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Southern Region

Fiscal Year 2005

Monitoring and Evaluation Report

Chattahoochee-Oconee National Forests



Little River, Putnam County GA

September 30, 2006



2005

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Chattahoochee-Oconee National Forests

Exact observations and demonstrated truths.

September 30, 2006

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FOREST SUPERVISOR'S ADEQUACY STATEMENT

I have evaluated the monitoring results and recommendations in this report. The recommendations will be implemented, unless new information or changed resource conditions justify a change. I have considered and am making funding shifts in the budget necessary to implement these actions. In addition, additional funding has been requested from the Regional Office in response to these recommendations.

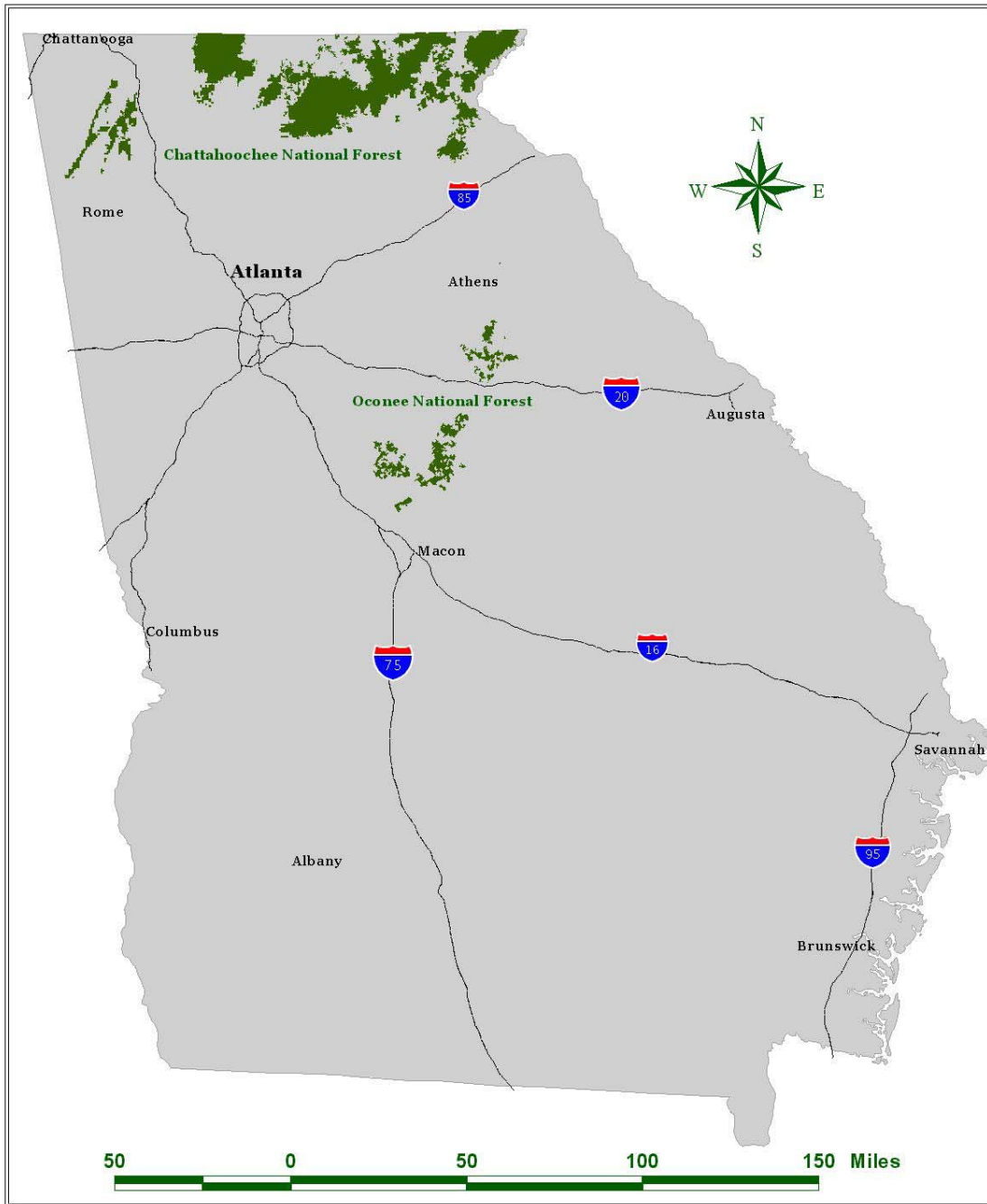
We have begun using portions of the monitoring and evaluation requirements associated with our revised Forest Plan as new projects are being implemented. However, some of the monitoring and evaluation recommendations made in this document are still based upon the older Plan, but will continue to guide our priorities until we completely integrate all of our projects under the new approved revised Forest Plan.

/s/ Kathleen Atkinson

KATHLEEN ATKINSON
Forest Supervisor

Date

September 30, 2006



INTRODUCTION

Monitoring and evaluation provides information to determine whether programs and projects are meeting Forest Plan direction, and whether the cost anticipated to implement the Forest Plan coincides with actual costs. Monitoring and evaluation is required by NFMA implementing regulations (*36 CFR 219.12(k)*) to determine whether requirements of the regulations and Forest Plan are being met.

The Forest Plan Chapter 5 establishes Monitoring Questions that are to be answered over the course of Forest Plan implementation. Monitoring questions address whether the desired conditions, goals and objectives of the Forest Plan are being met and whether Forest Plan standards are effective. Monitoring Questions are part of the Forest Plan and are stated in terms that will direct what will be monitored, but are not so specific as to address how monitoring will be accomplished.

Monitoring Questions will be further refined during Forest Plan implementation into Monitoring Elements and Task Sheets, which are more detailed, specific and measurable than the Monitoring Questions themselves. Monitoring Elements and Task Sheets may be modified and prioritized to guide monitoring activities over the course of Forest Plan implementation. The Monitoring Summary Table and sample Task Sheet (Appendix G) demonstrate the relationships between Forest Plan Goals, Objectives, Standards and Monitoring Questions, and indicate the nature of Monitoring Elements and monitoring details that are to be further developed during Forest Plan implementation. The Monitoring Summary Table and sample Task Sheet are presented here only for information and may be modified as needed to address changes in needs, priorities, availability of personnel and funding.

The concept of adaptive management is foundational for planning and Forest Plan implementation in a dynamic environment. Regulations require that Forest Plans be revised periodically (*36 CFR 219.10(g)*). However, Forest Plans may need to be more dynamic to account for changed resource conditions (such as large storms or insect outbreaks), new information or findings of science, or new regulations or policies. An effective monitoring and evaluation program is essential for determining when these needs may exist and facilitating quick resolution of a need for change.

The Monitoring Questions were developed to address three types of monitoring:

- Implementation monitoring – addressing whether the Forest Plan is being carried out
- Effectiveness monitoring – dealing with whether desired conditions are resulting
- Validation monitoring – to determine if information used in developing the Forest Plan has changed

Monitoring and evaluation provide information that can be used to keep Forest Plans current. Key results and findings will be used to determine if changes are needed in goals, objectives, standards, the monitoring questions themselves or research needs.

Monitoring and evaluation are distinct activities. The monitoring phase generally includes the collection of data and information, either by observation, direct measurement or compiling data from appropriate sources. Evaluation is the analysis of this data and information, and is used to assess if the Forest Plan is being implemented correctly and whether it needs to be changed. Forest Plan monitoring and evaluations (M&E) will be reported annually in the 'Forest Monitoring and Evaluation Report'.

Monitoring and evaluation may lead to adjustments of programs, projects, or activities or to changes or amendment to the Forest Plan itself. Alternatively, they may be used to recommend changes in laws, regulations, and policies that affect both the Forest Plan and project implementation (FSM 1922.7).

Forest Plan amendments and revisions should be responsive to changes that affect the Forest Plan, and may be needed at any time if a Forest Plan becomes out of date in some way. Within an adaptive management framework, the need to amend or revise the Forest Plan may result from:

- Recommendations of an interdisciplinary team, based on evaluation and monitoring results
- Changes in agency policy and regulations
- Planning errors found during Forest Plan implementation
- Changes in physical, biological, social, or economic conditions

The evaluation of findings under the following Monitoring Questions will lead forest managers to these determinations.

M&E documents progress and results of implementing the Forest Plan. This report is for the administrative unit of the Chattahoochee National Forest and the Oconee National Forest considered together as the Chattahoochee-Oconee National Forests.

The Process

Forest Plan monitoring is an ongoing task. Examples of formal monitoring are reviews, functional assistance trips, quality reviews, and specific data collection and analysis. Examples of informal monitoring include daily site visits to projects and visits, telephone calls, and letters to or from the public.

Objectives

Objectives of Quality Reviews are (1) to field examine a sample of activities associated with implementation of the Forest Plan with a full interdisciplinary team and (2) to document resource-specific and activity-specific monitoring results. Monitoring involved is both implementation monitoring and effectiveness monitoring. The reviews focus on answering such questions as:

- Were activities as planned consistent with the Forest Plan?
- Were the activities implemented according to what was planned?
- Upon completion of the activities, were the assumptions correct in both the planning of the project and the Forest Plan?
- Are Standards being applied appropriately, and are they doing what they are expected to do?
- Are mitigations being applied appropriately and working?

Evaluation

- The M&E Team evaluates the findings decides if action is needed, what the action would be, and how to go about it. Needed actions might include training of personnel and writing letters of clarification or a Forest Plan amendment. Even if items are in compliance, monitoring may lead to changes in implementation of future projects.

Functional Assistance Trips

- Within a function (such as wilderness, soil and water, or recreation), Staff Officers and specialists from the Supervisor's Office or Regional Office conduct their own reviews of their resource specialty. These reviews are carried out and checked for consistency with the Forest Plan. The results are documented and used in Forest Plan monitoring.

Plan in Hand

- The Forest has begun to implement these reviews beginning in the latter part of 2004. What they consist of is going out on the ground and looking and discussing with the implementing Ranger District an approved project plan, prior to final implementation.

Specific Data Collection and Analysis

- A great deal of routine data collection and analysis is done on the forests. Examples are mentioned in the detailed monitoring discussions of this report. Shown next are mostly additional examples by resource areas. These are only examples and are not intended to be a complete listing of data collection efforts on the forests. Keep in mind that to monitor you first must have baseline data (inventories) to which to make comparisons.

Archaeological/Cultural/Historic Resources

- Forest personnel carry out archaeological investigations year-round at any forest location that has the possibility of ground disturbance; plus, they perform formal excavations at some previously discovered historic or prehistoric sites.

Recreation

- Fee Collections – Fee collections at developed recreation sites are valuable to monitor recreation-use levels.
- Inventories – Mapping of dispersed (concentrated streamside camping, not informal campgrounds) recreation sites and collecting data on their characteristics is getting increasing attention across the forests. Inventories are used to plan and carry out rehabilitation work and use patterns.
- Traffic Counts – Annual, routine traffic counting on forest roads is an indicator of use patterns, destinations, seasons of use, numbers of visitors, and types of use. Traffic counts prioritize road maintenance needs.
- Visitor Contacts – Conversations with forest visitors at campgrounds, at Wildlife Management Area check stations, at trailheads, at visitor centers, at district offices, and through telephone calls help to quantify and qualify use in situations where fees and trail registers do not give all the information needed to improve the condition of the forest recreation sites.

Soil, Water, and Air

- Air Quality – Forest personnel are sampling the effects of ozone and atmospheric deposition on forest resources—such as vegetation, water, and soils—in the vicinity of the Cohutta Wilderness. They have collected and analyzed water samples from the Jacks River to assess effects of pollutants. Permanent plots with annual vegetation assessment are used to monitor ozone impacts.
- Ecological Classification – Forest personnel conduct integrated resource sampling on several areas on the forests to develop a multi-resource classification for ecosystem management. Examples of parameters sampled include aquatics, climate, geology, landform, soils, and vegetation.
- Inventories – Forest personnel complete soil surveys on the forests to identify soil types and their properties. They use survey data to develop alternatives for management actions and implement appropriate mitigation techniques to minimize impacts.
- Soil Productivity – Forest personnel examine areas with management activities—that is, timber harvest, prescribed burning, road construction, and recreation uses—during the life of projects to assess impacts on productivity. Surveys provide indication of the amount of area in degraded conditions in need of restoration.

Vegetation

- Forest Cover – Each year forest personnel inventory a portion of the forests for forest cover composition and condition and the information is updated in a computer database. In the future, this information will be matched with NTMB survey results, PETS species results, and fish/aquatic habitat conditions.
- Reforestation – Forest personnel examine each area reforested at least twice in the first 5 years to ensure that it has been successfully reforested. The results are formally reported to the Secretary of Agriculture.

Wildlife

- Bear Surveys - Forest personnel cooperate with the Georgia Wildlife Resources Division (GAWRD) in an annual bait station survey for bears. Visitation has shown a steady increase from 1983 through 2002. Likewise, legally harvested black bear numbers have increased and the population has probably reached carrying capacity. At the same time, nuisance bear reports to Georgia wildlife officials have begun to increase.

- Fisheries/Stream Aquatics– Forest personnel monitor several streams across the forests for fish populations and conditions each year. A subset of the streams sampled have been originally sampled in the 1950s and 1960s. In addition, some streams that are sampled have had, or will have, fish habitat improvement structures constructed to measure the fish response to these efforts.
- Hunting Check Stations – Forest personnel cooperate with Georgia Department of Natural Resources – Wildlife Resources Division (GAWRD) in staffing check stations on Wildlife Management Areas (WMA's) across the forests. They collect data on animal conditions, hunter success ratios, and age structure of game species populations. This is used in Forest Plan monitoring.
- Neotropical Migratory Birds (NTMB) and Breeding Bird Surveys – Wildlife Staff and qualified bird identification personnel collect and evaluate population and occurrence data as it relates to habitats, abundance, numbers of species, and effects of management on all birds that breed within the Forests. In recent years, these birds have been a focus of concern because of population declines in various parts of the nation. We currently are monitoring 200 permanent bird points annually, not including occurrence bird data which is collected all year at any location in or near the forests.
- Proposed, Endangered, Threatened, or Sensitive (PETS) Species Surveys – Forest personnel have surveyed thousands of acres of the forests for PETS species; and they survey more acres each year. The knowledge gained from these surveys has been used to develop risk assessments and Biological Evaluations for parts of the forests and for projects. This data is being integrated into the Geographic Information System (GIS) mapping coverage—such as forest cover, PETS species, and soils—to develop predictive models throughout the forests and to show where further inventories are necessary across the forests.

SUMMARY OF RESULTS

Following the table is a narrative that gives a more detailed description of what the team found and its recommendation.

Summary of Forest Plan Compliance by Monitoring Item Year 2005

Monitoring Question.	Brief Description	Meeting Plan Intent	Need clarification/ improvement					Goals Identified
			Management Prescription	Standard	Management Direction	Allocations	Outputs	
1	Rare Communities	Yes						
2	Landscape level composition	Mostly					X	
3	Key Successional Habitats	Yes						
4	Terrestrial Habitats	Yes						
5	Aquatic Habitats	Yes						
6	Forest Health Threats	Yes						
7	Federally listed and Viability Concerns	Yes						
8	Demand Species	Yes						
9	Recreation Experience	Yes						
10	Recreation Impacts on Environment	mostly		<u>Fw-127</u>				
11	Wilderness Character	Yes						
12	Wild and Scenic River Condition	Yes						
13	Scenery and Recreation Settings	yes						
14	Cultural	Yes						
15	Watersheds: Maintained and Restored	Yes						
16	Conditions: Wetland, Floodplain, Riparian	Yes						
17	Outputs Compare with Projected	Yes						
18	Silvicultural Requirements	Yes						
19	Plan Objectives and Standards Meeting Purpose	Most						Above, see #2 and #9

The following are possible recommendations:

- No changes needed; monitoring indicates that goals, objectives, management prescriptions, and standards are being achieved.
- Refer recommended action to the appropriate line officer for improvement in application of management area direction and standards interpretation.
- Forest Plan Objectives not being met.
- Forest Plan Amendment required.
- Modify or clarify the goals, objectives, standards or management prescriptions.
- Revise the schedule of outputs.

DETAILED MONITORING AND EVALUATION REPORT

The evaluation of findings under the following Monitoring Questions will lead forest managers to these determinations.

1. Are rare ecological communities being protected, maintained, and restored?

A Forest Plan goal, along with related objectives and standards, are designed to maintain and restore rare communities. To monitor accomplishment of these provisions and the effects that overall Forest Plan implementation will have on rare communities, trends in number of occurrences, locations, and conditions and effects of maintenance and restoration activities will be tracked.

At landscape scale, the short answer is 'no' for the Chattahoochee and 'yes' for the Oconee. On the Chattahoochee, the most common fire regime condition class is a '3' meaning significant departure from historic fire regimes and a high risk of loss of key ecosystem components. Forest communities typically have a dense midstory of shade tolerant and fire intolerant species that preclude the natural regeneration of the existing overstory. Prescribed fire was used to maintain the open habitat condition that Purple Coneflower and associates require. Plots in the prescribe burn areas have been established to monitor the effects of fire on the coneflower habitat.

Element : Trends in the conditions of each known rare community type.

Mountain bogs are being managed (and established) by the Georgia Plant Conservation Alliance to maintain the open character and hydrology of the sites. Encroaching vegetation is being removed by hand tools, and in some cases augmentation of the sphagnum mats is being accomplished with the help of the Atlanta and the State Botanical Gardens.

Due to management described above and Forest Plan standards, the trend in the conditions of the communities is one of improvement.

Element : Acres and/or number of occurrences of rare communities treated to maintain or restore desired conditions.

1. As stated above, 6 mountain bogs are receiving treatment to improve and restore their bog characteristics. See the 'Little Creek' project later in this document.
2. The Oconee District burned some canebrakes to restore and expand the sites. Monitoring will show if this was successful. RCW HMA's were burned.

2. Are landscape- and stand-level composition, structure, and function of major forest communities within desirable ranges of variability?

Success in maintaining and restoring composition, structure, and function of forest ecosystems within desired ranges of variability is reflected by both changes in forest condition and by levels of management and other effects that are shaping these communities. Monitoring will include tracking the abundance of major forest cover/community types and levels of management activities conducted to maintain and restore desired conditions. Population trends and habitats of Management Indicator Species are monitored to indicate effects of national forest management within selected communities.

There were 33,150 acres prescribe burned on the Oconee and the Chattahoochee.

At landscape scale, the short answer is 'no' for the Chattahoochee and generally 'yes' for the Oconee.

On the Chattahoochee, the most common fire regime condition class is a '3' meaning significant departure from historic fire regimes and a high risk of loss of key ecosystem components. Overstory canopies are typically closed on all sites with strong competition for growth resources and very limited habitat

niches for some herbaceous species. Forest Inventory and Analysis (FIA) data shows an average of between about 350 to 450 understory stems per acre within natural pine, pine-hardwood, and upland oak forest cover types. These are typically of fire-intolerant and shade tolerant species. They are the competitors to new regeneration of the overstory trees in either planned reforestation or – more especially – in response to natural disturbance. Pine mortality caused by southern pine beetle has altered composition and structure on upland sites and hemlock mortality caused by hemlock woolly adelgid is now in the process of altering composition and structure of riparian forest communities.

On the Oconee the prescribed burning program of approximately 20,000 acres/year (or about one-fifth of the District) has managed hardwood understories well enough that natural loblolly regeneration at least does establish and compete while the competitive status of existing oak and hickory is enhanced. First-time commercial thinning and pre-commercial thinning in young pine stands is accelerating the development of RCW foraging habitat while simultaneously reducing the SPB hazard. Sweetgum on the uplands is still too common and aggressive. In the riparian areas privet is precluding other native species, including river cane.

Except for fire use, no tool we use operationally covers enough ground fast enough to restore conditions that will ensure the predictable regeneration of our intolerant overstory species when they are lost to natural or un-natural events. The pace of restoration of degraded ecosystems is glacial in comparison to the need and likely so just in comparison to the known threats. The primary reason for the slow pace is the NEPA process and related processes; including appeal and litigation. A ‘fast track’ EA with no opposition can be done in a year of sustained effort. A contentious EA will take at least eighteen months, if not two years or more.

Population Trends and Habitats of MIS to be monitored

Indicator	Reasons for Selection
Hooded Warbler (<i>Wilsonia citrina</i>)	Changes in presence and abundance of hooded warblers in mature mesic deciduous forests will be used to help indicate the effectiveness of management at providing dense understory and midstory structure within these forest communities.
Red-cockaded Woodpecker (<i>Picoides borealis</i>)	Trends in populations of this species will be used to help indicate the effectiveness of management at maintaining mature pine forests in open, fire-maintained conditions. (See also Monitoring Question 7.)
Red-cockaded Woodpecker (<i>Picoides borealis</i>)	Trends in presence and abundance of these species in mature pine forest will be used to help indicate effectiveness of management at maintaining these communities in open fire-maintained conditions.
Field Sparrow (<i>Spizella pusilla</i>)	Trends in presence and abundance of these species in areas restored to woodlands, savannas, and grasslands would be used to help indicate effectiveness of management at establishing desired conditions in these restoration areas.

Element : Trends in hooded warbler occurrence in relationship to mature mesic, deciduous forests.

Hooded warblers frequent mature, mixed hardwood forests that are structurally diverse. Population numbers have increased slightly, both on the forest and statewide. The overall amount of preferred habitat of older hardwood stands has increased over the past decade, making suitable habitat abundant. The forest plan provides for a continuing abundance of hardwood areas preferred by this species and other late successional preferring wildlife.

Element : Trends in red-cockaded woodpecker (RCW) populations in relationship to mature pine forests.

The red-cockaded woodpecker (RCW) is a federally listed, endangered species throughout the Southeast. It does not occur on the Chattahoochee, but it is found to occupy some portions of the Oconee National Forest, which is currently following the guidelines and directions provided in the *USFW Recovery Plan the RCW (2003)* and the revised forest plan. A total of 500 acres of mid-story work within cluster sites and recruitment stands was completed. The Oconee initiated an insert contract to install and repair 60 artificial cavity inserts, and completed 17,500 acres of prescribed burning to maintain existing habitat. The total amount of preferred 60 year old pine and pine-hardwood with scarce mid-story habitat needed by the RCW continues to increase on the Oconee National Forest. There are 14 active clusters on the forest and this trend is stable. As more habitat work is completed, we expect an increase in active clusters in the future.

Element : Trends in field sparrow occurrence in relationship to woodlands, savannas, and grasslands.

The field sparrow prefers old fields, idle croplands and brushy and deciduous edge, and it is associated with early successional habitat as well. This type of habitat is somewhat limited on the Chattahoochee-Oconee National Forest. Some habitat improvement opportunities identified within the forest plan are currently being planned, and when implemented, these projects should enhance future habitat conditions for this sparrow and its associates. Good response was gained at the old 'restored' Redlands grazing allotment. This series of pastures is being reclaimed by removing the fescue grasses and allowing the native bluestems (andropogen sp) to grow and with the planting of sunflowers, sparrow and mourning dove response was very positive. This following year should bring even more nesting success.

3. Are key successional stage habitats being provided?

The Trail Ridge Timber Sale was recently completed. Several visits to ensure that stands that were harvested within that sale are meeting the Objective 3.8 under Goal 3 were conducted throughout this past year. This objective provides a key successional stage habitat for a variety of birds that occur in the

area. With early successional habitat (ESH) that occurs at higher elevation being regionally limited, a few birds that require this habitat for nesting and foraging are experiencing overall declines in numbers. The plan provides for the creation and maintenance of an annual average of 300 acres of ESH above 3,000 feet elevation to help offset and eventually reverse these declines. The Trail Ridge ESH area is an example of a habitat improvement project that complies with the Land and Resource Management Plan direction.

Continued progress is being made. Treated acres are up in FY06 in comparison to FY05. Additional early-successional habitat generally, and at high elevation specifically, was created in FY06. The Songbird Management Area on Grassy Mountain on the Cohutta District at about 3200 feet elevation was burned, re-setting succession once again on about 175 acres within a 362-acre burn unit. The Trail Ridge sale on the Chattooga District created approximately 73 acres of early-successional habitat around 3000 feet elevation. The Ivylog, Duncan Ridge, and Fanny Gap sales on the Brasstown created 131 acres of canopy gaps. However, the amount being provided yet lags the need. Localized areas, typically 6th level watersheds, have great improvement but large areas of the forest continue to have little or no early-successional habitat.

Element: Trends in abundance and conditions of high elevation early successional habitats.

Progress is being made at restoring the historic early-successional habitat (ESH) component on the Forest. In particular ESH at elevations > 2500 feet on the Chattahoochee is being provided and the bird response has been very positive.

Population Trends of MIS Monitored for Successional Habitat Status

Indicator	Reasons for Selection
Prairie Warbler (<i>Dendroica discolor</i>)	Trends in presence and abundance of this species in early-successional forests will be used to help indicate the effectiveness of management in achieving desired conditions within these habitats.
Chestnut-sided Warbler (<i>Dendroica pensylvanica</i>)	Changes in presence of this species in areas that provide high elevation early-successional habitats will be used to indicate effectiveness of management in achieving desired conditions within these sites.
Acadian flycatcher (<i>Empidonax virescens</i>)	Trends in presence and abundance of this species in mature riparian forests will be used to help indicate the effectiveness of management in achieving desired conditions within these habitats.
Ovenbird (<i>Seiurus aurocapillus</i>)-Chattahoochee NF; Wood Thrush (<i>Hylocichla mustelina</i>)-Oconee NF	Trends in presence and abundance of this species in mature deciduous forests will be used to help indicate the effectiveness of management in maintaining desired condition relative to forest interior habitats.
Scarlet Tanager (<i>Piranga olivacea</i>)	To indicate trends in presence and abundance of this species in the upland oak community, the scarlet tanager is selected to help indicate the effectiveness of management.
Swainson's Warbler (<i>Limnothlypis swainsonii</i>)	To indicate trends in early-successional riparian areas, the Swainson's warbler is selected to represent early-successional riparian habitats in the Piedmont (Oconee NF). It is strongly associated with canebrakes, tangles, and thick

	shrubby understories of open bottomland hardwoods and mixed forests.
Pine Warbler (<i>Dendroica pinus</i>)	The pine warbler is closely associated with pine and pine-oak forests, generally occurring only where some pine component is present. It therefore is an appropriate indicator of the effects of management in restoring and maintaining pine forests

Element : Trends in prairie warbler occurrence in relationship to early successional habitat.

The prairie warbler prefers to nest in shrub habitat, usually associated with thinnings or early to late early successional habitat. Abundance trends show a relatively stable population. Opportunities to create additional early successional habitat needed for this and associated species are provided in the forest plan, and plans are underway to provide this type of habitat. Prescribe burning helps to maintain this birds habitat,

Element : Trends in chestnut-sided warbler occurrence in relationship to high elevation early successional habitat.

The chestnut-sided warbler is typically associated with early succession type habitats in high elevation areas. This habitat is limited in Georgia. This bird is found on the Chattahoochee, but does not occur on the Oconee. The forest plan addresses the need for creating some high elevation, early successional habitat for the chestnut-sided warbler and other associated species. Some progress has occurred with 75 acres of high elevation habitat created in FY 2006. However, overall trends in abundance are still relatively low. In some larger natural openings created by large trees or groups of trees, this bird can be found.

Element : Trends in Acadian flycatcher occurrence in relationship to mature riparian forests.

The Acadian flycatcher is strongly tied to riparian habitat area on the forest. Its population has remained fairly stable within the last 5 year period. Acres of riparian habitat are numerous and expected to remain fairly constant in the future. The use of streamside and riparian protection standards provided in the forest plan will continue to ensure the quality and quantity of the riparian corridor habitat that is needed by the Acadian flycatcher.

Element : Trends in ovenbird occurrence in relationship to mountain forest interior communities.

The ovenbird is strongly associated with mature forests that are sometimes referred to as interior forest habitat. It can found in hardwoods, or mixed stands with mostly closed canopies. It is more commonly found on the Chattahoochee than it is on the Oconee National Forest. Relative abundance trends show a high number of occurrences of this species on the forest. This would seem to suggest that mature forest and interior forest are also abun-

dant on the forest. Forest plan standards will help ensure that an abundance of late successional habitat will be maintained on the forest in the future.

Element : Trends in wood thrush occurrence in relationship to Piedmont forest interior communities.

The wood thrush is a forest bird found mainly in moist deciduous or mixed stands. Somewhat more frequently on the Oconee National Forest, overall the population trends have remained mostly stable over the last decade. The revised forest plan standards should continue to provide for the protection of the moist forest type areas that are preferred by the wood thrush and its associated species.

Element : Trends in scarlet tanager occurrence in relationship to upland oak communities.

The scarlet tanager is found mainly in upland oak communities. It is fairly common on the Chattahoochee, infrequent on the Oconee (summer tanagers are frequent there). Forest plan standards are in place to make sure that upland oak habitat for this bird and associated species will be present in the future.

Element : Trends in Swainson's warbler occurrence in relationship to Piedmont riparian habitat, canebrakes and thickets.

The Swainson's warbler is found in early successional habitats within the Piedmont, meaning that it would be expected to occur more often on Oconee National Forest. It is mainly associated with canebrakes and thick understory habitat in bottomlands near water. Occurrence levels are so low on the forest that a population trend has not been established. There are specific provisions in the revised forest plan to manage and restore canebrake habitat where it historically or currently occurs. This should have a positive effect on the Swainson's warbler.

Element : Trends in pine warbler occurrence in relationship to pine and pine-oak forests.

As its name implies, the pine warbler frequents pine forests, mainly in the mid to late successional stages. It is more abundant on the Armuchee/Cohutta and Oconee Ranger Districts, where more pines predominant. Its overall population on the forest is relatively stable. Little change in the pine forest habitat is expected and controlling southern pine beetle infestations in the future, as provided in the forest plan, will also benefit the pine warbler.

Element : Trends in acres of wildlife openings.

There are about 1,300 acres of openings on the Chattahoochee National Forest, and 350 acres of permanent openings on the Oconee National Forest. Of this total of 1,650 acres, approximately 1,175 acres are on Georgia DNR Wildlife Management Areas (WMAs) and are maintained in cooperation with the DNR. There are 475 acres of opening outside the WMAs that are maintained

by the Forest Service. This key habitat type is being maintained, and may even be increasing slightly due to some linear wildlife opening and “daylighting” projects that are currently underway on the Chattahoochee National Forest.

Element : Trends in abundance and distribution of landscapes important for forest interior birds.

Interior forest is plentiful on the forest and it is unlikely that this key habitat type will be reduced in abundance during the life of the current plan. All of the bird MIS that are linked to interior habitat needs are increasing or stable in occurrence and abundance.

Element: Trends in other permanent openings.

None to report, status quo.

4. How well are key terrestrial habitat attributes being provided?

Special habitat attributes such as hard and soft mast, den trees, snags, and downed wood are necessary elements for certain species. A variety of Forest Plan goals, objectives, and standards provide for the protection, restoration, and maintenance of these elements. Trends in the abundance and condition of key terrestrial habitat attributes and associated Management Indicator Species will be monitored.

MIS Monitored for Key Terrestrial Habitat Attributes

Indicator	Reasons for Selection
Pileated woodpecker (<i>Dryocopus pileatus</i>)	Trends in presence and abundance of this species across the forest will be used to help indicate the effectiveness of management in maintaining desired condition relative to abundance of snags.

Element : Trends in pileated woodpecker occurrence as an indicator of ‘snag’ abundance.

The pileated woodpecker is found in a variety of forested habitat. It requires fairly large trees that when dead and standing, produce snags that it uses for creating nesting cavities. Therefore, it is tied to more mature forests (both pine and hardwood) for its reproduction needs. Monitoring data shows that this large bird is doing well on both forests (and in the state). Forest planning provisions designed to ensure and maintain large snags for nesting are in place.

Element: Trends in hard mast production.

No data this year

Element: Acres of vegetation management in riparian areas.

None to report

5. What is the status and trend in aquatic habitat conditions in relationship to aquatic communities?

Since the forest plan provides for the protection of riparian ecosystems, and at the same time allows 1-2% of the riparian corridor in early successional forest (ESH) condition (Objective 4.1 under Goal 4), it is necessary to do pre-disturbance and post-disturbance monitoring on areas where we are planning to manage for disturbance dependant wildlife species. This monitoring is occurring on the Flat Branch ESH project on the Tallulah Ranger District. Several field visits with Biologists and Soil and Water Specialists were made to this area, and monitoring protocol has been established.

Element: Overall stream health

No information received.

Element: Trends in water quality parameters and physical habitat conditions in relationship to aquatic communities.

25 streams were sampled in conjunction with GA DNR. Purpose was to identify health, numbers and species of trout populations.

The Conasauga watershed was sampled by snorkeling and electro-fishing. Both fish and mussels were sampled.

Shocked the Ocmulgee River in conjunction with GA DNR. Shocked over several hundred fish; Of the ones taken were 116 shoal bass (20 inches, weighing 6lbs and more), 50 largemouth bass (largest bass was 7 lbs), 10 snail bullheads, and hundreds of sunfish spp. Good reproduction on the bass (spotted, shoal, and Largemouth) and sunfish (Bream, redear, etc) many suckers and gars were showing up as well.

6. What are status and trends of forest health threats on the forest?

Measures designed to control or mitigate negative effects of insects, disease; native, non-native invasive species, air pollution, and high fuel levels are important aspects of this Forest Plan. Trends in occurrence and effects will be monitored.

Low to moderate Southern Pine Beetle (SPB) is forecast for summer 2007 based on routine annual monitoring with baited traps. Gypsy moth baited traps have not detected any new occurrences and no control is planned. Hemlock wooly adelgid (HWA) suppression using both biological control by release of predator beetles and systemic insecticide by soil injection continue. The HWA has spread through an estimated 50% of the natural range of hemlock in Georgia.

The spread of non-native invasive plant species is of concern. In 2006 the first occurrence of Chinese bittersweet *Celastrus orbiculatus* on the Forest

was found in Rabun County. Privet continues to expand and has pre-empted other species over a large area; especially in riparian areas and in the Piedmont and foothills of the Blue Ridge.

More subtle forest health threats continue to worsen. Advanced age and/or over-stocked stand conditions are stress factors within most of our forest cover types. The Oconee pre-commercially thinned 220 acres of pine seedlings and saplings in FY06, helping to reduce SPB hazard.

There is a concern that loblolly greater than 80 years of age is at risk to root disease, including littleleaf, southern pine beetle, *Ips* beetle, turpentine beetle, *Leptographium* fungus, and a host of other threats on the Oconee and especially within the Sub-Habitat Management Area (HMA) for the RCW. A mortality rate in this stratum that is substantially higher than in younger, more vigorous loblolly stands could affect the quality and availability of RCW nesting habitat. If a trend of increasing mortality develops, RCW habitat conditions could deteriorate rapidly.

Element: Native and non-native insect occurrence and control.

The hemlock woolly adelgid continues to progress westward across Georgia and is expected to sweep throughout the hemlock range in the southeast. In 2005 the Southern Regional Forester decided to allow suppression throughout the Chattahoochee within about 144 areas encompassing about 20,000 acres to conserve genetic diversity. Pre-commercial and commercial thinning projects in young pine stands have reduced the SPB risk but activity continues to lag the need and one or more SPB outbreaks can be expected before the 'backlog' is caught up.

Non-native invasive species are widespread on both the Chattahoochee and Oconee. A few small scale projects have begun to test eradication tools and techniques for Nepalese brown top grass and Chinese privet. The conversion in FY05 to FSveg as the Forest Service national vegetation database provides a much greater ability to collection data on these species and to share it widely. Co-operative work is underway with the American Chestnut Foundation to develop blight resistant chestnut for out planting.

Element : Trends in the number of occurrences and/or acreage of selected non-native species.

Japanese stiltgrass (*Microstegium vimineum*) appears to be increasing, primarily along road banks. It is seen in many types of habitat across the Forest and can tolerate shaded conditions, unlike many grass species. It occurs seemingly "in the middle of nowhere" including areas with no recent ground disturbance. Even with a concerted effort to rid areas of this grass, it is so

pervasive both on Forest and on private land, it is doubtful this species can be eradicated.

Sericea lespedeza (*Lespedeza cuneata*) is no longer used on the Forest for erosion and revegetation projects. However, it is still commonly used by highway departments and easily invades adjoining Forest Service lands. Occurrences seem to be stable or in some areas, increasing, and will not likely decrease without the use of herbicide.

Japanese knotweed (*Polygonum cuspidatum*) is known only from one site on Forest Service land. It occurs along a road in a 50 ft. x 20 ft. area. This plant is common on private land in the surrounding area, especially around Copperhill, TN.

Chinese Privet is widespread throughout the stream courses (riparian corridors) of streams on the Oconee Ranger District.

Element: Effectiveness of treatments to eliminate or control non-native invasive species.

Study ongoing with Southern Experiment Station on the Oconee Ranger District to ascertain the most economical method of privet control.

7. What are the status and trends of federally listed species and species with viability concerns on the forest?

Although the federally-listed red-cockaded woodpecker (RCW) on the Oconee Ranger District is experiencing low overall numbers of clans and individuals, the habitat continues to improve and increase. RCW recruitment sites were inspected on the Oconee and they are currently in compliance with Plan direction. Objective 8.D-08 calls for thinning of an average of 2,500 acres of pine types for the first seven years of the plan to keep southern pine beetle hazard low. That objective is being met with thinning currently being completed for the RCW. Besides reducing the risk of southern pine infestations in the future, the thinnings will also provide more favorable foraging habitat for these birds. We are optimistic that RCW numbers will increase over time as the habitat within the Oconee HMA continues to improve.

Element: Status and trends of selected aquatic biota.

Annual surveys have been conducted in all aquatic T&E (mussels and fish) watersheds where T&E are present on Forest Service lands. These surveys have been by visual examination by snorkeling or with view buckets at the sites and counting the T&E. Results from these surveys indicate no significant changes in number of T&E at these sites over time.

Element: Status and trends of other federally listed and viability concern species:

see aquatics previous

Monitoring for Threatened and Endangered Species

Indicator	Reasons for Selection
Red-cockaded Woodpecker (Picoides borealis)	Trends in populations of this species will be used to indicate effectiveness of management activities designed specifically to meet recovery objectives for this species. (See also Monitoring Question 2.)
Smooth coneflower	Trends in populations of this species will be used to indicate effectiveness of management activities designed specifically to meet recovery objectives for this species.
Georgia aster	Trends in populations of this species will be used to indicate effectiveness of management activities designed specifically to meet recovery objectives for this species.

Maintaining habitat capable of supporting viable populations of native and desired non-native species is also an important goal of the Forest Plan. Many objectives and standards are designed to meet this goal. Monitoring will focus on trends for populations and/or habitats of species of viability concern. Where feasible, species monitoring will often be accomplished by monitoring communities of species (e.g., fish, bats, birds). Individual Management Indicator Species have been selected because their viability is critically dependent on national forest management.

Element: Population trends in red-cockaded woodpecker (RCW) as an indicator of effectiveness of recovery of the species.

The RCW is holding steady. The habitat improvement projects have begun to be implemented to change the existing poor conditions of the sub-HMA and plans to improve the HMA habitats have been approved. These treatments will have a positive effect and nesting successes should begin to increase.

Element : Population trends in smooth coneflower as indicator of effectiveness of management on recovery of the species.

The smooth coneflower (*Echinacea laevigata*) is a federally listed plant found on the Chattahoochee National Forest, only on the Chattooga Ranger District. On the Chattahoochee, the species occurs primarily along roadsides and utility rights-of-way. The Forest has a long-term goal of expanding the coneflower populations to more natural settings. Historically, the species was found primarily in xeric savannas and open woodlands, maintained in an open condition by lightning-caused fires or burning by Native Americans (Davis et al. 2002). Gaddy (1991) states that smooth coneflower sites have abundant sunlight with little herbaceous competition. Therefore, coneflower sites on the Forest are being maintained and expanded by prescribed burning and hand method removal of encroaching woody vegetation.

Coneflower populations appeared to be doing well in 2005 and 2006, with numerous blooms and new vegetative rosettes being present. In 2006, approximately 315 acres of habitat with coneflowers and coneflower potential

were burned to improve the habitat and to eventually create open woodlands. Sites adjacent to known populations of coneflower were evaluated on the ground for additional prescribed burning and vegetation removal to occur in FY 2007 for the purpose of expanding the coneflower habitat. This management is intended to meet the Land Management Plan objective of increasing the number of smooth coneflower populations by improving and/or increasing available habitat for natural recruitment.

Davis, E., Jr., C. McRae, B. Estep, L. Barden, and J. Mathews. 2002. Vascular Flora of Piedmont Prairies: Evidence from Several Prairie Remnants. *Castanea* 67(1):1012.

Gaddy, L .L. 1991. The Status of *Echinacea laevigata* (Boynton and Beadle) Blake. Unpublished report to the U.S. Fish and Wildlife Service, Asheville, NC. 24 pages plus appendices and maps.

Element : Status and trends of cerulean warbler.

No change since last year

Element : Status and trends of golden-winged warbler.

No change since last year

Element : Status and trends of selected bat communities.

No change

Element : Status and trends of selected plant communities.

No change

Element: Status and trends of other federally listed and viability concern species.

No change from previous years

8. What are the trends for demand species and their use?

The Forests provide large public ownership with opportunities for hunting, fishing, wildlife viewing, and collection of special forest products. Monitoring of some game species populations and/or harvest levels are done in coordination with the GA DNR. Some of these species are selected as Management Indicator Species where effects of national forest management are important to meeting public demand. Some species that are collected as special forest products will be monitored through management of the permitting process.

MIS Monitored for Demand Species

Indicator	Reason for Selection
Black Bear, White-Tailed Deer	Trends in harvest levels and hunting demand will be used to help indicate effectiveness of management in meeting public demand for these species.

The black bear population has been steadily increasing for the past 25 years, with plenty of preferred habitat available on the forest. Bait station data for 2006 revealed a record high number of visitations, which seems to suggest that the bear density is at a high level on the forest, and may be nearing carrying capacity. Harvest of black bears during the North Georgia hunting season also reflects a healthy population. Most suitable habitat in the mountains of Georgia is presently occupied with bears. We continue to see increases in the urban interface situation and this contributes to increased bear-human interactions. The Forest Service and the Georgia DNR are working together to promote bear awareness in the state. Bear-proof trashcans continue to be installed in recreation areas on the Chattahoochee National Forest. We also have a closure order in effect that makes it against the law to feed the bears.

White-tailed deer

White-tailed deer harvest regulations and habitat improvement techniques such as forest harvesting and thinning, prescribed burning and wildlife opening development have helped create a fairly healthy deer population throughout Georgia. Deer harvest data seems to indicate that populations in the mountains and ridge and valley are stable, with some fluctuations due to differences in annual mast production. Piedmont harvest data shows a higher overall deer density, and regulations have been liberalized to help reduce population numbers to within habitat capability levels. The Chattahoochee-Oconee National Forest with assistance from the Georgia DNR will continue to monitor deer densities, and the population is expected to remain relatively stable in the near future.

Element: Trends in the number of permits issued and harvest levels for selected special forest products.

The number of permits issued for ginseng digging has been stable. However, the number may decrease in the future due to new requirements that any ginseng exported must be at least 10 years-old. It should be noted that the issuance of permits for ginseng does not reflect the actual amount that is harvested on the Forest. The majority of the digging is conducted illegally, without obtaining a permit. State export data gives some indication of harvest levels, but does not distinguish between that harvested on private land versus out-of-state, or on Forest Service land. Nor does it capture ginseng dug for personal use.

9. Are high quality, nature-based recreation experiences being provided and what are the trends?

Element: Results and trends in user satisfaction ratings [36 CFR 291.21(a)]

Wilderness use continued to be down in years preceding 2006. Current 2006 use trends in terms of District wilderness use has been stable with use figures consistent with 2005. This fluctuation in use, prior to 2006, may be in response to the District's Limits of Acceptable Change mgt plan. Suggestions for better response to this monitoring question as related to Forest Plan Goals and Objectives.

Objective 31.1 – Use Cordell and San Dimas research to identify new recreation trends yearly and evaluate compatibility with Forest niche and evaluate possible changes. Complete any needed changes within that FY. Work with public affairs to create user surveys to be distributed to sites.

Element: Backlog of facility and trail maintenance needs and trends

Through the Infra database operations/applications condition surveys are performed for facilities as they relate to the Forest's developed recreation program of work. The same application of Infra database techniques is also performed with respect to current condition/deferred maintenance backlogs trail maintenance through condition surveys. Condition surveys for developed recreation facilities, and trails are completed on a 5 year interval. F A & O buildings/sites are inspected annually with ongoing maintenance/ improvement needs identified at that time. The resulting maintenance/improvement needs are entered in the Infra database.

As part of the Chattahoochee-Oconee National Forest's trail analysis process for determining new construction criteria, trail maintenance criteria, and development of a policy to support the Forest's "No Net Gain Philosophy" with respect to current Forest trail mileage, all trails on the Forest were inventoried beginning in Fiscal Year 2004 and ending in mid-Fiscal Year 2006. The underlying premise of the field oriented inventorying was to accrue accurate trail mileage in a GPS data dictionary format to for assessing both maintenance needs and to verify actual trail mileage. Based on this inventory and the data dictionary information compiled from each trail, maintenance needs have been identified both at a current and deferred maintenance level. Pending development of a revised Infra condition survey process, these trail needs will be tracked in the Infra data base as are the developed recreation sites with their associated features, i.e. fire rings, picnic tables, and building infrastructures. In 2006, 22.3 miles were field verified in the Forest's condition survey process. Use type (hiking, horse, bike, and OHV) were recorded. The condition survey review afforded the individual inventorying the respective trail to record condition surveys as related to waterbar, stream crossing impact, side slope erosion, camping impacts, step/stairway "side stepping" as well as other general overall trail conditions.

Developed recreation condition surveys have been completed for Fiscal Year 2006 for thirty three developed recreation sites ranging from campgrounds, boating launches, picnic sites, documentary, observation, and interpretative sites. The completion of these surveys affords the Forest a 100 percent attainment for condition

survey reporting with respect to developed recreation sites for five year interval reporting. Beginning in Fiscal Year 2007, condition surveys for developed recreation sites will begin again. The rule for recreation condition surveys is that these sites must be surveyed once over a five year period. Theoretically, over a five year period, 20 percent of the Forest's 86 developed recreation sites will be inventoried. The condition survey target for Fiscal Year 2007 is 23 developed recreation sites- roughly four sites per District.

Chattooga-Tallulah RD

Martins Branch Dispersed Recreation Site improvement - restoration of heavily used dispersed recreation site. Location - Chattahoochee River at Forest Service Road 178 bridge.

District implemented restoration of worn-out dispersed recreation site at Martin's Branch bridge over Chattahoochee River. Placed large native stone along FS road to restrict vehicle entry, revegetated area to re-establish vegetation ground cover. Project implemented to improve watershed condition and move recreation impacts to suitable locations in watershed, off main channel of River. Site visit March 2006. Project complies with Forest Plan direction for desired conditions of Management Prescription 11 and standards for site restoration.

Chattooga-Tallulah District -

Anna Ruby Falls wastewater line - installation of gravity flow wastewater line. Location - Anna Ruby Falls Visitor Center to Unicoi State Park along FS Road 242 and Smith Creek.

Forest Service project to provide wastewater treatment for Visitor Center facilities and discontinue use of on-site septic tank system. Installation required construction of trench in paved road shoulder, 3 miles total distance, to provide hook-up to existing wastewater lines in Unicoi State Park property. Several trench segments within 100 feet of Smith Creek, designated primary trout stream. District & S.O. staff worked with local county erosion & sediment office to secure land disturbing permit, and with GA Environmental Protection Division to secure trout variance. Project involved construction of trench using phased opening and closing of trench on daily basis with revegetation measures on same day. Construction design and implementation in compliance with Forest Plan, State law requirements and local erosion & sedimentation control ordinance. Site visits in October 2005, February and March 2006. Installation completed in March-April 2006.

Element: Trends in health and safety associated with recreation programs

Chattahoochee River Road - hazard tree and daylighting proposal. Location - Chattahoochee River Road, FS Road 44, from private land on south end to Unicoi Gap intersection with GA Hiway 17/75 on north end. District proposal to remove trees within road R-O-W to improve daylighting conditions and remove potential hazard trees. Stream side areas visited to evaluate effects of tree removal on shade, erosion and

water quality. Site visits in February & July 2006. Project complies with Forest Plan direction.

Element: Changes in the amount and kind of opportunities provided

No Changes this period

Element: Changes in accessibility of developed sites and facilities

No changes

Element: User impacts, conflicts and effects within the A.T. corridor

Certain areas of the Appalachian Trail in Georgia demonstrate impacts to soil and vegetation from overuse. Typically, the impacted areas suffer from “campsite sprawl”, where tent sites and fire rings have trampled vegetation and ground cover. Parking areas adjacent to roads also tend to create an increasing sprawl.

The Chattahoochee-Oconee National Forests and Georgia Appalachian Trail Club have taken steps to curb campsite sprawl, and old wore out trail sections at some locations. Tent pads have been built into the side of slopes to discourage camping anywhere else in the area. These designated tent sites have been constructed at Springer Mountain, the Gooch Mountain shelter, and at Slaughter Spring (to replace camping at Slaughter Gap, which has been closed and revegetated).

Remaining impacted areas can be divided into three principal categories: riparian areas, roadside areas, and campsites in gaps with relatively flat terrain.

Riparian Areas: Impacts from overuse are clearly visible at Stover Creek near the hiker’s shelter (NOTE: This problem will be alleviated in 2006-2007 by a trail relocation away from the flat terrain near the creek and the construction of a new shelter at a different location). This project will entail the relocation of 2 miles of hiking trail to the relocated Stover Creek trail shelter and privy site. An associated approach trail from the Appalachian Trail to the shelter/privy site approximately 500 feet will be constructed. Supervisor’s Office Outdoor Recreation Planner reviewed the progress of construction on the Stover Creek shelter and associated moldering privy on 6/28/2006. Appalachian Trail Conservancy personnel were on site to conducting an accessibility review of the shelter. Several accessibility issues were discussed to bring the shelter into standard with ADA rules. Additional impacts of camping overuse are noted along Long Creek north of FS 58 at Three Forks, at the Justus Creek crossing, and at Lance Creek (located in the Blood Mountain wilderness). Future plans are to rehabilitate the Justus and Lance Creek sites. The outdoor recreation planner on the Brasstown Ranger District made two visits, 6/30/2006 and 8/3/2006, looking at a reroute proposal from the Georgia Appalachian Trail Club. This project proposal would move a 1.75 mile section of the Appalachian Trail away from Justus Creek. The outdoor recreation planner also looked at the camping overuse along Justus and Lance Creeks during these field visits.

10. What are the status and trends of recreation use impacts on the environment?

The Forest Plan is committed to providing recreational opportunities that are compatible with stewardship of forest resources. Impacts of motorized uses, site occupancy, and large volumes of users on riparian, stream and aquatic resources, vegetation, and soils will be monitored across all forest settings. These have not changed from the previous years. As funding becomes available, re-routes, closures, and reconstruction does take place.

Element: Trends in illegal or unauthorized recreational uses observed and the effects of these uses.

Historically, the Chattahoochee-Oconee National Forest has had its share of problems with incendiary and game violations. Although these problems remain, the Forest has seen a marked increase in other violations. Recreation use offenses, land occupancy and trespasses, theft and vandalism of government and private property, arson, damage to natural resources, mostly caused by illegal use of off road vehicles, possession of marijuana, methamphetamine and cocaine, archaeological resource theft, timber and firewood theft, litter and trash dumping. Violations of Georgia State Law reference to illegal hunting, fishing, under-age drinking, revoked or suspended license are among violations with the greatest increase. These violations represent a growing threat to forest officers enforcing our laws and regulations and can deteriorate the safe, family type environment enjoyed by our visitors.

Element: Recreation activities contribution to the degradation of terrestrial, aquatic, rare or riparian areas or adversely affecting water quality.

None identified this period.

Element: Continued validity of plan decisions regarding OHV use designation and determining whether an area is open or closed to OHV use.

The Forest during fiscal year 2005 initiated a trails analysis team with the objective of developing criteria in conjunction with the Forest Plan to serve as a guide for the Forest to utilize both in trail maintenance and new construction. As part of this analysis process, the issue of OHV use designations was addressed.

OHV vehicles (ATVs and motorcycles that are not recognized as licensed vehicle in the State of Georgia) are restricted to the Forest's 133 miles of designated OHV trail systems. New OHV trail construction must adhere to Forest Land Management Plan screening criteria.

This includes:

- 1.) Compatibility with Management Prescription Direction
- 2.) Must be compatible with watershed conditions
- 3.) Must minimize conflict with wildlife habitat and riparian/ fisheries habitat
- 4.) Must address potential conflict between user groups

- 5.) Must minimize conflict with adjacent private landowners
- 6.) Must be operationally feasible- the emphasis in this criteria setting is for at least 20 miles of route in total, including loops.

Districts managing its' network of OHV trails are closing their trails to the public from January 1st- March 31st each year due to freezing and thawing conditions which are prevalent during this period of time. These trails are also closed during periods of rainy weather associated with hurricane activity that has impacted Georgia during the past several years. Districts are alerting the public through "call before you ride" informational avenues accomplished through the Forest's internet site, voice message on District's automated answering system, and advanced advisory notices on the information- based bulletin boards located at the OHV trailheads.

Recommendation: Close Anderson Creek permanently. Continue the closing of illegal trails that are directly impacting water quality or aquatic habitat. Maintenance will continue at all designated trail systems. Still in the process of closure on the Anderson Creek Trail system.

11. What is the status and trend of wilderness character?

Wilderness character is comprised of both human and biophysical elements. Monitoring the human elements requires monitoring trends in the human experiences, i.e. solitude, crowding, etc., as well as trends in the use patterns and visitor impacts. User monitoring and surveys will allow for tracking trends among visitors to wilderness, while trailhead use and identification of sites with impacts will allow us to track movement and activities within wilderness and relationships to biophysical effects. Monitoring physical elements is important for tracking changes to the natural systems due to natural and human influences within and outside the wilderness. Although there are many components to the physical element, air quality is viewed as a basic indicator of wilderness health. Additionally, changes that are occurring in wilderness due to the fire regime, especially in fire dependent communities, will be monitored. Monitoring will also be accomplished as under number 9, previously.

Element: Is wilderness visitor use within limits that do not impair the values for which the wilderness was established? [36 CFR 219.18(a)]

No new findings this period. See #9.

Based on estimated wilderness visitor use totals of 245,000/ year on the Chattahoochee-Oconee National Forests, - survey results indicate that males comprise 53 percent while females 47 percent of the individuals seeking wilderness recreational pursuits. The greatest age group seeking a wilderness recreation experience is between 40- 49 years (30.37 percent) of age followed by 30- 39 (15.49 percent), and 20-29 (14.92 percent).

12. What are the status and trend of Wild and Scenic River conditions?

The two main elements in determining the eligibility and suitability of a river for inclusion in the National Wild and Scenic Rivers System are a free-flowing condition and the presence of Outstandingly Remarkable Values. Rivers determined to be eligible, or eligible and suitable that have not yet been designated by Congress must have those elements protected until a further designation is assigned. Monitoring changes to these elements will help us evaluate our management of these rivers on our forests. Monitoring (recreation use) for these streams will also be tied to number 9, previously discussed.

The Chattahoochee- Oconee National Forests continues to manage the Chattooga River to protect and enhance the outstandingly remarkable values of the river and its surroundings. The Sumter National Forest continues to have the lead authority for all boating/ floating use (commercially – guided and self- guided) on the Chattooga River when it involves the main channel from Burrell's Ford to Lake Tugaloo, as well as the West Fork.

The Sumter National Forest is presently re-studying the upper segment of the Chattooga to decide whether or not to allow boating in this currently off-limits area.

13. Are the scenery and recreation settings changing and why?

Scenery and recreational settings are managed by establishing Scenic Integrity Objectives (SIO) and Recreation Opportunity Spectrum (ROS) class management direction. Management of scenery and settings are essential in the management of recreational experiences and the quality of the environment. Changes in scenic quality of the forest and the recreation settings will be monitored.

No changes from the previous years findings.

14. Are heritage sites being protected?

Compliance with the National Historic Preservation Act is essential during implementation of this Forest Plan. The requirement that sites eligible for the National Register of Historic Places be identified and protected before ground disturbing activities occur must be met. Monitoring will be done to assess how well sites are being identified for protection and whether site protection measures are effective in preventing site loss.

Two historic properties were impacted by ground disturbance activities on the Chattahoochee-Oconee National Forests during fiscal year 2006. One property was damaged during fire suppression on the Armuchee District. The fire suppression activi-

ties were unplanned and carried out by a state agency. A damage assessment was conducted by Forest Service archaeologists. Damage to the property was minimal and did not require rehabilitation.

The second historic property was impacted during timber management operations. The property was located near, but not within the project area. The damage appears to be moderate and will require documentation and full assessment.

Less than five percent of all ground disturbing activities during fiscal year 2006 were monitored after project completion. Two monitoring reports were prepared for completed projects on the Oconee Ranger District. Mitigation measures were effective in protecting historic properties located within both project areas.

15. Are watersheds maintained (and where necessary restored) to provide resilient and stable conditions to support the quality and quantity of water necessary to protect ecological functions and support intended beneficial uses?

This Forest Plan provides for management of watersheds to provide resilient and stable conditions to support the quality and quantity of water necessary to protect ecological functions and support intended beneficial water uses. Numerous best management practices are established as standards for practices to be carrying out during implementation of the Forest Plan. Watershed condition, improvement needs, water quality, and implementation of best management practices will be monitored.

Armuchee-Cohutta Ranger District

Jacks River Bridge Replacement & Ford Project – replacement of existing bridge over Jacks River by Fannin County, construction of temporary ford and access road on NF lands downstream. Location: Jones settlement, east of Cohutta Wilderness on main channel of Jacks River.

Temporary ford crossing of Jacks River on NF land located downstream of bridge replacement project. Ford constructed at site to use low stream banks and short distance across the channel. Temporary road on west side outside of riparian corridor. Temporary facilities to be restored & revegetated at end of use. Project actions comply with Forest Plan standards.

East Armuchee Creek FS Road 226 Stream Crossing – permanent stream crossing on East Armuchee Creek. – Location: FS Road 226 NE of Sublinga. Existing native cobble and gravel ford reinforced with concrete “mattress” structure to stabilize and armor crossing. Structure reduces maintenance needs and disturbance when vehicles cross. Project actions comply with Plan standards.

Brasstown-Toccoa Ranger Districts

Lake Chatuge Rec Area Decommission – closure and revegetation of developed rec area. Location – Lake Chatuge Developed Rec Area, GA Hiway 288, east of Young Harris. Existing rec area camp site roads, tent pads, walls, restroom sites removed from area. Disturbed soils shaped for drainage and revegetated with grasses & legumes. Ground cover achieved within 30 days of planting to acceptable cover. Project actions comply with Plan standards. Site visits in February, March & July 2006.

Waters Creek Rec Area Decommission – closure and revegetation of developed rec area. Location – FS Road 34 west of Turners Corner on Dicks Creek, tributary of Chestatee River; site located in riparian corridor. Existing rec area camp site roads, tent pads, restroom sites removed from area. Disturbed soils revegetated with grasses & legumes. Ground cover achieved within 30 days of planting to acceptable cover. Project actions comply with Plan standards. Site visits in February, March & July 2006.

Hiway 75 Fuel Spill Site Restoration – cleanup & restoration of site of petroleum tank truck fuel spill. Location – GA Hiway 75, north of Unicoi Gap on east side of highway. Spill occurred in April 2005. Initial clean-up began on day of spill with removal of contaminated soils, installation of catch basins to slow product flow downstream, and pumping of spilled product from Hiwassee River crossing downstream. Contractors have monitored site with wells on-site since initial spill, and continue to remove small amounts of product from catch basins. Monitoring well data shows amounts of products in ground water & surface water to be within EPA limits. Anticipate final cleanup and restoration of access road into site in spring 2007. Project actions comply with Plan Standards. Site visit in May 2006.

Met with Lee Keefer and Leon Brotherton of Georgia DNR this morning to do an electrofishing sample in the Hiwassee River. We planned to start our sample in the just down stream of Underflow Dam #2 (UD-2). However, the river was dry at that point and it was about 1000 feet downstream before we encountered any water in the stream channel. We started sampling there, and worked our way down stream for approximately 2000 feet. We found relatively large numbers of young-of-the year rainbow trout, and smaller numbers of adult rainbow trout and mottled sculpins. The numbers of young-of-the year indicate good rainbow trout reproduction in the stream. Interestingly, we did not see any salamanders or crayfish during the sampling. They were present prior to the spill. We by no means did a complete evaluation for salamander presence since we were primarily looking at fish populations, but we generally do encounter them during electrofishing surveys.

We did notice a slight sheen and odor in some of the pools after we walked through them, apparently stirred up from the sediment in the pools. It was most apparent in the upper section and seemed to be less so as we worked our way down stream.

Rocky Top Timber Sale – thinning of loblolly pine stand for forest health. Location – Unit 2, FS Road 724, Hunter Knob area, north of Young Harris, logger – Bryant Log-

ging. Sale logged in fall 2005. Access roads in place from previous regeneration harvest. One stream crossing on main skid road – culvert in place. Riparian corridor harvested on this unit per prescription – reduce pine basal area and favor residual hardwoods. Site visit in December 2005 with sale administrator and S.O. sales forester identified skid trails with compaction & ruts – corrected by sale administrator. Unit completed in January 2006. Evaluated revegetation & drainage on skid roads in June 2006, ground cover unacceptable to Plan standards. Corrected by District to increase ground cover and comply with Plan.

Weaver Creek Timber Sale – thinning of loblolly pine stand for forest health. Location Toccoa RD southeast of Blue Ridge on Weaver Creek Road. Sale logged in May-June 2006. Access roads in place from previous sale and existing county road. Two stream crossings on existing county road used by logger required placement of temporary stream crossing structures; steel plates spanned channel with gravel on both approaches. Plates removed after sale ended. No harvesting in riparian corridor and no entries noted by equipment from logging of adjacent areas. Unit completed in June 2006. Site visit in June 2006 with sale administrator. Project actions comply with Plan standards.

Low Creek Road – Special Use Request by Union County to widen existing road and install waterline. Location – west of Blairsville, north of GA 515, east of GA 325 on Low Creek (near Davenport Mountain tract). County has submitted request to widen and upgrade existing gravel road with sections crossing NF lands. No perennial stream crossings occur along the segments proposed for improvement, but there are small intermittent streams and one spring area below the road. Site visit in September 2006 with District staff. Proposed actions are in compliance with standards, follow-up monitoring will be needed.

Chattooga-Tallulah Ranger Districts

Trail Ridge Timber Sale – thinning for early successional habitat. Location – Upper Chattahoochee River, FS Road 52B, Jasus Creek watershed. Timber harvest operation, Logger – Bryant Logging. Sale conducted February-May 2006. Used existing system road for access to two payment units. No riparian corridors in sale area or stream crossings. Skid trails constructed into unit – comply with GA BMPs. Project actions comply with Plan standards. Follow-up monitoring will be needed to evaluate post-sale conditions.

Hiway 76 Bridge Replacement – highway bridge over Chattooga River being replaced by GA & SC DOTs. Location – US Highway east of Clayton at South Carolina state line. New structure is being constructed adjacent to existing structure. Best management practices have been in place from beginning of the project for erosion & sediment control. Project actions are under control of the State DOTs, however they are in compliance with Plan standards as included in the project design. Site visit March 2006 – early in the project.

Lake Rabun Fire – wildfire. Location – west of US 441, SW of Clayton in vicinity of Oakey Mountain north of Lake Rabun. Wildfire occurred in April 2006, hand and dozer control lines both used in suppression. Follow-up visit after fire control, evaluated sections of fire line and representative burned areas. No problems noted with control lines. Fire severity within tolerable limits – no follow-up treatments recommended. Site visit in April 2006.

Flat Branch Timber Sale – proposed thinning for early successional habitat. Location – Forest Service 54A, Flat Branch, tributary to Coleman River. Payment unit includes harvest in riparian corridor of Flat Branch. Layout coordinated with S.O. staff specialists to comply with GA BMPs and Forest Plan. Follow-up monitoring needed. Site Visits October 2006, April 2006.

Oconee Ranger District

Falling Creek Timber Sale – thinning of loblolly pine stand for forest health. Location – compartment on Hitchiti Experimental Forest. Harvested in July-September 2005. Problem with logging in wet conditions noted in August 2005 – compaction and ruts on skid trails, improper crossing of perennial stream. Evaluated by Georgia Forestry Commission for BMP compliance – passed overall but failed section on stream crossings. Logger directed to implement corrective actions. Follow-up monitoring visit in December 2005 – compliance with GA BMPs and Plan standards.

16. What are the conditions and trends of riparian areas, wetlands, and floodplain functions and values?

Riparian ecosystems restoration and management is important to maintain aquatic resources and values. Desired conditions, including the composition and structure of vegetation, equipment limitations, maintaining ground cover and stable stream-banks are established in the Forest Plan. Floodplains and wetlands are to be protected. Riparian management practices and standards, ground cover, stream-bank stability, wetland and floodplain status will be monitored.

Armuchee-Cohutta District

Riparian Corridor Management & Recreation - discussion on proposed treatments and management within riparian corridor on Cohutta portion of District. Location - Dodd tract on Holly Creek (FS Road 18) and Bear Creek Recreation Area (FS Road 241).

Dodd Tract acquired by Forest in 2005 land acquisition, portion of tract adjoins main channel of Holly Creek with access to year-round county road. Tract conditions included open user created roads, stream banks with erosion & loss of vegetation. District project implemented in FY 06 to close roads on

tract and restore streambanks with bioengineering treatments; proposal complies with Forest Plan direction.

Bear Creek Recreation Area - isolated dispersed recreation area at end of FS Road 241. District proposal to identify available dispersed recreation zone with signing to denote riparian corridor, off-limits to overnight camping. S.O. staff visited site with District staff to discuss Forest Plan direction and identify areas suitable for camping designations. Proposal in compliance with Forest Plan direction.

USN Crash Site Restoration Project – site of USN crash, site rehab and restoration. Location: north of Pocket Rec. Area, located in riparian area, tributary to Johns Creek.

Site restoration required excavation of about one-half acre with restoration accomplished by creating small pond and revegetating to grass and legumes. Access roads for site clean-up used existing temporary use road – used to haul excavated material from site to off-Forest disposal area. Road closure and restoration required drainage and revegetation. Project actions comply with Forest Plan standards.

LITTLE CREEK WETLAND ENHANCEMENT on the Tallulah

Using partnership labor from the U.S. Probation Office in Atlanta along with a contract with an operator using a “Superhoe,” ten (10) small pits were constructed in the former pond bed to enhance this high elevation opening. These pits will improve the wildlife and fish habitat by providing needed habitat for amphibians (frogs and salamanders), reptiles (including the Forest Sensitive bog turtle), and fish (rainbow trout).

Land Exchanges

Three reports (Poss, Phillips, Dunn) were completed in 2006 related to wetland and floodplains involved in proposed land exchanges. Combined the three proposed exchanges resulted in a net gain of 100 year floodplains of 7.5 acres, all on streams in the Chattahoochee portion of the Forests. Wetlands involved in the exchanges resulted in a net gain of 2 acres, also in the Blue Ridge mountains portion of the Forests. These proposed land exchanges are in compliance with Executive Orders 11988 and 11990, and the Forest Plan standards.

17. How do actual outputs and services compare with projected? [36 CFR 219.12(k)1]

The 1982 NFMA implementing regulations require that outputs and services will be monitored and compared to those projected in the Forest Plan. Trends in forest

product, mineral leasing and surface rights, access and road conditions, and Forest Plan implementation costs will be tracked and compared to projections made at the time the Forest Plan was developed.

Element: Adequacy of constructed roads for the planned uses and revegetation following the completion of use. [36 CFR 219.27 a (10), 36 CFR 219.27 b (7)]

The Chattahoochee-Oconee National Forests implement FSM 7703.1 and 7712.1 which requires that Roads Analysis be completed for road management decisions made after January 2001. The Forests have performed Road Analysis during Fiscal Year 2005 on the following: lands which it has acquired during the fiscal year; special use permits to individuals in which the permit affects the forest road system; decommissioning of roads on national forest system lands, both system roads and non-system roads. The soil that is disturbed during road decommissioning and road construction, have been seeded with native grasses.

Element: Adequacy of designated transportation and utility corridors.

There are several projects located on the Forest which involve special use permits and right of ways. These projects include replacing two state highway bridges, and replacing of culverts and bridges on county roads. The Forests' resource specialists and engineering personnel have been involved in the review of these projects and development of permit stipulations and designs acceptable to all parties concerned.

120 miles of condition surveys were completed (on forest roads). This included maintenance levels 2 through 5. There were 656 miles of road maintenance or about 45% of our total road system!

Rich Mountain Road

The reconstruction is working as planned. All dips are working, no standing water, the vegetation cover is great on all banks and fills. In the Quarry side only hikers have used the closed road. No sign of illegal use on entire road.

Black Mountain Road

There are no atv's or ohv's using this road any longer. Hunters use the road as a trail. Closure was breached by Georgia Power to access their power line. They did re-close, re-seed and re-block everything they opened and unearthed. Overall, closure is holding up as planned.

18. Are silvicultural requirements of the Forest Plan being met?

The 1982 NFMA implementing regulations also require monitoring of specific silvicultural requirements. Silvicultural practices, harvest methods, harvest unit size, regeneration establishment, and land suitability for timber productions will be monitored and evaluated to determine if and when changes may be needed.

FY06 saw the advent of FACTS (Forest Activity Tracking System), the Forest Service corporate database, for accomplishment reporting. The FACTS program links the NEPA decision to those projects and activities that implement it, ensuring that ties are systematically maintained all the way through. The FACTS program also links treated areas with their Plan Management Prescription. Silvicultural prescription preparation is an activity in FACTS also. In total, the FACTS program provides a tightly-woven whole for tracking projects from beginning to end.

Reforestation

The First Year Survival report for seedlings planted in FY05 and the Third Year Stocking report for seedlings planted in FY03 show that we had no stands in either case that would fail to meet Plan re-stocking standards for at least one corresponding forest type and Forest Plan objective, even though survival in some planted stands was inadequate to meet the objective initially chosen. The planting program is being negatively affected by consolidations and its small size that prevents us from having economies of scale.

Harvest unit sizes

The Plan constrains unit sizes only for “*regeneration harvests*” and then only on “*lands classified as suitable for timber production*”. Where these applied, FACTS reports show that timber harvest unit sizes in FY06 did not exceed the 40-acre Plan limitation.

Harvest methods

Our Forest Plan does not preclude the use of any harvest method so this is not an issue. Most of the harvesting to date has been thinning. The Central Zone of the Chattahoochee (Brasstown and Toccoa Districts) reported 171 acres of ‘wildlife habitat non-structural improvement’ that is inclusive of early-successional forest habitat and canopy gap creation. In FY06 the Oconee reported 650 acres of thinning, all in pine cover types, and 86 acres in the Concord Salvage, a blowdown caused by a spin-off storm from Hurricane Katrina.

Silvicultural systems and land suitability

There remain challenges in terms of silvicultural systems and land suitability for timber harvest in relation to what NFMA envisioned.

Regarding suitability, our Plan has no timber production objective. Timber is produced as a by-product of meeting other resource objectives. Some management prescriptions and objectives provide a framework with enough regular, periodic need for activity that a sustained yield timber production paradigm can be matched with them. Other management prescriptions do not. Rather they can be expected to have episodic timber production that will not be completely predictable in amount, type, distribution, etc.

Regarding silvicultural systems, some of our objectives; such as woodland creation or canopy gap creation, are about wildlife habitat structural and vegetation composition characteristics and not about regenerating a forest cover.

Traditional silvicultural terms and concepts do not apply well to these. Fortunately FACTS allows the user to choose either a 'wildlife habitat intermediate cut' code or a 'wildlife habitat regeneration cut' code. In the latter case, reforestation under NFMA is not required.

19. Are Forest Plan objectives and standards being applied and accomplishing their intended purpose?

Periodic review of objectives and standards established in the Forest Plan is called for to assure that desired conditions are being achieved and that these requirements will stay current given Forest Plan modifications, changed conditions and new information that accumulate over time. Implementation and effectiveness of best management practices and other standards will be tracked and periodically evaluated

Yes. The one area being looked into is horse use throughout the forest. Whether to keep horse use to designated trail systems or to continue to allow riding off trail, anywhere on the forest.

Are landscape- and stand-level composition, structure, and function of major forest communities within desirable ranges of variability?

This area of the Forest Plan is having the slowest level of implementation. The forests are working with their constituents to have collaborative projects that achieve these forest plan goals and objectives.

RESEARCH

Forest Monitoring Studies and Research

The Forests have numerous on-going projects either designed specifically to give answers to monitoring questions or which provide monitoring data as part of wider objectives. Most, if not all are multiyear research projects and thus results are not available at this time.

Hemlock Woolly Adelgid research is on-going. A new laboratory on the UGA campus is being established.

RESPONSE/FEEDBACK

Attached is a form you can use to give us your thoughts or comments on this report or on the subject of Forest Plan monitoring in general. Your comments can help us to do a better job. Send to: *Forest Supervisor, 1755 Cleveland Highway, Gainesville, GA 30501*. To reach us, you may call telephone number 770/297-3000.

Please visit our web site at: <http://www.fs.fed.us/conf> for further information and forest news.

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