1.1.4: Continue the Georgia Basic Wildland Firefighter Course	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	P,E	# of firefighters trained
Strategy 1.1.5: Strive to reduce the average wildfire size to less than five(5) acres	FM	X			X				X		X	X	X	BR, RV, FL, ACP, EGCP	P,E	Annual average wildfire less than 5 acres
Strategy 1.1.6: Provide wildland firefighters with adequate firefighting equipment, PPE and communications equipment	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	Wildland PPE and radios issued

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance
Strategy 1.1.7: Update an aging front-line firefighting equipment and apparatus fleet	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	Replacement of fire suppression equipment
Strategy 1.1.8: Improve dispatch, resource tracking and communications capabilities with fire line personnel	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	AVL system and/or personal locator devices installed/issued
Strategy 1.1.9: Continue the federal Firefighter Property Program and Federal Excess Property Program to assist partners in obtaining adequate fire suppression equipment	FM	X			X						X	X	X	BR, RV, FL, ACP, EGCP	P,E	# of FFP assets and value issued to FD's and Emergency Service Agencies
Strategy 1.1.10: Continue to support the Fabrication Shop operations to ensure fire equipment is maintained and repaired efficiently.	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	# of projects completed in Fabrication Shop

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance

Objective 1.2: Provide adequate communications support

Strategy 1.2.1: Connect all GFC districts to a " Interoperability VHF Radio Network" accessing USFS/USFWS/NPS dispatching channels utilizing the GEMA Statewide Interoperability System	FM	X			X		X						X	X	BR, RV, FL, ACP, EGCP	P,E	Connectivity of GFC radio network and repeater systems with other federal and state agencies
Strategy 1.2.2: Participate in the statewide multi-agency radio planning group in coordinating efforts to share resources to reduce costs in statewide communications systems	FM	X			X	X	X							X	BR, RV, FL, ACP, EGCP	P,E	# of meetings attended and # of shared communications links implemented
Strategy 1.2.3: Solve coverage problems and penetrate the forest canopy areas in South Central, Southeast and within the mountainous areas of North Georgia.	FM	X			X		X					X	X		BR, RV, FL, ACP, EGCP	P,E	100% GFC radio signal coverage in all areas of Georgia

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance
Strategy 1.2.4: Meet appropriate radio tower specifications in height and grounding requirement to optimize radio communications	FM	X			X		X				X			BR, RV, FL, ACP, EGCP	P,E	100% of radio towers used by GFC are probably grounded.
Strategy 1.2.5: Continue to acquire radio and communications support equipment to modernize communications within the GFC and with our partners.	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	Radio and supporting communication apparatus replaced according to GFC replacement schedules.
Objective 1.3: Provide adequate fire weather forecasting																
Strategy 1.3.1: Remain current on weather systems and technology	FM	X			X			X				-		BR, RV, FL, ACP, EGCP	P,E	100% replacement of weather station software and modem updates
Strategy 1.3.2: Develop a Fire Readiness/Preparedness System in Georgia that indicates the level of potential for wildfire occurrence to optimize efficiency of wildland fire personnel and equipment	FM	X			X							X		BR, RV, FL, ACP, EGCP	P,E	A Preparedness Level system implemented within Georgia that accurately provides clear guidance on wildfire potential

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other

Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance

Objective 1.4: Enhance the statewide Rural Fire Defense Program

Strategy 1.4.1: Maintain equipment fabrication and PPE acquisition programs for rural fire departments in Georgia	FM	X			X						X	X		BR, RV, FL, ACP, EGCP	P,E	# of firefighting vehicles, tanks, pumps, PPE and other apparatus repaired and issued to FD's.
Strategy 1.4.2: Continue to support the Firefighter Property Program to acquire firefighting and emergency service vehicles and equipment for cities and counties in Georgia	FM	X			X						X	X		BR, RV, FL, ACP, EGCP	P,E	# of FFP assets obtained and issued.

Goal 2: Enhance fire prevention and mitigation programs

Objective 2.1: Increase activity in community wildfire planning

Strategy 2.1.1: Complete 146 countywide CWPPs in the next 2 years.	FM, UCF	X			X	X					X	X		BR, RV, FL, ACP	P,E	Number of CWPPs.
Strategy 2.1.2: Utilize information gathered from countywide CWPP's to target Firewise Communities /USA efforts in high- risk communities.	FM, UCF	X			X	X					X	X		BR, RV, FL, ACP	P,E	Number of communities certified.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures		
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance	
Strategy 2.1.3: Integrate county CWPPs with GEMA County Disaster Hazard Mitigation Plans.	FM				X		X					X	X		BR, RV, FL, ACP	P,E	Number of county CWPP's incorporate into Hazard Mitigation Plans
Strategy 2.1.4: Target mitigation projects through pre-wildfire disaster grants	FM	X			X								X		BR, RV, FL, ACP, EGCP	P,E	# of mitigation projects completed
Strategy 2.1.5: Update CWPP's that are 5 years old or older.	FM	X			X								X		BR, RV, FL, ACP, EGCP	P,E	# of CWPP's updated
Strategy 2.1.6: Utilize the Southern Wildfire Risk Assessment Portal (SouthWRAP) to identify high risk wildland-urban interface to focus fire prevention efforts	FM	X		X	X		X					X	X	X	BR, RV,FL ACP EGCP	P,E	Mitigation practices in high risk communities

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance

Objective 2.2: Educate Georgia citizens on wildland fire prevention

Strategy 2.2.1: Continue the 50 County Fire Prevention Plan to target specific fire causes	FM	X			X								X		BR, RV, FL, ACP, EGCP	P, E	Reduction in wildfires in 50 counties in Georgia that have the highest occurrence
Strategy 2.2.2: Present Firewise and Fire Adapted Community concepts to members of high risk communities	FM	X			X								X		BR, RV, FL, ACP, EGCP	P, E	# of program completed and people reached
Strategy 2.2.3: Continue to provide individual home and community risk assessments	FM	X			X								X		BR, RV, FL, ACP, EGCP	P, E	# of individual home risk assessments completed
Strategy 2.2.4: Produce and deliver fire prevention messages and programs to educate the public on preventing fires and benefits of mitigation programs.	FM	X	X		X	X		X		X	X	X	X	X	RV, BR, ACP, FL	P, E	Number of wildfires

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance	
Strategy 2.2.5: Utilize Fire Prevention teams to provide fire prevention information to homeowners, evaluate risk to individual homes and provide assessments of findings.	FM, O	X			X	X		X				X	X		RV, BR, ACP, FL	P, E	Number of wildfires in areas where FP Team have deployed.
Objective 2.3: Improve GFC Law Enforcement presence as a fire prevention tool																	
Strategy 2.3.1: Provide adequate equipment, training and personnel for the GFC LE program.	FM	X			X							X			BR, RV, FL, ACP, EGCP	P, E	# hours of LE personnel training.
Strategy 2.3.2: Utilize fire report data to develop specific LE activities in areas where there is high incendiary activity	FM	X			X							X			BR, RV, FL, ACP, EGCP	P, E	# of fires investigated
Strategy 2.3.3: Continue to network within the Southern Area (SGSF) Wildland Arson Taskforce to share information, training and to supplement or enhance fire investigations across state lines.	FM	X			X							X			BR, RV, FL, ACP, EGCP	P, E	# of hours of training and fire investigated

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance
Strategy 2.3.4: Develop an internal GFC succession planning program to train and prepare potential LE program candidates for the future	FM	X			X							X		BR, RV, FL, ACP, EGCP	P, E	# of personnel enrolled in succession planning program
Objective 2.4: Increase activity on current mitigation programs																
Strategy 2.4.1: Improve the computerized Burning Permit system to enhance database.	FM	X			X							X		BR, RV, FL, ACP, EGCP	E	# of burning permits issued
Strategy 2.4.2: Increase plowing and prescribed burning activity on private and public lands	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	P, C, E	# of acres RX burned and miles of firebreaks installed
Strategy 2.4.3: Continue to engage the masticator and heavy mowing program in priority areas to mitigate the threat of wildfires to communities at risk.	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	P, E	# of mastication hours

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance

Objective 2.5: Implement the Prescribed Burn Strategic Plan

Strategy 2.5.1: Implement a focused and effective communication and education campaign for garnering informed public support, status and recognition	FM	X			X								X		BR, RV, FL, ACP, EGCP	E	# of outreach programs and social media messages on the benefits of RX fire.
Strategy 2.5.2: Manage smoke from prescribed fire to minimize the potential impacts on air quality and highway traffic safety	FM	X			X								X	X	BR, RV, FL, ACP, EGCP	P, E	All prescribed burns are screened for according to smoke management guidelines
Strategy 2.5.3: Increase incentives to land mangers using prescribed fire by maintaining current prescribed fire incentive programs and seeking new opportunities.	FM	X			X								X		BR, RV, FL, ACP, EGCP	P, E	# of incentive programs that support RX fire.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management

Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P=Protect C=Conserve E=Enhance
Strategy 2.5.4: Acquire sufficient resources to promote and implement prescribed fire operations on public and private lands	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	P, E	MOU's with other agencies and organizations for shared resources
Strategy 2.5.5: Take a more proactive role in growth management to mitigate future impacts of increasing urbanization	FM	X			X							X		BR, RV, FL, ACP, EGCP	P, E	# of FAC programs delivered. # of Wildland Urban Interface Codes implemented with communities.
Strategy 2.5.6: Enhance the professionalism of prescribed fire practitioners	FM	X			X							X	X	BR, RV, FL, ACP, EGCP	E	# of prescribed fire manager training and certifications.
Strategy 2.5.7: Expedite the transfer of new prescribed fire technology to field use.	FM	X			X							X		BR, RV, FL, ACP, EGCP	E	# of training sessions
Strategy 2.5.8: Produce innovative grant applications to acquire prescribed fire grants such as Community Protection and Okefenokee GOAL	FM	X			X							X		BR, RV, FL, ACP, EGCP	E	# of grant applications submitted and approved.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 6: Fire Management																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 3: Advance incident management capabilities																	
Objective 3.1: Provide adequate training to maintain a Type II Incident Management Team																	
Strategy 3.1.1: Support and maintain a training program to keep a nationally qualified Type II Team active and current for both fire and all-risk incidents.	FM	X			X	X	X	X	X		X				Southern States	E	Fully qualified IMT.
Objective 3.2: Provide adequate training to maintain GEMA State Operation Center representation																	
Strategy 3.2.1: Maintain a viable training and retention program for potential and active logistics staff.	FM	X	X		X		X					X			BR, FL, RV, ACP, EGCP	E	Number of fully qualified Logistics section personnel.
Objective 3.3: Enhance interagency partnerships for incident response in Georgia																	
Strategy 3.3.1: Provide incident management training for selected Georgia participants	FM	X			X								X		BR, RV, FL, ACP, EGCP	E	Number of NWCG courses.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 7: Fragmentation and Parcelization																	
Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures		
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 1: Conserve working forest landscapes for multiple values and uses.																	
Objective 1.1: Protect Fall Line area from fragmentation and parcelization.																	
Strategy 1.1.1: Determine land ownership demographics and management interests.	FH, FS	X	X				X	X			X			X	FL	P, C, E	Acres protected under conservation easements.
Strategy 1.1.2: Identify and assist forest landowners in Piedmont National Wildlife Refuge and Oconee National Forest area.	FL, FS	X	X		X	X		X			X				FL	P, C	Acres under an approved management plan and acres certified as forest steward land.
Strategy 1.1.3: Deliver education and assistance program to military base areas in the Fall Line priority area in cooperation with SERPPAS.	FL, FS		X	X	X		X						X	FL	P, C, E	Number of acres assisted within military base ACUB priority areas.	

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 7: Fragmentation and Parcelization																	
Goals, Objectives, Strategies	Programs	Organizations											Priority Areas	National Priorities	Performance Measures		
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 2: Preserve the high biological diversity of Georgia's forests.																	
Objective 2.1: Increase the number of acres protected from fragmentation and parcelization in priority areas.																	
Strategy 2.1.1: Recognize the 12 digit HUC/ 30 percent forested/ greater than 50 percent intact landscape layer as the initial delineation of a priority for program delivery and budget available funds for the creation of new or revised plans accordingly.	FS		X	X		X		X	X					X	BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of acres receiving assistance in priority areas.
Strategy 2.1.2: Adopt new procedure and implement with State Forest Stewardship Coordinating Committee oversight to ensure funds are applied to the most worthy applicants for plan development.	FS			X		X		X	X						BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of acres receiving assistance in priority areas.
Strategy 2.1.3: Convene a sub-group of the State Forest Stewardship Coordinating Committee to draft an initial ranking process with relevant criteria to ensure the criteria for ranking the applications	FS			X		X		X	X						BR, RV, FL, ACP, LRB, EGCP	P, C, E	Number of acres under an approved management plan and acres certified as forest steward land.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 7: Fragmentation and Parcelization

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
addresses as many resource concerns and issues.																	
Goal 3: Enhance public benefits from trees and forests.																	
Objective 3.1: Promote landscape level approach to program delivery in priority areas.																	
<u>Strategy 3.1.1:</u> Identify landscape scale pilot projects in priority areas to implement program delivery to enhance public benefits of forests.	FS	X		X		X		X						X	BR, RV, FL, ACP, LRB, EGCP	E	Number of landscape scale projects in priority areas.
<u>Strategy 3.1.2:</u> Continue the Central Georgia Strategic Outreach Redesign grant and Appalachian Riparian Initiative grant.	FS	X		X		X		X							BR, FL	E	Number of acres under an approved management plan and acres certified as forest

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 8: Economics and Changing Markets																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Goal 1: Increase the total value of wood products delivered to mills.																	
Objective 1.1: Increase the number of mills producing both traditional and new bioenergy products in priority areas.																	
Strategy 1.1.1: Facilitate marketing referrals through continued collection and dissemination of the Forest Products Marketing Directory, participation in trade shows, online marketing development and other traditional methods.	O		X		X		X			X	X				Statewide and Southern States	E	Number of marketing referrals.
Strategy 1.1.2: Identify and contact potential new industries that are seeking expansion and could benefit from building mills in Georgia through increasing new partner contacts, participation in trade shows and other meetings.	O		X		X		X			X	X				Statewide and Southern States	E	Number of contacts.
Strategy 1.1.3: Promote forest products in domestic and international markets.	O						X			X	X				FL, ACP	E	Value of production output and value of exported wood products.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 8: Economics and Changing Markets																	
Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Strategy 1.1.4: Promote area to potential new forest products and biomass companies.	O						X			X	X				FL, ACP	E	Number of new mills.
Objective 1.2: Increase the amount of wood products exported.																	
Strategy 1.2.1: Pursue international marketing and business recruitment missions.	O		X		X		X			X	X				Statewide and Southern States	E	Percent increase in exports.
Objective 1.3: Increase the amount of certified wood products produced in Georgia mills.																	
Strategy 1.3.1: Facilitate the increase of certified forests in Georgia by identifying landowners who are active in the Forest Stewardship program and assisting with their certification in Tree Farm and other programs.	FS, O						X	X		X	X				ACP	E	Number of acres in certification systems and value of certified wood product output.
Strategy 1.3.2: Conduct workshops for forest products companies and landowners to provide information on requirements and benefits of forest certification and wood product certification.	FS, O									X					BR, RV, FL, ACP, LRB, EGCP	E	Number of workshop attendees.

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

Issue 8: Economics and Changing Markets

Goals, Objectives, Strategies	Programs	Organizations												Priority Areas	National Priorities	Performance Measures	
	State and Private Forestry Programs	USFS National Forest Systems	USFS Research & Other USFS	NRCS/FSA & Other USDA	Other Federal Agencies	Georgia DNR WRD	Other State Agencies	Land Trust, Wildlife & Conservation Organizations	Universities & Schools	Georgia Forestry Association & Forest Landowner Assns.	Other Forestry Organizations	Municipalities & Cities	Fire Departments: VFD & Cities	Military Installations	State Designated Priority Areas	P = Protect C = Conserve E = Enhance	
Strategy 1.3.3: Increase marketing referrals made concerning certified wood products.	FS, O									X					Statewide and Southern States	E	Percent increase in marketing referrals.
Strategy 1.3.4: Pursue development of ecosystem services markets through collaboration with land developers, industry, county commissions and soil and water conservation districts to maintain and enhance the forest land base.	FS, O	X	X	X	X	X	X	X	X	X	X	X	X	Statewide and Southern States	P, C, E	Establishment of pilot programs, number of forest acres engaged and number of partner organizations seeking to mitigate impacts.	

LEGEND: Programs: FM - Fire Management, FH - Forest Health, FL - Forest Legacy, FS - Forest Stewardship, UCF - Urban and Community Forestry, O - Outreach/Other
Priority Areas: BR - Blue Ridge, RV - Ridge and Valley, FL - Fall Line, LRB - Large River Bottomlands, ACP - Atlantic Coastal Plain, EGCP - East Gulf Coastal Plain, U - Urban, I - Interface

NATIONAL PRIORITIES SECTION – Update Report

STATE OF GEORGIA 2020

The 2008 Farm Bill, under Title VIII – Forestry, amends the Cooperative Forestry Assistance Act of 1978, to include the requirement that each state develop a long-term, state-wide assessment and strategies for forest resources. These assessments and strategies focused on three national priorities:

- Conserve and Manage Working Forest Landscapes for Multiple Values and Uses
- Protect Forests from Threats
- Enhance Public Benefits from Trees and Forests

These documents were developed by a comprehensive team of stakeholders to address cross-boundary, landscape scale actions that would be the most efficient activities to address issues of concern identified in the assessment phase of the Forest Action Plan.

This document serves as a record of actions taken by all Georgia stakeholders to address strategic priorities that are part of Georgia’s Forest Action Plan.

Please note: Supplemental language provided in the 2014 Farm Bill as signed on February 7, 2014 indicates additional coordination requirements. In subsequent reporting, accomplishments with these partners should be included. Section 2A(c)(5) reads; “*as feasible, appropriate military installations where the voluntary participation and management of private or State –owned or other public forestland is able to support, promote, and contribute to the missions of such installations.*”

1. Conserve and Manage Working Forest Landscapes for Multiple Values and Uses

Issue Addressed: Fragmentation and Parcelization

Goal 1: Conserve working forest landscapes for multiple values and uses. (Page 21)

Program Area: Forest Legacy

Goal 1: Conserve environmentally important forest areas that are threatened by conversion to non-forest uses by capitalizing on the collective capacity of various organizations.

Objective 1.1: Leverage multiple partnerships with various land trust and conservation organizations to expand the possibilities for land conservation acquisitions. (Page 38)

Strategic Action: The Forest Legacy Program leverages funding from its partners to protect key parcels of land in priority landscapes.

Issue Addressed: Air Quality

Goal 1: Develop and enhance value-capture activity for carbon sequestration in forests.

Objective 1.1: Increase the amount of forestland involved with carbon sequestration offset projects at some market or value-capture level in priority areas. (Page 16)

Strategic Action: The Forest Utilization and Marketing Program partnered with the US Army base at Fort Benning to add 148,539 acres to Georgia's Carbon Sequestration Registry. The Forest Utilization and Marketing Program continues to promote carbon sequestration, but Georgia's Carbon Sequestration Registry remains inactive due to the lack of carbon markets in the private sector and to timber owners' lack of interest in investing in costly third-party assessments.

Issue Addressed: Reforestation

Goal 1: Enhance the productivity of planted stands.

Objective 1.1: Increase the number of acres planted in trees each year in Georgia.

Strategy 1.1.1: Increase the number of GFC seedlings sold. (Page 52)

Strategic Action: On average, sales of GFC seedlings have increased.

Objective 1.3: Demonstrate a genetic gain of one percent volume growth each year in GFC pine seedlings.

Strategy 1.3.3: Manipulate seedlot composition. (Page 53)

Strategic Action: The Reforestation Program has reduced the size of seedlots to more single-family plantings and small seed orchard mixes, in order to increase productivity ratings of certain species.

2. Protect Forests from Threats

Issue Addressed: Fire Management

Goal 1: Protect Georgia communities from wildfire.

Objective 1.1: Facilitate Community Wildland Fire Planning for communities at risk within and adjacent to priority areas. (Page 18)

Strategic Action: Since 2010, the Georgia Forestry Commission (GFC) has worked with local government and fire departments to complete 140 county-wide Community Wildfire Protection Plans (CWPP's). These plans identify communities at highest risk from wildfire, outline mitigation objectives that need to be completed to reduce the risks, and list action items necessary to prepare the communities for wildfire threats.

Goal 2: Prevent and mitigate wildfire.

Objective 2.1: Reduce the number and severity of wildfires in priority areas.

Strategy 2.1.3: Develop a computerized system to handle a larger load of burning permits more efficiently and retain a comprehensive database. (Page 19)

Strategic Action: Since 2010, a computerized system has been utilized to electronically issue burning permits. The electronic database provides opportunities to quickly search for individual permits or allows for batch searches that summarize burning activities by year, acres, types of burning conducted (agriculture, silviculture, land clearing, and hand piled natural vegetation). This system has greatly enhanced capabilities for issuing burn permits, allowing an average of 750,000 burn permits in Georgia per year.

Issue Addressed: Water Quality

Goal 2: Protect water quality during silvicultural operations in water supply watersheds and in biota and dissolved oxygen impaired watersheds, especially those listed for TMDL reductions.

Objective 2.1: Increase number of landowners and loggers trained in BMPs in priority areas. (Page 4)

Strategic Action: Since 2017, the Water Quality Program has given 523 BMP educational presentations, 76 BMP field demonstrations, 272 BMP Assurance Exams and 542 BMP Compliance Survey Inspections.

Objective 2.2: Increase BMP implementation rates in priority areas. (Page 4)

Strategic Action: In 2015, 2017 and 2019, statewide BMP surveys were completed and showed continued overall good BMP implementation, and the Water Quality Program also anticipates good results from the 2021 survey.

Issue Addressed: Forest Health

Goal 1: Minimize negative environmental and economic impacts of cogongrass in Georgia.

Objective 1.1: Ensure cogongrass infestations do not occur on more than 225 sites at any point in time within the East Gulf Coastal Plain and Atlantic Coast Plain priority areas.

Strategy 1.1.4: Enhance interagency partnerships in addressing the cogongrass threat. (Page 9)

Strategic Action: In 2020, GFC began to re-engage Georgia's Invasive Species Taskforce. This group includes Georgia Department of Agriculture, Georgia Department of Natural Resources, University of Georgia, USDA APHIS and Homeland Security at the Port of Savannah. This group serves as the clearinghouse for information and guidance on invasive plants, insects and diseases in Georgia. Within this group, the Cogongrass Taskforce continues to be the leader in the Southeast on cogongrass control. As of January 1, 2021, there were 1,457 confirmed spots statewide, with only 194 (13%) classified as active. This taskforce will continue to survey for new spots, control positively identified spots and prepare outreach materials on identification and control of cogongrass for landowners and natural resource managers.

3. Enhance Public Benefits from Trees and Forests

Issue Addressed: Urbanization

Goal 1: Enhance environmental services provided by trees and forests in urban and interface areas.

Objective 1.2: Facilitate inclusion of trees and canopy cover in stormwater management plans for 15 percent of Georgia communities by 2020.

Strategy 1.2.1: Provide tree and stormwater education in partnerships with GUFC, water authorities and other agencies to show local communities options for managing stormwater with trees. (Page 8)

Strategic Action: SCFP in conjunction with GUFC has planned and hosted several educational programs that highlight trees and stormwater. In 2014, SCFP provided presentations demonstrating the use of trees for stormwater management at the annual conference. A similar program focusing on trees and stormwater management was presented in Milton, Georgia in 2015.

Objective 1.4: Increase number of communities that actively manage high-value forest canopy for multiple benefits from four (2009 baseline) to six by 2020.

Strategy 1.4.1: Facilitate local community forest assessments, tree ordinance updates, management plans and storm mitigation plans. (Page 8)

Strategic Action: SCFP utilized federal funding to contract with GUFC to provide the services of consulting certified arborists. These consultants provide services including tree ordinance revisions, management plans, training and storm mitigation plans. In 2015 alone, more than 90 communities utilized the resources from this project.

Issue Addressed: Economics and Changing Markets

Goal 1: Increase the total value of wood products delivered to mills.

Objective 1.1: Increase the number of mills producing both traditional and new bioenergy products in priority areas. (Page 23)

Strategic Action: The Forest Utilization and Marketing Program completed 57 forest resource analyses for potential industries in the last five years. Since 2015, two new biomass electricity plants were established in Georgia.

Strategy 1.1.1: Facilitate marketing referrals through continued collection and dissemination of the Wood Product Marketing Directory, participation in trade shows (international and domestic), online marketing development and other traditional methods. (Page 23)

Strategic Action: Forest Utilization and Marketing produced digital and print wood-using industry directories on an annual or bi-annual basis for distribution at 17 domestic and five international trade shows.

Challenges

As with most agencies, a lack of funding and personnel is an ever present challenge across all of the GFC program areas. In addition to these hurdles, each department faces difficulties unique to the program area.

Forest Health

Changing technology, evolving surveys, and the necessary learning curve to adapt to them continues to be the greatest challenge for the Forest Health Program. In 2015, a new table-based survey method requiring sophisticated databases and the use of touchscreen tablets was implemented. This new method should improve performance and productivity.

Fire Management

The largest difficulty faced by the Fire Management Program is a lack of willingness to engage in wildfire mitigation practices on the part of communities. Since the economic downturn, many local governments are unwilling to invest in wildfire mitigation practices. Additionally, individual landowners are often unwilling to perform prescribed burning on their property due to a concern for liability from escaped prescribed fire or smoke drifting into sensitive areas. Some of the heaviest fuel loads in the state occur on corporate and industrial forest landowner properties, nearly all of which have company policies and rules that limit or prevent local land managers from conducting prescribed burning.

Forest Utilization and Marketing

The Utilization Department's challenges stem from the changing status of the industry. There is a great deal of uncertainty about how the EPA will address biomass emissions and the impact this will have on the use of biomass to meet Georgia's Clean Power Plan. Also, Europe's changing sustainability criteria for the pellet industry in Georgia

leaves the Utilization Program trying to find a way to demonstrate the industry's sustainability in such a manner that satisfies multiple European standards. The program is also constantly trying to stay on top of the mergers and acquisitions within the forest products industry, a task which has been compounded by the recent trend in company land divestiture in a changing and evolving industry.

Sustainable Community Forestry Program

One of the struggles faced by SCFP is facilitating the collaboration of multiple jurisdictions in preserving and connecting green infrastructures. There has also been some resistance from the development community to new outlooks and information about the environmental benefits of trees, particularly in relation to stormwater management.

Water Quality

For the Water Quality Program, improving BMP implementation for firebreaks, especially among private contractors, continues to be difficult. On a related topic, high levels of turnover and the resulting experience loss of water quality knowledge necessitate a near constant need to train new field-foresters. Finally, there is a great deal of uncertainty and fear from those in the forestry community about potential changes to federal regulations and legislation.

Reforestation

The Reforestation Program has struggled in its efforts to provide a source of bare root seedlings as a cost effective alternative to containerized longleaf seedlings, due to a push for containerized seedlings by the government agencies that write cost share rules and requirements. Also, recent trends to convert young, newly planted forestland back into agricultural land have hindered the objective of increasing the number of acres planted in longleaf pines.

Forest Stewardship

The greatest challenge for the Forest Stewardship Program deals specifically with the first program goal. The version currently reads as follows:

Goal 1: Conserve working forest landscapes for multiple values and uses.

Objective 1.1: Create a ranking process for the distribution of funds for plan development.

Strategy 1.1.1: Recognize the 12 digit HUC/ 30 percent forested/ greater than 50 percent intact landscape layer as the initial delineation of a priority for program delivery and budget available funds for the creation of new or revised plans based on be "in" initial priority delineation (75 percent) and "out" of initial priority delineation (25 percent).

Strategy 1.1.2: Adopt new procedure and implement with committee oversight to ensure funds are applied to the most worthy applicants for plan development.

Strategy 1.1.3: Convene a subgroup of the state steering committee to draft an initial ranking process with relevant criteria to ensure the criteria for ranking the applications addresses as many resource concerns and issues as appropriate.

This goal has been a challenge because shortly after adopting the strategy, program funding was cut by more than 23 percent, leaving little money to execute a ranking process for consult contracted plans. Instead, the program developed an internal incentive program to make up part of the difference in lost production. To reflect this change, future versions of the Forest Action Plan will substitute the following language:

Goal 1: Conserve working forest landscapes for multiple values and uses.

Objective 1.1: Continue a sustainable level of 100,000 acres annually in stewardship plan production.

Strategy 1.1.1: Recognize the 12 digit HUC/ 30 percent forested/ greater than 50 percent intact landscape layer as the initial delineation of a priority for program delivery.

Strategy 1.1.2: Adopt new procedures and implement with committee oversight to ensure funds are applied to the most worthy applicants for plan development

Future Implementation Focus

Forest Health

- **Continuing efforts to combat the threat of cogongrass through the Cogongrass Task Force.** This is a team of 23 state, federal, and private partners whose combined efforts have had far reaching impacts in educating the public about the threat of cogongrass, as well as helping locate all infested sites.
- **Completing the Nonnative Invasive Weeds pilot program.** This multi-agency team is focused on a two-year survey of invasive species seeds brought into the state by containers entering the Port of Savannah.
- **Remaining vigilant against the threat of Asian Gypsy Moth.** This serious forest pest is capable of causing severe damage to hardwood trees, especially oaks. In cooperation with the USDA Forest Service, the Georgia Forestry Commission has deployed traps to detect the presence of the gypsy moth. While there are no currently known infestations in Georgia, the threat is always present.

Forest Legacy

- **Leveraging multiple partnerships for increased capacity to protect lands.**

Fire Management

- **Ensuring that the acres of prescribed burning continue to occur in Georgia and that air quality is not negatively impacted by prescribed fire.** Recent reductions in PM 2.5 standards enacted by the EPA will require close and potentially more restrictive smoke screening processes to ensure smoke from prescribed fires is dispersed. New and improved meteorological predictors may have to be developed to better prepare for prescribed burning.
- **Continuing to obtain competitive grant funding to enhance wildfire prevention and mitigation activities in Georgia.** New allocation processes may reduce or threaten the level of grant funds available to the Southern Area.

Reforestation

- **Demonstrating a genetic gain of one percent volume growth each year in GFC pine seedlings.**
- **Increase the number of acres planted each year in Georgia.**

Forest Utilization and Marketing

- **Defining biomass sustainability in a manner to satisfy European market criteria.**
- **Shaping the definition of “qualified biomass” to ensure relevance of the industry in domestic markets.**
- **Growing the industry through new trends and possibilities.** Changes in biomass, cross-laminated timber, and the possibility of a revival of the naval stores industry present exciting opportunities for wood products producers in the state.

Forest Stewardship

- **Maintaining incentive program to sustain production and focus on higher priority landscapes for multiple values.**

Sustainable Community Forestry Program

- **Incorporating trees into stormwater management plans.** The program has a goal of creating at least two large scale demonstration projects that will identify areas in a community where trees will have the most impact in stormwater management. These projects will highlight how trees can be incorporated into stormwater management plans.
- **Helping communities with storm mitigation and tree risk assessments.** The department is creating a training program that will focus on pre-storm assessments and mitigation efforts to minimize storm damage.

Water Quality

- **Ensuring proper BMP implementation, including education, inspections, and assurance exams.**
- **Internal GFC statewide firebreak inspections.**

Data Needs

The Georgia Forestry Commission has identified three areas that will make future updates to the Forest Action Plan easier.

- **Clear and consistent instructions from the federal level.** Changing expectations and mandates from the federal government can create confusion and inconsistency in state outcomes.
- **Incorporating more data layers into the analysis of our priority landscape areas.** Currently, the agency only focuses on forestland with a 12 digit HUC/ 30 percent forested/ greater than 50 percent intact. This excludes much of the working rural land that can benefit from GFC programs and services, including land that is critical for threatened or endangered species, highly erodible soils or land critical for conservation, or areas affected by the spread of invasive insects and diseases.
- **Up to date information from federal sources.** Many GFC programs rely on federal data, such as the Timber Product Output (TPO) online data. When this data is not regularly updated, it prevents the GFC programs from completing their tasks.



APPENDIX

Public and Partner Involvement

At the beginning of the Assessment and Strategy process, the GFC conducted a public survey to gather further information relevant to key state issues and the national priorities. The Georgia Forest Stewardship Steering Committee met several times to discuss relevant strategic issues and offer content to the Strategy. The committee has also functioned as a key reviewer of the Assessment and Strategy. Issues were placed in a survey on the GFC website for public comment and ranking. The issues, presented in order of their importance as determined by the public, include: Water Quality, Urban Sprawl, Conservation, Taxes, Biodiversity, Forest Health, Air Quality, Fire Management, Fragmentation/Parcelization and Changing Markets (Table S1).

Public Stakeholder Survey Results 144 Respondents													
Issue	Rankings Weight	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	Total	
Urban Sprawl	# Votes	41	28	7	6	11	5	4	9	16	17	144	2nd
	Subtotal	410	252	56	42	66	25	16	27	32	17	943	
Parcelization	# Votes	11	13	11	11	23	11	14	13	16	21	144	9th
	Subtotal	110	117	88	77	138	55	56	39	32	21	733	
Taxes	# votes	35	11	18	8	14	8	12	8	15	15	144	4th
	Subtotal	350	99	144	56	84	40	48	24	30	15	890	
Economics	# Votes	13	16	11	13	11	9	17	13	16	25	144	10th
	Subtotal	130	144	88	91	66	45	68	39	32	25	728	
Water	# Votes	32	12	17	23	18	10	15	8	5	4	144	1st
	Subtotal	320	108	136	161	128	50	60	24	10	4	1001	
Air	# Votes	12	15	13	7	19	21	11	17	17	12	144	7th
	Subtotal	120	135	104	49	144	105	44	51	34	12	798	
Biodiversity	# Votes	15	10	17	21	16	13	12	19	9	12	144	5th
	Subtotal	150	90	136	147	96	65	48	57	18	12	819	
Fire Management	# Votes	13	17	12	11	12	15	15	20	14	15	144	8th
	Subtotal	130	153	96	77	72	75	60	60	48	15	786	
Forest Health	# Votes	21	16	14	6	14	15	14	19	14	11	144	5th
	Subtotal	210	144	112	42	84	75	56	57	28	11	819	
Conservation	# Votes	28	20	19	12	12	12	14	5	3	19	144	3rd
	Subtotal	280	180	152	84	72	60	56	15	6	19	924	

Table S1

The Georgia Forestry Commission coordinated with the State Forest Stewardship Coordinating Committee, State Technical Committee, Georgia Urban Forest Council, Georgia Statewide Water Management Plan Interagency Coordinating Committee, Invasive Species Task Force, U.S. Forest Service and The University of Georgia Warnell School of Forestry and Natural Resources to develop the Strategy and identify opportunities for program coordination and integration. The participation of these and other key partners from natural resource and related entities ensures that Georgia’s Strategy integrates, builds upon and complements other natural resource plans.



Integration of Other Plans and Assessments

Fire Management

The *Prescribed Fire in Georgia: A Strategic Plan 2008-2020* document presents the highest priorities based on the current and projected status for prescribed burning. Goals and objectives from this plan were incorporated into the *Georgia Statewide Forest Resources Strategy*. In addition, the Southern Wildfire Risk Assessment was used to identify the potential for serious wildfires within Georgia and prioritize areas where mitigation options may be desirable.

Forest Health

The Georgia Department of Natural Resources led an effort in 2008 and 2009 to bring many stakeholders together to formulate *The Georgia Invasive Species Strategy*. The Committee identified needs and existing efforts for response to or detection of invasive species problems within the state. As part of this process, the committee identified 51 invasive or potentially invasive plant species, 107 animal species and 30 disease-causing organisms. Based on this information, the committee set goals and objectives and proposed strategies for action. The purpose of the Invasive Species Strategy is to coordinate support for all state invasive species efforts through collaboration and full communication among agencies and organizations. Elements of it have been incorporated in the *Georgia Statewide Forest Resources Strategy*.

Forest Legacy

Georgia's Forest Legacy Assessment of Need (AON) is in accordance with the approval process that is required for FLP. The Forest Legacy Committee, comprised of members of the State Forest Stewardship Coordinating Committee and natural resource agencies and organizations with conservation easement experience, developed the AON document. Six FLAs were designated by the committee. Current demographic trends were analyzed along with other selection criteria as set forth in the Cooperative Forestry Assistance Act to give priority to lands.

Forest Stewardship

Georgia's Forest Stewardship Plan was an important resource used by the State Forest Stewardship Coordinating Committee during the development of the Statewide Forest Resources Strategy. The committee coordinates the Forest Stewardship Program and provides advice and recommendations to the State Forester concerning implementation of the Forest Legacy Program. The assistance and recommendations provided by the group during the development of the Assessment and Strategy ensured a product focused on the interrelatedness of the multiple benefits and needs of Georgia's forests.

Urban & Community Forestry

The Five-Year Plan for Georgia's Urban & Community Forest provides strategic direction for Georgia's urban and community forestry programs. The planning committee, convened by the GFC in partnership with the Georgia Urban Forest Council, includes representatives of local, state and federal governments, universities, businesses, non-profit organizations and military installations. The Plan's priority goals to value, conserve, manage and enhance Georgia's community forests were included in the *Georgia Statewide Forest Resources Strategy*.



Water

The *Georgia Comprehensive Statewide Water Management Plan* of January, 2008, prepared by EPD in cooperation with recommendations from the Water Council, stated that of all its natural resources, none is more important to the future of Georgia than water. Meeting future water challenges will require a more proactive and comprehensive approach. During the development of the *Georgia Statewide Forest Resources Strategy*, the Water Management Plan was used to identify public water supply watersheds and impaired streams on which to focus monitoring efforts. When developed and approved, the state must partner with the various users in the region to implement the plans. This plan will guide the stewardship of Georgia's precious water resources to ensure that they continue to support growth and prosperity statewide while maintaining healthy natural systems. Going forward, GFC will provide forestry information to the Regional Councils to guide future water quality and quantity policy issues.

Wildlife

Probably the greatest tool available for guiding efforts to sustain overall forest wildlife in Georgia is the "State Wildlife Action Plan" (SWAP). This document, entitled *A Comprehensive Wildlife Conservation Strategy for Georgia*, was completed by the Wildlife Resources Division of DNR in 2005 with the help of many private and public stakeholders. The SWAP focuses on those species and habitats believed to be most in need of conservation attention because of population declines and continuing threats. It lists 296 high priority animal species and 323 plants, along with a number of forest and non-forest habitat types. It addresses the extent and condition of essential habitat types, as well as habitat problems and conservation opportunities. It also addresses research, surveys, monitoring and habitat restoration needs, and provides an evaluation of existing conservation policies and programs. In addition, the SWAP outlines partnership opportunities and prioritizes the implementation of specific conservation actions. Strategies from the SWAP were incorporated into the *Georgia Statewide Forest Resources Strategy*.



List of *Georgia Statewide Forest Resources Strategy* Preparers:

Dr. Jon Ambrose, Georgia DNR
Constance Buford, GFC
Joe Burgess, GFC
Wendy Burnett, GFC
Scott Thackston, GFC
Devon Dartnell, GFC
David Dickinson, GFC
Frank Sorrells, GFC
Ken Parker, GFC
Gary White, GFC
Scott Griffin, GFC
Kassie Keck, GFC
Stasia Kelly, GFC
Dr. Elizabeth Kramer, UGA College of Agriculture and Environmental Science
Josh Love, GFC
Andres Villegas, GFA
Joan Scales, GFC
Jim Ozier, Georgia DNR
Dru Preston, GFC
Dick Rightmyer, U.S. Forest Service
Buford Sanders, GFC
Joanna Warren, GFC
Risher Willard, GFC