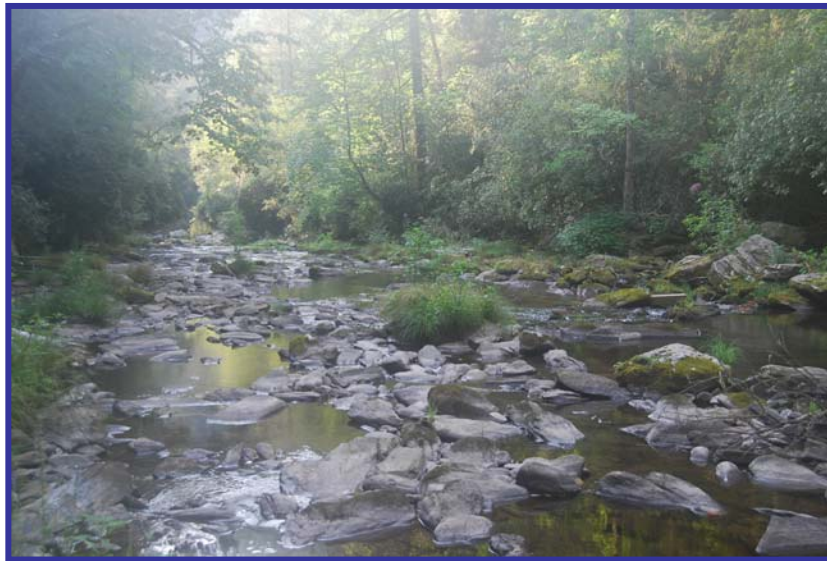




National Forests in North Carolina

FY 2007 Monitoring and Evaluation Report

Nantahala * Pisgah * Uwharrie * Croatan



Upper Chattooga Wild and Scenic River
Nantahala National Forest



Forest Supervisor's Office
160A Zillicoa Street
Asheville, North Carolina 28801
(828) 257-4200

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PREFACE

Forest plan monitoring and evaluation reports are essential elements for maintaining valid and effective Land Management Plans. Nantahala and Pisgah National Forests operate under a plan signed in 1987 and significantly amended (Amendment 5) in 1994. Revision of this plan will begin no earlier than FY 2010. The original plan for the Uwharrie National Forest was signed in 1986. Plan revision is currently underway. A revised Croatan National Forest plan went into effect in FY 2003. The various plans are available online at

<http://www.cs.unca.edu/nfsnc/nepa/nepa.htm>.

The Annual Monitoring and Evaluation Report for FY 2007 is organized into broad resource topic areas. A summary of the historical context for management of the four Forests is available online at

<http://www.cs.unca.edu/nfsnc/me2003/nfsnchistory.pdf>.



KEY FINDINGS AND CERTIFICATION

- The upward trend in timber sale volume continued into FY 2007, with more volume from thinnings than what was anticipated in the Forest Plans.
- Early successional habitat (ESH) on the Nantahala and Pisgah National Forests continues to average approximately 25% of the desired amount set in the Forest Plan.
- Defoliation and mortality of hemlocks from hemlock woolly adelgid is progressing at a rapid pace, though Carolina hemlocks appear somewhat less affected than eastern hemlocks.
- In FY 2007 new populations of 18 sensitive plant species were observed as well as 14 new populations of species of concern. A new occurrence of the Endangered rock gnome lichen was located in the upper Chattooga Wild and Scenic River corridor which represents its southernmost known occurrence.
- In FY 2007 the Forests constructed four new road bridges, as well as 1.7 miles of new road. No road obliteration occurred.

Forest Supervisor's Certification

I have evaluated the monitoring results and I have directed that the Action Plan be implemented according to the time frames indicated, unless new information or changed resource conditions warrant otherwise. I have considered funding requirements in the budget necessary to implement these actions.

During FY 2008, the Plan for Nantahala and Pisgah National Forests and the revised Croatan National Forest Plan were sufficient to guide forest management on those Forests. For the Uwharrie National Forest, plan revision was underway until April of 2007, then on hold for the remainder of that year and into 2008.

Any amendments or revisions to the Forest Plans will be made using the appropriate National Environmental Policy Act (NEPA) procedures.

/s/ Marisue Hilliard

November 3, 2008

Forest Supervisor

Date

FY 2007 Monitoring Results

Goal or Desired Condition: A wide variety of recreational opportunities are provided with increased opportunities for non-motorized recreation. Activities, facilities, and programs are accessible to the extent possible.

National Visitor Use Monitoring Results: The 1.25 million acre National Forests in North Carolina (NFsNC) have the second highest number of visitors of all national forests in the country! The only national forest with more annual visitors was the 2.3 million acre White River National Forest in Colorado, home to hugely popular ski resorts such as Aspen and Vail. Visits to NFsNC were more than twice as high as any other national forest in the southern region – an area from Texas through Virginia. Given that the population of North Carolina is growing at a rate that is 50% higher than the nation as a whole, and most surrounding states are also growing faster than average, very high recreation use is expected to continue. For complete visitor use figures go to <http://www.fs.fed.us/recreation/programs/nvum>. The National Visitor Use Monitoring (NVUM) Survey began in 2007 across the National Forests in North Carolina. This process is conducted on an approximately every 4-5 years. The surveys are being conducted under cooperative agreements with the University of Tennessee and East Carolina University and surveys will be completed by September 30, 2008. A random sampling technique is used to derive statistically valid use figures. The surveys will be tabulated in the fall of 2008 and updated use figures will be available on-line by early 2009.

Monitoring Item	Results
To what extent are management activities appropriate for moving areas of the Forest toward the desired conditions for recreation?	<p>Croatan: The 26-mile Neusiok Trail was officially designated as a National Recreation Trail becoming a section of the Mountains to the Sea Trail being constructed and linked across the entire State of North Carolina. Continued improvements, such as bank stabilization adjacent to recreation sites along the Neuse River are very appropriate to retaining desired conditions at these sites and preserving significant capital investments well into the future.</p> <p>Uwharrie: Recent development of Kings Mountain Point Day Use Area allowed the relocation of a major picnic area adjacent to a highly used boat launch to Kings Mountain Point, thereby removing picnickers from the water near the launch site and creating a safe, desirable recreation experience for the public.</p> <p>Nantahala/Pisgah: 145 miles of The Mountains to Sea Trail was officially designated</p>

Monitoring Item	Results
	<p>as a National Recreation Trail on the Nantahala and Pisgah National Forests, highlighting its importance to North Carolina and the Nation. Numerous trail bridges have been replaced and trails have been reconstructed or relocated out of unfavorable locations in recent years to significantly improve the recreational condition on these forests. This work continues as funds and volunteers become available.</p>
<p>To what extent has accessibility improved?</p>	<p>Croatan: All new construction or reconstruction complies with current accessibility standards to the extent possible. Recently completed examples include: three beach access sites along the Neuse River were stabilized to prevent further serious erosion to the adjacent 10 to 25 foot banks and recreation sites. These sites were not previously accessible. After reconstruction, all three sites now have accessible concrete pathways between the main recreation site and the beach.</p> <p>Uwharrie: All new construction or reconstruction complies with current accessibility standards to the extent possible. Recently completed examples include: Kings Mountain Point Day Use Area, all aspects of the site have been made accessible including parking, three toilets, picnic shelter, numerous picnic sites, trash receptacles, water hydrants, perimeter access path and four fishing piers.</p> <p>N/P: All new construction or reconstruction complies with current accessibility standards to the extent possible. Recently completed examples include: Sycamore Flats Picnic Area, two new toilets, several picnic sites, trash receptacles and streamside path are accessible. At Cheoah Point Campground, the toilets, six campsites, a camping cabin, trash receptacles and hydrants are accessible. Three new accessible toilets are in place at Jackrabbit Campground. A new addition to Curtis Creek Campground is completely accessible including toilets, four campsites (including three walk-in sites), information board, water hydrants and trash receptacles.</p>
<p>Are Visual Quality Objectives being met? Is the scenery being maintained or enhanced?</p>	<p>N/P: In 2007 potential scenery impacts were analyzed for proposed land exchanges, utility corridors, and vegetation management projects across the Nantahala and Pisgah National Forests. Each proposal was designed or modified to meet visual quality objectives assigned through the Land and Resource Management Plan. Some of these</p>

Monitoring Item	Results
	projects occurred in visually sensitive areas, others did not. Though some of the activities proposed or implemented in visually sensitive areas may not result in "a more continuous" canopy, they were designed to be "natural-appearing" with a goal of meeting the assigned visual quality objective.

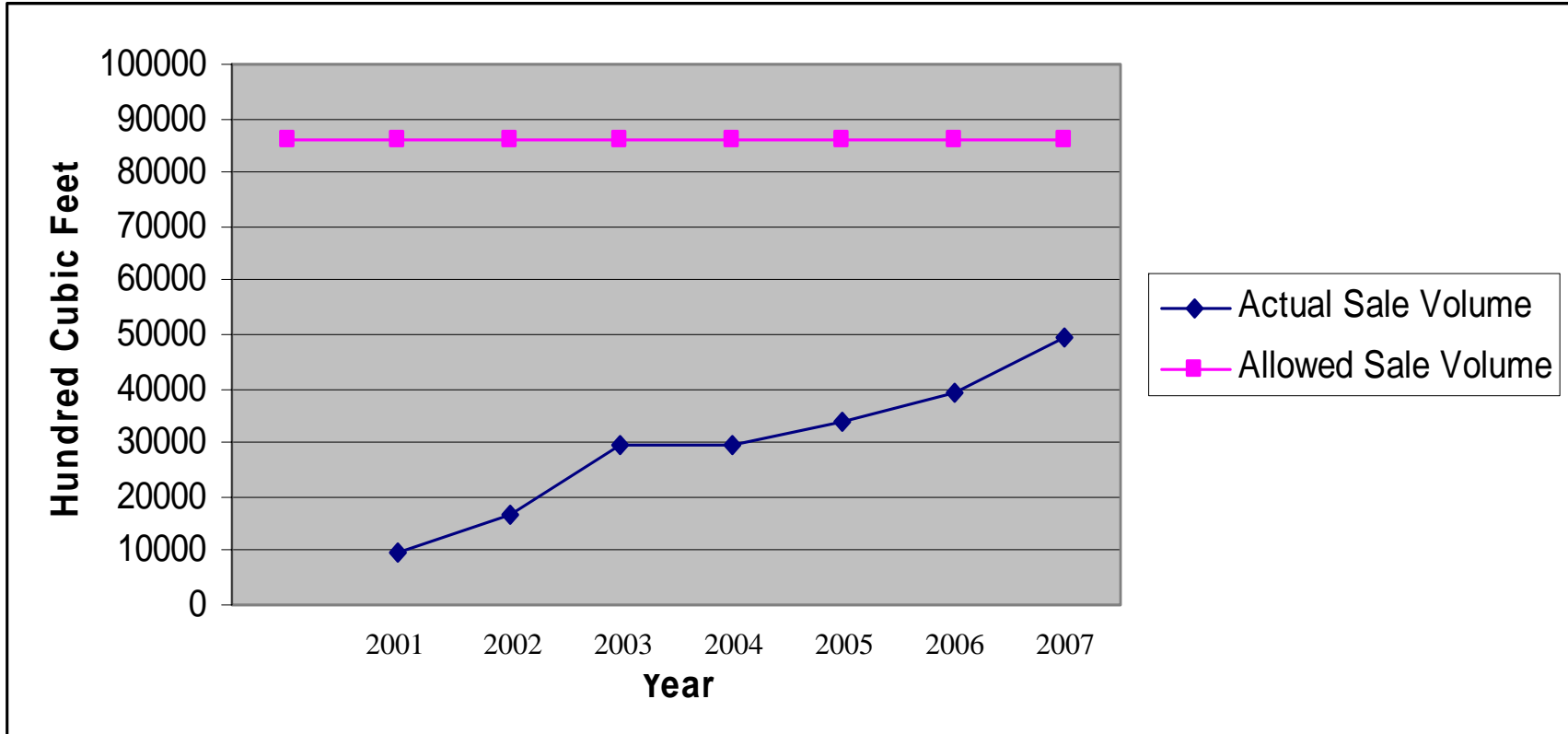
Goal or Desired Condition: A variety of silvicultural treatments are used to provide a continuous supply of wood products, with emphasis on high quality hardwoods (Nantahala/Pisgah).

Monitoring Item	Results																								
Southern Pine Beetle Restoration & Prevention FY 2007	Reforestation: Site Prep. for Planting = 0 acres Planting & Nat. Regen. = 204 acres TSI: Release of Planted Seedlings = 435 acres SPB Prevention: Precom. Thinning = 470 acres																								
Timber Stand Improvements (TSI), FY 2007	TOTAL for FY 2007 = 2,679 acres PLANS PROJECTED = 2,487 acres																								
Acres Harvested in FY 2007 by Method, and Plan Projected Harvest	<table border="1" data-bbox="583 1101 1749 1401"> <thead> <tr> <th colspan="3" data-bbox="583 1101 1749 1138">ALL NFsNC FORESTS</th> </tr> <tr> <th data-bbox="583 1138 968 1175">Method</th> <th data-bbox="968 1138 1430 1175">FY 2007 Harvested Acres</th> <th data-bbox="1430 1138 1749 1175">Plan Projections</th> </tr> </thead> <tbody> <tr> <td data-bbox="583 1175 968 1213">Even-Aged/ Two-Aged</td> <td data-bbox="968 1175 1430 1213">617</td> <td data-bbox="1430 1175 1749 1213">2,767</td> </tr> <tr> <td data-bbox="583 1213 968 1250">Uneven-Aged</td> <td data-bbox="968 1213 1430 1250">123</td> <td data-bbox="1430 1213 1749 1250">500</td> </tr> <tr> <td data-bbox="583 1250 968 1287">Thinning</td> <td data-bbox="968 1250 1430 1287">1,476</td> <td data-bbox="1430 1250 1749 1287">560</td> </tr> <tr> <td data-bbox="583 1287 968 1325">Salvage</td> <td data-bbox="968 1287 1430 1325">0</td> <td data-bbox="1430 1287 1749 1325">-</td> </tr> <tr> <td data-bbox="583 1325 968 1362">Shelterwood Removal</td> <td data-bbox="968 1325 1430 1362">56</td> <td data-bbox="1430 1325 1749 1362">-</td> </tr> <tr> <td data-bbox="583 1362 968 1401">TOTAL</td> <td data-bbox="968 1362 1430 1401">2,272</td> <td data-bbox="1430 1362 1749 1401">3,827</td> </tr> </tbody> </table>	ALL NFsNC FORESTS			Method	FY 2007 Harvested Acres	Plan Projections	Even-Aged/ Two-Aged	617	2,767	Uneven-Aged	123	500	Thinning	1,476	560	Salvage	0	-	Shelterwood Removal	56	-	TOTAL	2,272	3,827
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Monitoring Item	Results			
Timber Sale Volume	Allowable Sale Quantity (ASQ)	Volume Offered 2007	Volume Sold 2007	Volume Harvested 2007
	TOTAL = 43 MMBF/Year	57,049 ccf or 28.5 mmbf	49,214 ccf or 24.6 mmbf	43,465 ccf or 21.7 mmbf
CCF = hundred cubic feet MMBF = million board feet				

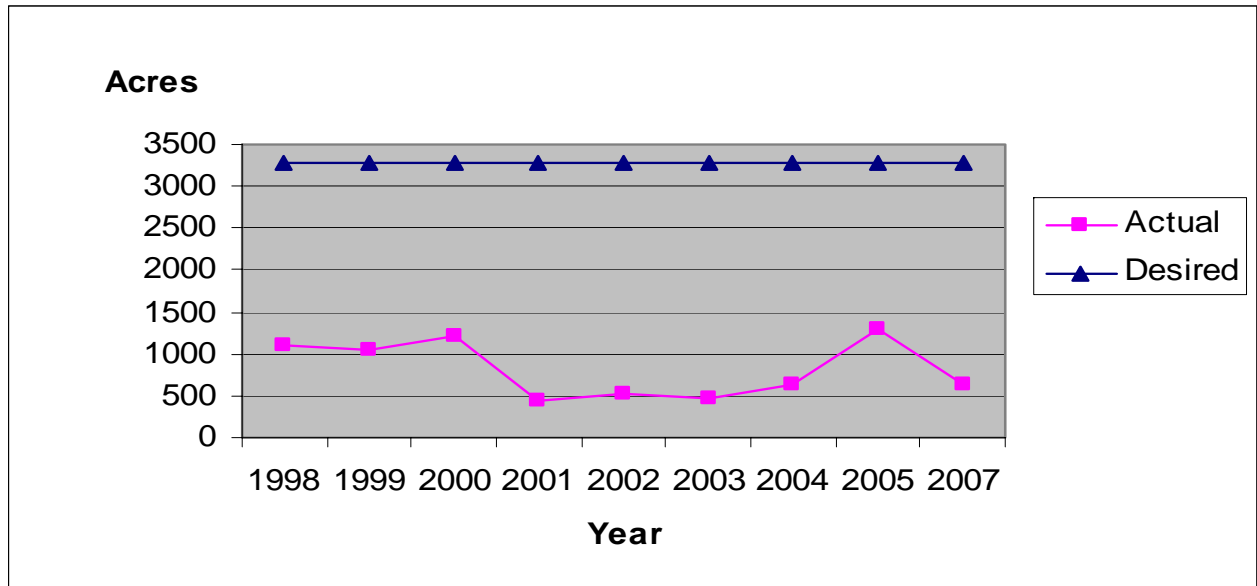
FOREST	VOLUME OFFERED 2007 (CCF)	VOLUME SOLD 2007 (CCF)	VOLUME HARVESTED 2007 (CCF)
CROATAN	9,407	5,935	6,978
UWHARRIE	8,991	8,991	6,399
NANTAHALA/PISGAH	38,651	34,288	30,088
TOTAL	57,049	49,214	43,465

Timber Sale Volume Still on Upward Trend



Goal or Desired Condition: Maintain, and where possible, enhance the diversity of plant and animal communities.

Trends in Early Successional Habitat



While timber harvest volume is on an upward trend this is not reflected in the creation of early successional habitat since a higher portion of volume is coming from thinnings and less from regeneration harvests than what was anticipated in the plans.

Restoring Native Diversity	<u>Non-native Invasive Plants:</u> Five mountain ranger districts implemented control projects to reduce the impacts from non-native invasive plant species. Specific control projects across 89 acres addressed outbreaks of oriental bittersweet, princess tree, kudzu, privet, Chinese silver grass, autumn olive, Japanese stilt grass, and coltsfoot. The third year of an ongoing volunteer cooperative monitoring and control project was implemented on a portion of the Appalachian Ranger District.
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**SPECIAL REPORT: Status of Hemlock Woolly Adelgid Infestation In the Southern Appalachians
June, 2007 James D. Brown - Southern Region FHM Program Coordinator**

Georgia: Adelgids can be found in most stands east of a line running roughly from Clarksville (Habersham County) through Murphy, NC. Defoliation is light or not visible in southern portions of this area, but is moderate to severe in northern and eastern Rabun County and northern Towns County. Patchy infestations also exist in White, Lumpkin, Union, Fannin, Gilmer and Murray Counties, but defoliation is not yet generally visible and pockets of uninfested hemlocks are still common.

Kentucky: Not surveyed; state reports indicate adelgids spreading northward out of Tennessee, but defoliation has not yet become widespread.

North Carolina: All western counties with hemlock populations are now infested, although defoliation was not observed in all areas and many stands in western Cherokee County are not yet infested. In general, defoliation is most severe in northeastern counties within hemlock range, but it is locally severe all along the eastern escarpment of the Appalachians, becoming less severe moving northwest. Many of the old-growth hemlock "character trees" along the Blue Ridge Parkway are now dead or dying and overlooks near Mt. Mitchell show extensive areas of severe defoliation or mortality.

South Carolina: Most stands in Oconee and Pickens Counties are heavily infested and show moderate to severe defoliation. Extensive mortality is visible in the upper Chattooga River valley.

Tennessee: Adelgids can be found in most stands in Monroe, Blount, Sevier, Cocke, Greene, Washington, Sullivan, Carter, and Johnson Counties. Defoliation in most areas is not yet severe, with the exception of the GSMNP, where entire mountainsides visible from US 441 appear totally defoliated. (This may be the result of a combination of effects from

adelgid attack and protracted drought.) Other counties in northeastern Tennessee are probably infested, but hemlocks are more scattered in most areas and damage is not readily visible.

Virginia: Eastern Washington County and Grayson, Smythe, Bland, and Wythe Counties are generally infested, with varying degrees of defoliation generally becoming more severe moving north- and eastward. Northeast of Wytheville, few live hemlocks can be found except in treated areas.

Species responses: In almost all areas, some hemlocks of both species can be found with little or no evidence of defoliation. In most cases, this is probably the result of random initiation of infestation, but in some heavily infested areas, e.g. Standing Indian campground in NC, apparently healthy trees are immediately adjacent to ones that are severely defoliated. This may be an indication of adelgid tolerance or resistance in some hemlock genotypes. In general, Eastern hemlock appears to be more susceptible to injury than Carolina hemlock, the former often displaying almost total defoliation while adjacent specimens of the latter appeared healthy. In some instances, Carolina hemlocks that displayed heavy adelgid infestation and/or defoliation of second- and third-year needle flushes had produced new flushes of first-year needles that were uninfested and apparently healthy; in other instances, no infested foliage had been lost. Not all Carolina hemlocks displayed this characteristic; some were as vulnerable as Eastern hemlock. In both species, these apparently tolerant individuals should be sought out and studied for possible breeding and cultivation of adelgid-tolerant genotypes.

Elevation response: In areas where the adelgids have been established for less than five years, visible damage was generally less severe at lower elevations than at higher elevations. This may be the result of increased use of high elevation hemlock forests by the neotropical migrant birds that vector the adelgid (and thus earlier and more widespread infestation), or it may be the result of longer activity periods by the adelgids in the cooler climate produced by increasing elevation.

A detailed listing of observations by site is available on request.

Goal or Desired Condition: Maintain viable populations of existing native wildlife, fish, and plants. Threatened and endangered plant and animal species are protected, managed or recovered consistent with the Endangered Species Act; and sensitive species are conserved.

<p>Status of Threatened and Endangered Species</p>	<p>There were 31 Threatened or Endangered species that occur or may occur on the National Forests in North Carolina at the end of FY 2007. Seventeen of the 31 potential species have documented populations within the National Forests in North Carolina.</p> <p><u>Activities in FY 2007:</u></p> <p>Red-cockaded Woodpecker: Nest checks, banding young, fledge checks, population census: 96 nestlings banded (down from 107 in 2005), 62 fledglings, 131 adults observed.</p> <p>Rough-leaved Loosestrife: A census of seven subpopulations of Rough-leaved Loosestrife was completed in 2007 with personnel from the NC Natural Heritage Program, NC Plant Protection Program and the US Fish & Wildlife Service (USFWS). Three of the subpopulations were part of a long-term monitoring study completed across rough-leaved loosestrife's range. Trends of ramet numbers within these three subpopulations indicates two have increased since the last monitoring completed in 2004 while the other is relatively stable. Two of the remaining four subpopulations without long term plots had higher ramet numbers than previously recorded while the other two subpopulations had lower ramet counts.</p> <p>Spreading Avens: All the forest populations are known from Roan Mountain. Three of these had continuing demographic sampling during 2007. Additional rappelling to gather a more complete census for each site resulted in documentation of increases in two populations. The remaining population has remained stable for the three-year intensive sampling period.</p> <p>Virginia Spiraea: A field assessment of nonnative invasive species affecting subpopulations</p>
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	<p>of Virginia Spiraea was completed along a 6-mile stretch of the Cheoah River. Four new subpopulations of Virginia Spiraea were located during the survey. Eight nonnative invasive species were identified as impacting one of the 12 documented subpopulations of Virginia Spiraea along the Cheoah River. Cover data was measured along permanent line intercept transects within one of the subpopulations.</p> <p>Small Whorled Pogonia: No individuals were found in two previously occupied sites. The canopy over one population site was thinned to stimulate seed germination or sprouting of any dormant plants.</p> <p>Rock Gnome Lichen: A field assessment to more consistently evaluate this species' abundance across sites was completed with USFWS, National Park Service, and US Forest Service personnel. Three separate sites on the Pisgah NF and a site on the Blue Ridge Parkway were visited and evaluated. Two of the sites on USFS lands been known for more than 15 years, however population trends are unknown. Data will be collected in 2008 regarding the abundance of this species as part of a 5 year review by the USFWS.</p> <p>Mountain Bluet: A new monitoring design was established for two Roan Mountain subpopulations and will be re-evaluated for effectiveness in 2008.</p> <p>Mountain Golden Heather: Approximately 60% of the large subpopulation on Shortoff Mountain was affected by a natural wildfire in July. All 212 photoplots were visited and assessed as to the local fire intensity and severity. A complete census within the Shortoff Mountain will be completed in 2008 and the impacts of fire will be evaluated.</p>
Sensitive Species Monitoring	<p>New populations of the following sensitive plant species were located in 2007: Small Spreading Pogonia, Carolina Loosestrife, Carolina Asphodel, Savanna Cowbane, Venus Flytrap, Large Witch Alder, Glade Spurge, Waterfan, Gorge Filmy Fern, Southern Nodding Trillium, Appalachian Violet, Small's Penstemon, Megaceros aenigmaticus, Fraser's Loosestrife, Butternut, Mountain Heartleaf, Broadleaf Coreopsis, and Acrobolus ciliatus.</p>

	<p>Monitoring of previously documented populations was conducted within 8 populations for the following species: Spring-flowering goldenrod, Venus flytrap, Piedmont Indigo Bush, Fraser's Loosestrife, Appalachian Violet, and Bent Avens. All the populations were extant however since exact population counts were not previously documented it is difficult to determine whether the populations are stable or had more individuals than previously counted or estimated.</p>
<p>Forest Concern Species Monitoring</p>	<p>New populations were located for the following forest-concern species: Savanna Milkweed, Shadow-witch, Smooth Sunflower, Huger's Carrion-flower, Appalachian Golden-banner, Longstalk Starwort, Rock Fir Clubmoss, Biltmore Sedge, Red Raspberry, Goldenseal, Wood's Sedge, Blue Ridge Bindweed, Senega Snakeroot and Columbo.</p> <p>Monitoring of previously documented populations was conducted within 15 populations for the following species: Comfortroot, Savanna Milkweed, Shadow-witch, Thin-pod White Wild Indigo, Glade Wild Quinine, Greenland Sandwort, Appalachian Fir Clubmoss, and Largeleaf Waterleaf. Two of the populations have had stable sizes for the past 3 years. The remainder of the populations were extant however since exact population counts were not previously documented it is difficult to determine the individual population trends.</p>
<p>Botanical Products</p>	<p>The three most heavily collected products include Galax, ginseng, and ramps. Ramps remain stable with only slight fluctuations within lower elevation monitoring plots. The wholesale price of ginseng doubled in 2007. As a result, the number of issuing permits increased dramatically across some of the districts with the greater ginseng abundance. The price of Galax also increased by the end of the year. Issued permits also increased as a result.</p>

Special Report: Plant Survey in the Upper Chattooga River Watershed

A field review was completed in 2007 for the rare plant species within the upper 21-mile reach of the Chattooga River Wild and Scenic Corridor as part of the analysis for possible permitting of boating within the reach. This area includes the Chattahoochee NF and Sumter NF within the southern portions and the Nantahala NF in the very headwaters and extends along a portion of Ellicott Rock Wilderness.

Forty-four rare plant species have been documented within in the upper 21-mile reach of the Chattooga River Wild & Scenic Corridor. These include 1 federally endangered lichen, 22 regional sensitive species, and 19 locally rare species. All except 7 of these 44 species were first documented or relocated during the recent fall plant survey. Over 90 site locations were documented during the fall 2007 survey. Thirty-two of these species were documented on portions of the main stem of the Chattooga River. Primary suitable habitat for the majority of the rare species included boulders in the middle and/or edge of the river and alluvial sandbars. Suitable habitat for the majority of the river-associated rare species decreased from the northern portion to the southern portion of the 21-mile reach. Ecological changes resulting in these patterns include the river widening as it traverses downstream, the presence of fewer boulders and protected grottoes, lower humidity and higher temperatures.

The survey concentrated on the diversity of non-vascular plants within the Chattooga River Gorge. Over 1000 specimens were collected in the field and verified by either forest service personnel or Dr Paul Davison at University of North Alabama or Dr. Allen Risk at Moorehead State University. The collection of rock gnome lichen in NC just north of the state border represents the southernmost occurrence for this federally endangered plant. Two other stream associated rare lichens, waterfan, a sensitive species, and rockshag, locally rare, were also located within the NC portion of the upper headwaters.

Liverworts were found to have the greatest diversity of rare species within the upper headwaters. Sixteen rare species are known from the drainage; thirteen of these were first documented or re-confirmed during the 2007 survey. Eleven of the species occur within the North Carolina portion of the reach. While the collections in Georgia and South Carolina were less diverse, one collection in Georgia is noteworthy. *Lejeunea bloomquistii* was only located along the western banks of the Chattooga River in Georgia and was verified in 2007 for the first time in 50 years. Seven mosses have been located within the upper Chattooga River Gorge; three of these were verified during the survey. All seven of the species occur within North Carolina.

Special Report : Evaluating the Restoration of Buck Creek Serpentine Barrens

A patchwork of forest, dense grass patches and partially open woodland occurs across a serpentine site surrounding Buck Creek in Clay County, North Carolina on the Nantahala National Forest (**Fig. 1**). The dominant rock types, serpentized dunite and olivine, and the thin high base soils influence the striking vegetation present on this site. The Pitch Pine-White Oak/ Big Bluestem-Prairie Dropseed Woodland is believed to be endemic to the Buck Creek area. In addition to the presence of the unusual plant community (G1 rank), the presence of rare species adds to the conservation importance of the site. Twenty-two state-listed rare plant species and four state-listed butterfly species occur within the site. Most of these species are primarily wide-ranging and globally secure (G4 or G5 rank), yet rare in NC; a few grasses are restricted to only this site within the state. Serpentine rock is well-known for its tendency to generate locally endemic species, however relatively few endemics have been described from the serpentine areas in eastern North America. Within the Buck Creek site one endemic species, Rhiannon's aster (*Symphyotrichum rhiannon*), was recently described in 2004.

In 1995, the U.S. Forest Service initiated active conservation management of the site, using prescribed fire as the primary tool. At the time there was no evidence of a previous fire for at least 50 years. The scattered patches of open grassland within the forested matrix indicated periodic fire to restore and maintain this unique community. The natural fire frequency for the community type was not known when burning was initiated in 1995 (**Fig 2**). Eight North Carolina Vegetation Survey permanent plots were established within the burn areas to document current vegetation and provide a baseline for detecting change. Selected plots were resampled in 1999 by USFS personnel and in 2007 by Elizabeth Marx, a University of North Carolina undergraduate student.

The initial burns were successful in stimulating flowering of previously sparsely flowering species, such as the rare grass, prairie dropseed. However the burn intensity was insufficient to appreciably decrease woody vegetation and create large enough dispersed openings. In 2000 mechanical canopy thinning and shrub slashing was completed prior to additional burns. Three burning blocks, varying in size from 50 to 230 acres, were delineated across the potential restoration area to annually provide refugia sites for the diverse lepidopteron flora. Eight burns have been conducted across the three areas from 1995 to 2007. During that time each of the burning blocks has burned once. One area has burned three times; while a portion of a fourth area has burned four times in the last 13 years. The resampling of the permanent plots indicated woody species have been significantly reduced as a result of the burns. The six rare grasses, prairie dropseed, slender wheatgrass, tufted hairgrass, drooping bluegrass, Porter's reed grass, and spiked muhly are more evident across the more frequently burned areas. Both prairie dropseed and Porter's reed grass have strikingly

increased in traversing the site. Initial plot data shows that all the rare dicot herbs prefer more open conditions, occurring almost exclusively within plots with less than 50% tree cover and primarily in plots with less than 40% canopy cover. All are less abundant than the rare grasses; cover estimates in plots typically have not exceeded 2% cover. As a result it is more difficult to detect change in abundance from the active management. However most have increased in abundance; some appear stable, while one, fringed gentian, has declined.

Goal or Desired Condition: Attributes and resources of special interest areas including wilderness, research natural areas, and areas registered by the North Carolina Natural Heritage Program are maintained.

Monitoring Item	Results
Attributes and Resources of Wilderness	The National Forests in North Carolina have continued to make progress on the Chief of the Forest Service’s 10-year Wilderness Stewardship Challenge. The goal is to bring all Wildernesses up to a high standard of management by 2014. The Forest has completed human-impact condition inventories on most Wildernesses and is developing a prototype Wildland Fire Use Plan for Linville Gorge Wilderness. This plan will make it clearer how naturally ignited fires may continue to burn if they are providing ecological benefits and not endangering private property. Also, a prototype inventory of invasive species is being conducted in Shining Rock Wilderness to serve as a model for future invasive species inventories.

General direction: Heritage resources, which are listed on or eligible for the national register of historic places or the national register of historic landmarks, are protected. Suitable sites are developed and/or interpreted for public use and enjoyment.

Monitoring Item	Results																											
Heritage Resource Sites Identified in Relation to Acres Surveyed			Sites & Properties Identified	Acres Surveyed																								
	FY 2007		147	2,769																								
	ALL-TIME TOTAL		5,789	185,279																								
Sites Monitored	<table border="1" data-bbox="600 464 1409 760"> <thead> <tr> <th data-bbox="600 464 802 529">Forest</th> <th data-bbox="810 464 1003 529">Number of Sites</th> <th data-bbox="1012 464 1205 529">Sites Stable</th> <th data-bbox="1213 464 1409 529">Sites Impacted</th> </tr> </thead> <tbody> <tr> <td data-bbox="600 535 802 600">Nantahala / Pisgah</td> <td data-bbox="810 535 1003 600">12</td> <td data-bbox="1012 535 1205 600">7</td> <td data-bbox="1213 535 1409 600">5</td> </tr> <tr> <td data-bbox="600 607 802 639">Croatan</td> <td data-bbox="810 607 1003 639">7</td> <td data-bbox="1012 607 1205 639">4</td> <td data-bbox="1213 607 1409 639">3</td> </tr> <tr> <td data-bbox="600 646 802 678">Uwharrie</td> <td data-bbox="810 646 1003 678">10</td> <td data-bbox="1012 646 1205 678">6</td> <td data-bbox="1213 646 1409 678">4</td> </tr> <tr> <td data-bbox="600 685 802 717">Total:</td> <td data-bbox="810 685 1003 717">29</td> <td data-bbox="1012 685 1205 717">17</td> <td data-bbox="1213 685 1409 717">12</td> </tr> <tr> <td data-bbox="600 724 802 756">Percent:</td> <td data-bbox="810 724 1003 756">100%</td> <td data-bbox="1012 724 1205 756">59%</td> <td data-bbox="1213 724 1409 756">41%</td> </tr> </tbody> </table>				Forest	Number of Sites	Sites Stable	Sites Impacted	Nantahala / Pisgah	12	7	5	Croatan	7	4	3	Uwharrie	10	6	4	Total:	29	17	12	Percent:	100%	59%	41%
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Tribal Relations Activities	<p data-bbox="600 805 1829 951">The Forest continued to work in partnership with other agencies, American Indian Tribes, local communities and universities on the National Historic Trail of Tears. Relationship with the Catawba Indian Nation expanded as part of the Uwharrie Forest Plan Revision.</p>																											
Site Protection	<p data-bbox="600 990 1829 1136">Twenty-nine (29) heritage resources, 19 prehistoric archeological sites and 10 historic structures, regarded as susceptible to vandalism or looting, potential impact from project implementation, visitor use and/or natural deterioration were visited and formally assessed and documented. Twelve of these sites (41%) had adverse impacts.</p> <p data-bbox="600 1143 848 1175">Monitored Sites:</p> <table border="1" data-bbox="600 1182 1829 1414"> <thead> <tr> <th data-bbox="600 1182 928 1214">Forest</th> <th data-bbox="936 1182 1264 1214">Prehistoric Sites</th> <th data-bbox="1272 1182 1499 1214">Historic Sites</th> <th data-bbox="1507 1182 1829 1214">Total Sites Monitored</th> </tr> </thead> <tbody> <tr> <td data-bbox="600 1221 928 1253">Nantahala / Pisgah</td> <td data-bbox="936 1221 1264 1253">6</td> <td data-bbox="1272 1221 1499 1253">6</td> <td data-bbox="1507 1221 1829 1253">12</td> </tr> <tr> <td data-bbox="600 1260 928 1292">Croatan</td> <td data-bbox="936 1260 1264 1292">4</td> <td data-bbox="1272 1260 1499 1292">3</td> <td data-bbox="1507 1260 1829 1292">7</td> </tr> <tr> <td data-bbox="600 1299 928 1331">Uwharrie</td> <td data-bbox="936 1299 1264 1331">9</td> <td data-bbox="1272 1299 1499 1331">1</td> <td data-bbox="1507 1299 1829 1331">10</td> </tr> <tr> <td data-bbox="600 1338 928 1370">Total:</td> <td data-bbox="936 1338 1264 1370">19</td> <td data-bbox="1272 1338 1499 1370">10</td> <td data-bbox="1507 1338 1829 1370">29</td> </tr> </tbody> </table>				Forest	Prehistoric Sites	Historic Sites	Total Sites Monitored	Nantahala / Pisgah	6	6	12	Croatan	4	3	7	Uwharrie	9	1	10	Total:	19	10	29				
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Monitoring Item	Results
<p>Site Protection [cont.]</p>	<p>Most Forest management projects such as recreation developments, timber harvest, road construction, etc., have not adversely impacted heritage resources. However, timber salvage and wild land fire suppression activities impacted significant sites and require Archeological Resources Protection Act (ARPA) damage assessments and mitigation. There are also several ARPA mitigation projects outstanding on the Forest due to lack of funds.</p> <p>Increasing numbers of Forest users have impacted sites. Dispersed recreation activities, off-highway vehicles, horse trail use, mountain bike trail use, and dispersed camping are impacting significant archeological resources. Impacts were observed at many sites, ranging from minor to severe erosion and exposure of artifacts. Three of the monitored sites were impacted by OHV and horse use. User-created trails impacting sites need to be closed. There has also been recent looting at 5 of the monitored sites, 4 on the Uwharrie Ranger District and 1 on the Pisgah Ranger District.</p> <p>Several sites located along rivers on the Croatan Ranger District are being eroded. Plans are being developed with the State Historic Preservation Office to help deter loss.</p> <p>The Forest has seen an increase in requests for metal detector use. Seven historic structures / sites were monitored. Stabilization and maintenance are underway at the Thornburg Property and Cradle of Forestry. The Wilson Lick Ranger Station is in need of maintenance and repair. Two National Historic Trails, the Trail of Tears and Over Mountain Victory Trail, are well preserved and being interpreted. The Historic French Broad Work Center has been re-roofed and two lookouts, Albert Mountain and Panther Top are getting new roofs.</p>

Other Monitoring

Monitoring Item	Results																				
Land Adjustment in Support of LRMP Goals	<p>Acres Conveyed by Exchange/Small Tracts or Admin Sale: Nantahala NF = 0 Pisgah = 5.66 Uwharrie = 0</p> <p>Acres Acquired by Purchase, Donation, Exchange: Nantahala NF = 35.19 Pisgah NF = 0 Uwharrie NF = 4.58</p>																				
<p>Special Uses Compatible With LRMP Goals</p> <p>Special Uses Compatible With LRMP Goals [cont.]</p>	<p>Special use authorizations allow for the use of National Forest System lands for a wide variety of purposes. Some authorize facilities and services necessary for public health, welfare, and safety while others authorize uses of a private nature.</p> <p style="text-align: center;"><u>Number of Special Use Permits by Forest</u></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Forest</th> <th>Recreation</th> <th>Lands</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Nantahala</td> <td>155</td> <td>654</td> <td>719</td> </tr> <tr> <td>Pisgah</td> <td>205</td> <td>329</td> <td>534</td> </tr> <tr> <td>Croatan</td> <td>7</td> <td>100</td> <td>107</td> </tr> <tr> <td>Uwharrie</td> <td>34</td> <td>100</td> <td>134</td> </tr> </tbody> </table> <p>Of these permits state-wide, 1,093 are for land-based uses such as road easements and water systems, and 401 permits are for recreation activities such as outfitting, guiding, and whitewater rafting. There are a total of 1,494 permits state-wide.</p> <p>Key projects included:</p> <ul style="list-style-type: none"> - 28 NC Department of Transportation Projects for the improvement of existing public roads. - Six Federal Highway projects for major multi-lane highways- Havelock Bypass and US 17 – Croatan; Corridor K and NC 143 – Cheoah; NC 215 – Pisgah; and NC 24/27 – Uwharrie. - Relicensing of three hydroelectric projects involving six reservoirs. 	Forest	Recreation	Lands	Total	Nantahala	155	654	719	Pisgah	205	329	534	Croatan	7	100	107	Uwharrie	34	100	134
Forest	Recreation	Lands	Total																		
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Monitoring Item	Results
	<p>Program emphasis will continue to be the monitoring of existing uses to ensure they are operated and maintained with minimal impact on the land. New applications are managed to ensure they are consistent with the Forest Land and Resource Management Plans and Forest Service Regulations. Cost Recovery regulations have been implemented that allow the Forest Service to assess fees for processing applications, amendments and transfers of permits.</p>
<p>To what extent are new minerals leases limited to those where the minerals activity can occur and still maintain the other resource objectives?</p>	<p><u>Croatan</u>: No new mineral leases have been issued during the past year and areas are limited to areas that can maintain forest plan resource objectives. <u>Uwharrie</u>: No new mineral leases have been issued during the past year and areas are limited to those that can meet forest plan resource objectives. <u>N/P</u>: One new mineral lease was issued for the expansion of the Massey Branch Quarry. The expansion consisted of 21.5 acres adjacent to the existing quarry in an area that is suitable for mineral extraction. Resource objectives were analyzed in an environmental assessment and were in compliance with forest plan objectives.</p>
<p>Road Construction, Reconstruction, and Obliteration</p>	<p>The Forest is in the third year of a major storm restoration effort, though nearly all storm repairs have been completed. September 2004 storms damaged major segments of the Forest Road System especially on the Nantahala and Pisgah Forests. The following miles of road were reconstructed during FY '07: <i>ML 1-2 16.2 miles, ML 3-5 13.6 miles.</i></p> <p>Contracts for four new road bridges were awarded/constructed in FY '07. LBJ, 2-Log Hollow, and Tellico-Rough Crossing.</p> <p>1.7 miles of new road was constructed in FY '07 as follows: Uwharrie-6719 & 6692A - 0.24 miles, Nantahala-7057D-1-1.48 miles.</p> <p>Due to the focus of funding high priority restoration projects across the Forest, there was no road obliteration accomplished in FY '07.</p>

Fire Management

Monitoring Item	Results							
National Fire Plan Accomplishments for FY 2007	Year	Prescribed Fire Accomplishments - National Forests in North Carolina						
		Total Acres	Fuels	Wildlife	Site Prep	Other (T&E)		
	2007	Croatan		18,379	494			
		Uwharrie		1,064	346	3		
		N/P		7,678	647			
		TOTAL		27,121	1,487	3		28,611
	2006	Croatan		16,000	4,500	432		
		Uwharrie		1,819	335	225		
		N/P		5,796		294		
		TOTAL		23,615	4,835	951		29,401
	2005	Croatan		18,885	4,654	965		
		Uwharrie		1,696		223		
		N/P		4,949		442		
		TOTAL		25,530	4,654	1,630		31,814
	2004	Croatan		18,506		500		
		Uwharrie		1,808				
		N/P		5,573		259		
		TOTAL		25,887		759		26,646
	2003	Croatan		15,810				
		Uwharrie		1,666				
		N/P		4,859				
		TOTAL		22,335	0	0		22,335
	2002		21,854	22,180				
2001		20,000	20,000					
2000		26,000	26,000					
1999	No information available							
1998		26,352	22,734	3,618				
1997		26,092	22,190	2,183	1,154			
1996		15,964	13,900	1,231	401			
1995		12,881	9,279	586	879			

	1994		13,027	7,940	2,931	648		
	1993		11,399.50	7,057	2,986.50	1,356		
	1992		7,944	4,862	2,202	725	155	

FY 2008 Action Plan

- 1) Complete revision of the Uwharrie Land Management Plan.**
- 2) Continue to emphasize creation of early successional habitat on the Nantahala and Pisgah.**
- 3) There needs to be a consistent Forest-wide policy on metal-detectors developed and instituted.**

LIST OF PREPARERS

Ruth Berner – Forest Planner – M&E Report Coordinator

Report Contributors:

John Blanton - Silviculturist

Rodney Snedeker – Archeologist

Ray Johns – Special Uses/Lands

Lea Wofford –Fire Management Officer

Gary Kauffman – Botanist

Dale Remington – Timber Sale Forester