

**DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT (FONSI)
FOR
VEGETATION CONTROL: NON-NATIVE INVASIVE SPECIES
AND SHORTLEAF PINE RESTORATION RELEASE**

**USDA Forest Service
Chattahoochee-Oconee National Forest
Chattooga River Ranger District
Banks, Habersham, Rabun, Stephens, Towns, Union and White Counties, Georgia.**

INTRODUCTION

On September 6, 2006, the Chattooga River Ranger District sent out a scoping letter which outlined the district's proposal to treat areas throughout the district which are currently occupied by non-native invasive species (NNIS) or other native less-desirable species (such as red maple, in the case of shortleaf pine restoration release). Treatment methods outlined in the proposal which would be used to control NNIS and other undesirable species include manual hand-pulling, mechanical methods, such as bull dozing, and herbicide application.

Based on comments from the public, internal interdisciplinary team members and other interagency cooperators, an Environmental Assessment (EA) was prepared which outlined the proposed action, alternative treatment methods and the potential affects associated with each. Comments on the EA were again solicited from the above mentioned groups and then used to help the deciding official arrive at a final decision.

PURPOSE AND NEED FOR ACTION

This proposal was originally developed to address one of the biggest biological threats to our National Forests – native species habitat loss due to NNIS and other native less-desirable species. Several “forest health” and “native ecosystem restoration” goals and objectives outlined in the revised Land and Resource Management Plan (LMP) for the Chattahoochee-Oconee National Forest (2004) would be met as a result of this proposal. Specific goals and objectives which will be met, in part, by the activities in this proposal include:

NNIS Treatment

Goal 1, LMP page 2-4: Contribute to the viability of native and other desirable wildlife species.

Goal 12, LMP page 2-8: Minimize adverse effects of invasive native and non-native species. Control such species where feasible and necessary to protect national forest resources.

Goal 15, LMP page 2-12: Contribute to conservation and recovery of federally-listed threatened and endangered species through habitat maintenance and/or enhancement and, where possible, for their reintroduction into suitable habitats, and contribute to avoiding the necessity for federal listing of other species under the Endangered Species Act.

Goal 40, LMP page 2-39: Through appropriate management, reduce populations of native and non-native pest species and vulnerability to them.

Shortleaf Pine Restoration

Goal 3, LMP page 2-6: Restore disturbance – dependent forest types

- **Objective 3.1:** Restore shortleaf pine on the Chattahoochee National Forest where it once occurred.

Goal 8, LMP page 2-7: Maintain or restore native tree species (shortleaf pine) whose role in the forest ecosystems is threatened by insects (specifically the southern pine beetle (SPB)), fire exclusion, or forest succession.

- **Objective 8.1:** Maintain shortleaf pine forests on the Chattahoochee National Forest.

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DECISION

This Decision Notice (DN) and Finding of No Significant Impact (FONSI) documents my decision to restore shortleaf pine (and associated hardwood species) and to eradicate NNIS at several locations on the Chattooga River Ranger District. I have reviewed the Environmental Assessment (EA) for the project and have considered comments received from the public, interdisciplinary team members and interagency cooperators. I have weighed the benefits and risks associated with the proposed action and the alternatives.

I have decided to implement Alternative 2 as described in the EA. This alternative plans an adaptive (changing) treatment for NNIS and the release of shortleaf pine (and associated hardwood) communities as detailed in the proposed action (See Appendix A for a detailed description of the original proposed action.) This alternative responds to the issues brought forth by the public, interagency partners and interdisciplinary team members.

This alternative recognizes that NNIS infestations constantly change and evolve, making it difficult to keep a proposal and eventual decision current. The most complete inventory will never cover the entire potentially infested area. It is certain that not all infestations can and will be mapped at one time. Even under the assumption that an inventory is 100% complete, by the time the inventory is finished, infestation size and number will already be changing in areas inventoried early in the survey.

Decisions that are specific to known locations and species of NNIS, such as the Proposed Action, do not allow for treatment of the areas that were unknown at the time of the decision. The time necessary to complete new and or additional analysis can take six months to a year. New populations can expand during this period. Treatment costs can increase substantially or the opportunity of containing the populations at a small size can be lost.

NNIS Priorities: The priority for treatment under this alternative is based on the impact to the biodiversity in the area combined with a priority assessment for the rapid response to new invasive species detected on the district. In addition, the location of the infestation will be prioritized.

Table 1 displays species already or likely to be present on the district, even though some species have not been detected. The I-Rank (rounded impact ranking) was used in combination with the Southern Region weed category to provide a general priority for treatment. In addition, the following considerations will be used to alter this treatment priority, when and where necessary:

- New species and/or new infestations detected within the District would make the infestation a high priority. This would include species not listed in Table 3, if detected on the District. Especially, species that have a “high” rounded I-ranking (see table below) and/or are in Regional Weed Category 1. This stipulation follows the “*National Strategy and Implementation Plan for Invasive Species Management*,” where “early detection and rapid response” are one of four short-term actions outlined.
- All individual plants of a species within a contiguous area would be treated at one time to avoid re-infestation. The only exception to this would be where funding limits treatment. Under this alternative, a ¼-mile radius will be used to define “contiguous.” For example, all autumn olive plants within the Sarah’s Creek Campground area would be treated under one action. Another example would be treatment of Kentucky 31 tall fescue within wildlife openings that are within ¼-mile of each other. Limitations due to funding may not provide for treating all contiguous infestations. For example, Japanese stiltgrass treatments along some portions of the road system may be limited since portions of this infestation may be contiguous over extensive portions of roads. Treatment of the contiguous portion may not be possible due to funding in any one fiscal year. In cases like this, treatment boundaries would be set to take in logical portions of the infestation that best limit the re-infestation of the area and also make the best use of existing funding during each fiscal year.
- Infestations of NNIS within or adjacent to the following Management Prescriptions will receive higher priority than other areas:
 1. Designated Wilderness Areas (MP 1.A) (only manual methods, ex: hand pulling)
 2. Recommended Wilderness Areas (MP 1.B) (same as above)

3. Designated Wild and Scenic Rivers (MP 2.A)
 4. Recommended Wild and Scenic Rivers (MP 2.B)
 5. Inventoried Roadless Areas
 6. Botanical – Zoological Areas (MP 4.D)
 7. Rare Communities (MP 9.F)
- Treatments in areas of high traffic where the infesting NNIS could be spread widely without immediate treatment. These sites would be included in a planned treatment as a higher priority than sites of NNIS that are not as threatening for immediate spread. An example of this would be a Japanese stilt grass infestation along the parking lot at a trailhead, where immediate spread could easily occur.

Table 1. Priority based on species of non-native invasive plants (NNIS) of concern on the Chattooga River Ranger District, Chattahoochee-Oconee National Forests.

Scientific Species	Common Name	I-Rank* (Nature Serve)	Regional Weed Category	Priority Treatment
<i>Celastrus orbiculatus</i>	Oriental Bitter-sweet	High	1	1
<i>Polygonum cuspidatum</i>	Japanese Knotweed	High	1	1
<i>Microstegium vimineum</i>	Japanese Stilt Grass	High	1	1
<i>Ligustrum sinense/vulgare</i>	Chinese/European Privet	High	1	1
<i>Elaeagnus umbellulata/pungens</i>	Autumn/Thorny Olive	High	1	1
<i>Sorghum halepense</i>	Johnson grass	High	1	1
<i>Lolium arundinaceum</i>	Kentucky Fescue	High	1	1
<i>Lonicera japonica</i>	Japanese Honeysuckle	High	1	1
<i>Spiraea japonica</i>	Japanese Meadowsweet, Spiraea	High	2	2
<i>Lespedeza cuneata</i>	Sericea lespedeza, Chinese bushclover	Medium	1	3
<i>Rosa multiflora</i>	Multiflora Rose	Medium	1	3
<i>Albizia julbrissin</i>	Silk Tree, Mimosa	Medium	1	3
<i>Ailanthus altissima</i>	Tree-of-heaven	Medium	1	3
<i>Pueraria montana var. lobata</i>	Kudzu	Medium	1	3
<i>Dioscorea oppositifolia</i>	Chinese Yam	Unknown	1	4
<i>Miscanthus sinensis</i>	Chinese Silver Grass	Medium	2	5
<i>Wisteria sinensis</i>	Chinese Wisteria	Medium	2	5
<i>Paulownia tomentosa</i>	Princess Tree, Royal Paulownia	Medium	None	6
<i>Digitaria spp.</i>	Tropical crabgrass and smooth crabgrass	Not Yet Assessed	None	7

* NatureServe, in collaboration with The Nature Conservancy and the U.S. National Park Service, assessed species individually for each specified region and assigned each an Invasive Species Impact Rank (I-Rank) of High, Medium, Low, or Insignificant to categorize its negative impact on natural biodiversity within that region.

Locations: Locations of treatment would include all of the areas presented in the Proposed Action (Appendix A), additional areas identified since issuing the scoping letter (see below), and additional areas as defined in Table 2:

Additional sites identified since issuing the Proposed Action (with assistance from Joe Gatins, Georgia Forestwatch):

- Sites east of the Bartram Trail and south of the foot bridge on the West Fork of the Chattooga River. Privet and autumn olive have been noted at these sites.
- Wildlife openings in Page Fields, located south of the Warwoman Road bridge across the West Fork of the Chattooga River and west of the river itself. Privet and autumn olive have been noted at this site.
- Two wildlife openings along Wildcat Creek Road adjacent to the Tray Mountain Wilderness. Autumn olive, privet, Kentucky 31 tall fescue, sericea lespedeza, and others have been noted in these sites.

Table 2. Other proposed non-native invasive species (NNIS) project areas on the Chattooga River Ranger District, Chattahoochee-Oconee National Forests.

Treatment Area Type	Sites	Miles (approx)	Affected Portion of District (%)	Acreage (approx)
Known and mapped sites	135	- - -	0.27	748
Roads, including the area 100 feet on each side.	- - -	433	3.65	9,939
Trails, including the area 50 feet on each side.	- - -	239	0.86	2,352
Botanical – Zoological Areas (MP 4.D)	7	- - -	0.19	2,504
Rare Communities* (MP 9.F)	3	- - -	0.17	451
Former Domestic/Agricultural Locations	593	- - -	0.12	333
Totals...	- - -	- - -	5.26	16,326

*Includes known and mapped Rare Communities. Other unmapped communities are also included in this treatment area, but are not reflected in this acreage.

Methods: Methods in the selected alternative would be as described under the Proposed Action, including the release of young trees within regeneration areas.

Treatment methods for NNIS, in order of priority, would include the following:

- ❖ Manual methods (first priority): hand-pulling and hand-clipping/cutting designed to eradicate small infestations or as a follow-up treatment (contiguous areas of herbaceous plants of approximately 1/4 acre or less; small shrubs and trees of less than 10 individuals), when biologically and economically effective. Examples of tools that could be used under this method include grass clippers, loppers, pruning saws, machetes, brush hooks, sling blades, and scythes. This method (manual, non-pesticide) would also be used exclusively in Wilderness Areas,

Recommended Wilderness Study Areas, and the Appalachian National Scenic Trail Corridor.

- ❖ Mechanical methods (second priority): these methods would be used to control or eradicate small infestations (as defined above) or targeted at larger infestations where the cost is lower or comparable to pesticide applications. Examples of this method would include cutting by chainsaw, buzzsaw, string trimmers, or mowers. Additional treatment with a propane torch, on some sites, would also be included. Propane torches would be used only under periods of low fire danger, and primarily within bog communities which have a low potential to carry a fire.
- ❖ Pesticide methods (third priority): The objectives of pesticide use would be to control and possibly eradicate from the site NNIS infestations where manual or mechanical methods would be costly (compared with pesticide methods) and/or not effectively control the species on the site. Techniques for application would be the same as those described under the Proposed Action. The additional NNIS added into this alternative would be controlled as follows:

Table 3: Description of Treatment for Added NNIS under Alternative 2

NNIS	Proposed Treatment
Japanese knotweed, Japanese honeysuckle, Japanese meadowsweet, multiflora rose, Chinese yam,	Foliar spray with triclopyr amine during the growing season four times over a six year period.
Tree of heaven, princess tree (royal paulonia)	Cut stem treatment with triclopyr amine during the growing season up to three times.
Chinese silver grass	Foliar spray with glyphosate during the growing season up to three times.

- *Triclopyr in the amine formulation is currently found in brand name Garlon 3A; triclopyr in the ester formulation is currently found in brand names Garlon 4, Forestry Garlon 4, and Pathfinder II.*
- *Glyphosate is the active ingredient in brand names such as Roundup, Accord and Rodeo (aquatic labeling).*

Restoration “Release” Treatment Strategy: Regeneration surveys were completed in 2008 on several of the sites proposed for shortleaf pine release. Table 4 includes the results of these surveys. These surveys showed a variety of results as to the survival of the planted shortleaf and the “recruitment” of natural pine / hardwood regeneration. For example, some of the stands proposed for treatment currently have many more hardwood stems per acre than shortleaf pine, some stands have somewhat equal proportions of pine and hardwood stems per acre, while others have more pine than hardwood. For these reasons, stands selected for release in this proposal will be released to perpetuate the diversity of tree species currently occupying the site. Stands which currently contain more pine than hardwood will be released to maximize survival of the planted shortleaf, since these sites obviously support the best conditions for restoring shortleaf pine. Stands which currently have equal proportions of pine and hardwood will be released to perpetuate the growth and development of a mixed pine and hardwood (preferably oaks) community. Stands which currently have many more hardwoods than pine will be released to maintain the few shortleaf that are still present, along with the majority of

oaks, hickories and other desirable hardwood species. Release will not be designed nor conducted to create or maintain a monoculture of pine. Both planted shortleaf and oak or hickory natural regeneration will be released. The greatest threat of a pine monoculture is in those stands with superabundant pine regeneration if no efforts are made to maintain oaks or hickories in a competitive position. **NOTE:** Compartment 42, Stand 6, which was included in the original proposed action, was dropped from this decision due to a recent prescribed fire which eliminated the need for release under this alternative. As a result, this alternative includes treatment of 20 young shortleaf pine stands which are being adversely affected by overtopping vegetation and 5 young pine communities which have been killed by southern pine beetle, for a total treatment area of 401 acres (previously 423 acres). Eight stands included in the original proposed action were not surveyed for regeneration success and are not included in the Table 4. However, these stands will be surveyed prior to release, and based on the results, the release strategy for these stands will be the same as that mentioned above. Overall, the result of this action will be a mixture of desirable species, including pine, pine/hardwood or hardwood/pine.

Table 4. Results of 3 Year Regeneration Checks for all young shortleaf pine stands that are being adversely affected by overtopping vegetation.

Comp.	Std.	Acres	Planted Species	Species Group	Avg. Trees/Acre	Total
203	4	25	shortleaf	pine hardwood	819.23 317.31	1136.5
211	37	21	shortleaf	pine hardwood	1343.2 1227.3	2570.5
213	31	19	shortleaf	pine hardwood	337.5 1687.5	2025
215	23	6	shortleaf	pine hardwood	150 900	1050
205	24	8	shortleaf	pine hardwood	393.75 956.25	1350
209	29	6	shortleaf	pine hardwood	525 3075	3600
209	30	7	shortleaf	pine hardwood	562.5 637.5	1200
68	19	15	shortleaf	pine hardwood	600 1471.9	2071.9
60	18	8	shortleaf	pine hardwood	431.25 3375	3806.3
60	16	15	shortleaf	pine hardwood	187.5 1940.6	2128.1
62	4	12	shortleaf	pine hardwood	325 325	650
62	37	13	shortleaf	pine hardwood	642.86 1425	2067.9

67	9	7	shortleaf	pine hardwood	3375 2250	5625
55	11	8	shortleaf	pine hardwood	168.75 2362.5	2531.3
66	9	19	shortleaf	pine hardwood	210 1950	2160
67	14	8	shortleaf	pine hardwood	468.75 2156.3	2625
87	1	23	shortleaf	pine hardwood	406.25 2537.5	2943.8

Due to the adaptive nature of this alternative, compliance with the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA) will be as follows:

Threatened and Endangered (ESA), Forest Service Sensitive and Locally Rare Species: A Forest Service biologist will examine and analyze all sites individually. The biologist will determine potential impacts to Proposed, Endangered, Threatened, or Sensitive (PETS) and locally rare (LR) species using information such as proximity to known locations of PETS and LR species, Forest Service and Georgia Natural Heritage Program (GNHP) inventory records, proximity to rare communities, and the quality of adjacent habitat. The biologist will analyze planned control measures and determine if additional inventories and/or additional documentation are necessary, if any additional species require analysis before control activities are implemented, and will establish requirements for any additional mitigation measures.

Cultural/Heritage Resources: With the exception of two sites (Davidson Creek and Sarah’s Creek), no ground disturbing activities are anticipated.

No historic properties eligible for nomination to the National Register of Historic Places (NRHP) were found during cultural resource surveys at Davidson Creek and Sarah’s Creek.

Other known and unknown (identified in the future) treatment sites will be submitted to the Forest Archeologist for review and consultation with the State Historic Preservation Officer (SHPO) and the Tribal Historic Preservation Officer (THPO), if needed. Treatment would not take place until it has been determined that the treatment will have no effect on historic properties eligible for or listed on the NRHP.

Timing: NNIS Treatments would be implemented incrementally on infested sites over the next 10-12 years. Treatments would be based on funding and available volunteer time (manual and mechanical methods). The anticipated annual treatment acres by treatment method are as follows:

- Up to 5 acres of manual treatments, such as hand-pulling, hand-cutting, or non-motorized mowing;

- Up to 100 acres of mechanical treatments, such as chainsaw, string trimmer, buzz saw, or motorized mowing;
- Up to 500 acres of pesticide application, all non-aerial and directed at selected individual plants or shrubs.

Release of seedlings within regeneration areas would be implemented within 5 years of the date of Decision Notice, depending on available funding. Although NNIS treatments will start during the same timeframe as release treatments, NNIS invasions are expected to take longer to control than compared to release treatments, which explains the difference in the “release” and “NNIS” implementation timeframes (5 years vs. 10-12 years, respectively).

MITIGATION MEASURES

All applicable mitigation measures would be carried out as detailed in the Forest Plan and the Best Management Practices for Georgia. Some selected important mitigation measures for the treatments described above include the following:

- Only selective treatments using aquatic-labeled herbicides would be used within the riparian corridor (and other wetland habitats) (Standard FW-022). Specifically, this would include the use of aquatic labeled formulations of glyphosate.
- All herbicides would be applied at the lowest rate effective in meeting project objectives and according to guidelines for protecting human and wildlife health (Standard FW-012). The application rate and work time would not exceed levels that pose an unacceptable level of risk to human or wildlife health.
- Herbicides and application methods have been proposed that minimize the risk to human and wildlife health and the environment. Vegetable oils would be used as the carrier for triclopyr used in its ester formulation (Standard FW-011).
- Mitigation of bare soil (where invasive plants are removed) will include revegetation to a minimum of 85% coverage within 30 days of completion (Standards FW-067 and FW-068). This would include seeding and mulching of the area to protect against raindrop erosion. Within riparian corridors, erosion control blankets would be used in place of mulch. In addition, if needed, one or more silt fences would be installed immediately adjacent to the bare soil in the direction of the runoff. An exception to this would be if the treatment is completed outside of the growing season. In this case, revegetation would be completed within the first growing season (Standard FW-068). Only non-invasive plant species will be used for revegetation projects. Where possible, native species will be used on an experimental basis for revegetation projects.
- Herbicide mixing, loading, or cleaning areas in the field would not be located in sensitive areas or within 200 feet of private land, open water or wells.
- For the Proposed Action and Alternatives 2 and 3, a spill plan (see project file) would be in place.

In addition to these Standards, additional mitigation would take place based on public and internal concerns:

- Any paths created by this project will be closed using a combination of berms, tank traps, brush, rocks, and other woody debris to deter illegal traffic.
- Foliar treatment using formulations of triclopyr would require developed campgrounds or dispersed campsites to be closed for 24 hours to ensure no unacceptable public contact with treated vegetation occurs. In addition, treatments will be during seasonal and weekly low points of recreational use.

MONITORING

Monitoring is divided into three types: Implementation, effectiveness, and validation. For this project, implementation and effectiveness monitoring will be implemented both during and immediately following treatment. The following monitoring will be implemented along with the selected alternative:

Implementation Monitoring:

1. Contract administration would include observations of the contractor mixing pesticide to the lowest effective rate (Standard FW-011) with oversight by a certified pesticide applicator. In addition, attention is paid to the contractor when applying herbicide or conducting manual treatments. Proximity to watercourses is given particular attention while complying with Forest Plan Standards. Daily diaries would be completed periodically, and probable entry points are signed to notify the public of the treatment. Treatment dates, pesticide formulation, target species, and other pertinent data are documented in the contract file (Forest Service crews will also be monitored and held to the same standard as that of the contractor.)

Effectiveness Monitoring:

2. Sites or areas treated would have a visual survey completed during the middle of the subsequent growing season or later, noting the condition of the target species as well as other vegetation. This information would indicate whether or not additional treatments are necessary and the equipment needed for these treatments. These surveys would be documented in the contract/project folder.
3. The two sites where ground disturbance is planned would be monitored to determine whether or not water control structures (silt fencing, hay bales, dips, surge stone, etc.) and revegetation (or mulch) cover 80% of the area within 30 days of the activity. Prompt measures would be taken if this level of cover is not present.
4. A small subset of sites or areas treated with herbicide would have water samples collected from area streams. Certified laboratories would analyze for the presence of the applied herbicide.
5. A map would be maintained displaying known locations of NNIS. This map would reside at the Chattooga River District office, and would be updated internally and externally (public, DNR, contract inventory personnel) based on successful control actions, newly discovered locations and treatment areas by year.

6. A walk-through survey would be performed on the “released” young forest communities to determine if they need any additional treatments. After release, all young forest communities that contain a minimum of 150 shortleaf pine along with approximately 50 oaks or other mast-producing trees will be classified as “successful” and would not be treated a second time (FW-089).

RATIONALE FOR THE DECISION

The rationale for my decision was as follows:

I first eliminated the No-Action Alternative (Alternative 1) since it failed to meet the original purpose and need for the project. This alternative would not attempt to control the NNIS problem nor would it restore shortleaf pine – oak communities. I have decided this alternative would not have improved environmental conditions on the district.

I then eliminated the Proposed Action because it did not allow for an adaptive approach in treating NNIS. This alternative was static in nature and did not allow for control of newly discovered NNIS sites nor did it provide for a means to prioritize NNIS treatment areas. This alternative did not allow for a flexible and “rapid response” protocol when dealing with NNIS; therefore, I decided that this alternative was not the most efficient and effective method.

I eliminated Alternative 3 because it did not fully meet the original purpose and need for the project as discussed on page 4 of the EA. More specifically, this alternative did not include shortleaf pine activities which are a part of the purpose and need for the project, and needed to meet the forest plan goals and objectives as described in the forest plan under Goal 3, page 2-6 and Goal 8, page 2-7.

I chose Alternative 2 because it best meets the purpose and need (as described in the EA) for the project, which includes several forest plan goals and objectives as referenced above. This alternative allows for an adaptive approach in managing the district’s invasive species eradication program, which includes, among many factors, focusing priorities on those NNIS sites which serve as source populations for NNIS expansion and/or pose the greatest threat to native biodiversity. In addition, and as described on page 4 of the EA (purpose and need), this alternative will restore shortleaf pine and oak mixtures to sites where they naturally occurred and also reduce forest susceptibility to pests, such as SPB, by managing for a mixed (pine / oak) forest composition.

OTHER ALTERNATIVES CONSIDERED IN DETAIL

In addition to the selected alternative (Alternative 2), I considered all the other alternatives as presented in the EA. A complete description of these alternatives is provided in Chapter 2 of the EA and the rationale for not choosing these alternatives is mentioned above.

ALTERNATIVES ELIMINATED FROM DETAILED STUDY

A list of alternatives which were considered, but eliminated, from detailed study are included in Section 2.6, page 19 of the EA. This section also includes reasoning as to why these alternatives were eventually eliminated from detailed study.

PUBLIC AND AGENCY INVOLVEMENT

Staff on the district gathered known locations of invasive species infestations between 2005 and 2006.

On December 2, 2005, a pre-scoping meeting was held to gather internal concerns. Attendees included Steve Cole (Forester), Dick Rightmyer (Forest Soil Scientist), Charlene Breeden (Forest Hydrologist), and Ron Stephens (Forest Silviculturist).

A public involvement letter was composed and sent out to individuals, groups, and other agencies on September 6, 2006. This letter was sent out to 121 entities (see project file). Other organizations and individuals who might have interest in this project were identified and three additional letters were sent out (see project file). Several responses were received during this scoping period, and are in the project file.

On October 16, 2006, the ID Team met to list preliminary issues, clarify these issues, and recommend significant issues to the District Ranger. Significant issues were approved by the District Ranger, and are listed below with the tracking measure that will be used to show responses.

Additional contacts were made during the process of identifying significant issues, formulating alternatives, and conducting the effects analysis:

- ❖ Discussing treatment options at the Davidson Creek site with the City of Toccoa, including Don Dye and Billy Morse.
- ❖ Contacts were made with the Georgia Department of Transportation regarding the treatment of NNIS infestations along Highway 76, Old Highway 441, and Highway 75.
- ❖ Discussed treatment with the Rabun County Roads Department regarding treatment of Kudzu along Warwoman Road.
- ❖ Received additional NNIS sites from Joe Gatins, Georgia Forestwatch Representative.
- ❖ Additional discussions were completed with the Georgia Department of Natural Resources regarding experiences in the treatment of NNIS within wildlife openings and the use of carbaryl for grub control.
- ❖ Numerous internal contacts were made to find out the methods to apply herbicides for the best likelihood of control of NNIS.
- ❖ Contacts with the Forest and Zone Archeologist, Forest Botanist, Forest Hydrologist, Forest Soil Scientist, and Forest Silviculturist were made repeatedly to formulate and refine alternatives and complete the effects analysis.

A draft Environmental Assessment and letter indicating the preferred alternative (Alternative 2) was sent to interested publics on March 3, 2008. A Request for Comments was also posted in *The Clayton Tribune* newspaper on March 6, 2008 and *The Northeast Georgian* on March 11, 2008. The EA was available for public review at the Chattooga River Ranger District office located in Clayton, GA, and it was posted on the Forest Service website at www.fs.fed.us/conf/. Three letters were received during the comment period and all substantive comments were considered as well as addressed in this Decision Notice, the EA and/or in the “Response to Comments” document. The “Response to Comments” can also be found in Appendix B of this document.

FINDING OF NO SIGNIFICANT IMPACT

Based on the Environmental Assessment, I have determined that Alternative 2, including mitigation measures, is not a major federal action, either individually or cumulatively, and will not significantly affect the quality of the human environment. This determination is based upon the following factors found at 40 CFR 1508.27 (b):

1. Both beneficial and adverse effects have been considered. The proposed actions will not have a significant effect on the quality of human environment.
2. The actions will have minimal effects on public health and safety (EA pp. 28-32).
3. The actions will not have any detrimental effects on any unique characteristics of the geographic area such as park lands, historical and cultural resources, prime farm lands, wetlands, floodplains, wild and scenic rivers, or ecologically critical areas. (EA pp. 21-27).
4. Based on public involvement and analysis, the effects on the quality of the physical environment are not highly controversial (EA pp. 8-9).
5. The actions do not involve highly uncertain, unique, or unknown environmental risks to the human environment (EA – Chapter 3).
6. The actions will not set a precedent for future actions with significant effects. They do not represent a decision in principle about a future proposal.
7. The cumulative effects of the proposed actions have been analyzed and no significant effects are anticipated. Each environmental component in Chapter 3 of the EA includes consideration of cumulative effects. The context and intensity of cumulative impacts over space and time will not be significant (EA – Chapter 3).
8. This action does not adversely affect cultural resources listed or eligible for listing in the National Register of Historic Places and will not cause loss or destruction of significant scientific, cultural, or historical resources (EA pg. 24).

9. Implementing this decision will not adversely affect threatened or endangered species, or result in the loss of any other species' viability, or create significant trends toward Federal listing of the species under the Endangered Species Act (EA pp. 32- 37 and Biological Evaluation).

10. This action does not threaten to lead to violation of federal, state, or local laws imposed for the protection of the environment. This will be ensured by carrying out the proposed action in a way that is consistent with the standards, general direction, and management requirements established in the Forest Plan and this Decision Notice.

FINDINGS REQUIRED BY LAWS AND REGULATIONS

1. As mentioned above, the selected alternative is consistent with the Forest Plan for the Chattahoochee-Oconee National Forest as required by the National Forest Management Act (NFMA) 1976, 16 USC 1604(1).
2. The actions in this project will meet all requirements of the Endangered Species Act and all agreements with the State Natural Heritage Program.
3. The project is reasonable and feasible.
4. There are no significant irreversible or irretrievable resource commitments (EA pp. 41-42).
5. None of the alternatives would have an effect on the civil rights of any individual. Women, Native Americans and other minority groups would not be impacted by any of the alternatives any differently than any other public groups. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, requires Federal agencies to identify and address any disproportionate adverse human health or environmental effects of its projects on minority or low-income populations. None of the treatments would cause disproportionate, adverse impacts regarding environmental justice or protection of children.

ADMINISTRATIVE REVIEW OR APPEAL RIGHTS

This decision is subject to appeal, pursuant to the USFS regulations 36 CFR 215.11 by those who provided comments or otherwise expressed interest in this particular proposal during the 30-day public comment period. Written Notice of Appeal of this decision must be fully consistent with 36 CFR 215.14, "Content of Notice of Appeal", including the reasons for appeal. Appeals must be postmarked or received in duplicate within 45 days after the legal notice publication date in *The Northeast Georgian* and *The Clayton Tribune*. The appeal should be sent to: Chattahoochee-Oconee National Forests, ATTN: Forest Supervisor George Bain, 1755 Cleveland Highway, Gainesville, Georgia, 30501.

CONTACT INFORMATION

For additional information concerning technical aspects of this decision, contact Mike Brod, Chattooga River Ranger District at: USDA Forest Service, 809 Hwy. 441 South or by phone at 706-782-3320.

For additional information on the Forest Service planning process as it relates to this decision, contact John Petrick, Forest Planner, at 770-297-3005.

IMPLEMENTATION

If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 business days following the date of appeal disposition. (36 CFR 215.9)

RESPONSIBLE OFFICIAL

/s/ David W. Jensen

May 6, 2008

David W. Jensen
CHATTOOGA RIVER DISTRICT RANGER

Date

APPENDIX A

Appendix A: Detailed Description of the Original Proposed Action

Description of area	Ac (est.)	Proposed Treatment	Management Prescription Direction
An estimated 19 young (1-2 years) shortleaf pine forest communities that are being adversely affected by overtopping trees of other species.	291	Release shortleaf pine and oaks (along with a small component of pitch and Table Mountain pine) using directed foliar spray with imazapyr on selected woody vegetation in the late summer twice over the next five years.	Areas are within Management Prescriptions 7.E.1, 8.A.1, 9.A.3, and 9.H. This treatment for the areas proposed is consistent with Prescription Emphasis, Objectives and Standards.
An estimated 5 young pine communities that have been killed by the southern pine beetle.	132	Release regenerating pine and oak (emphasis on shortleaf pine) by spraying stems of competing and overtopping trees using a mixture of triclopyr (ester) and imazapyr twice over the next five years.	Areas are within Prescriptions 9.A.1 and 9.H, and the specific treatment is consistent with the Prescription Emphasis, Objectives and Standards.
Approximately 39 areas infested by kudzu, a non-native, invasive species.	63	Foliar spray using clopyralid for four treatments over six years.	Areas are within Prescriptions 4.D, 4.F, 4.H, 7.A, 7.E.1, 7.E.2, 9.A.1, 9.A.3 and 9.H, and the specific treatment is consistent with these Prescriptions.
One area of kudzu, a non-native, invasive species, near Davidson Creek.	5	Clear kudzu into piles and prescribed burn; scatter piles following burn; foliar spray individual re-sprouting kudzu with an aquatic formulation of glyphosate annually during the growing season for up to ten years.	This area is within Prescription 4.H, and drains into Davidson Creek, a municipal water source for the City of Toccoa. (Treatment designed in collaboration with City of Toccoa officials)
An estimated three sites infested by privet, a non-native, invasive species.	12	Basal or cut-stem spray with a mixture of triclopyr ester and imazapyr for the first treatment. Foliar spray with a mixture of triclopyr and imazapyr up to four times over six years to control root suckers and sprouts.	Areas are within Prescriptions 4.F, 9.A.1 and 9.H, and the specific treatment is consistent with the Prescription Emphasis, Objectives and Standards.
One site (Sarah's Creek Campground, infested by autumn olive), treatment to reduce populations of this species.	5	Basal spray (stems less than six inches in diameter) or cut-stem/stump treatment (stems greater than six inches in diameter) with triclopyr ester during the late winter or early spring. Dead wood would be piled and burned, and root suckers would be treated with up to five annual treatments of imazapyr	Area is within Prescription 7.E.2, and the specific treatment is consistent with the Prescription Emphasis, Objectives and Standards.

Description of area	Ac (est.)	Proposed Treatment	Management Prescription Direction
		in the late summer.	
Two sites infested by <i>Microstegium</i> , a non-native invasive species.	9	Three treatments over five years of selective foliar spray with glyphosate during the active growing season.	These areas are within the 9.H and 9.F Management Prescriptions, and this specific treatment is consistent with the emphasis and objectives in this zone.
One site of oriental bittersweet, a non-native, invasive vine.	0.10	Three treatments over five years of selective foliar spray with glyphosate late in the growing season	This area is within the 9.A.3 Management Prescription, and this treatment is consistent with the prescription.
One site of mimosa, a non-native, invasive tree.	0.25	Inject or cut-stem treatment with glyphosate for the first treatment; foliar treatment using glyphosate for up to five years thereafter.	This area is within the 4.H Management Prescription, and this treatment is consistent with this prescription.
One site of wisteria, a non-native vine.	0.50	Foliar spray using clopyralid for four treatments over six years.	This area is within the 9.H Management Prescription, and this treatment is consistent with this prescription.
Georgia Mountain Orchard, to reduce populations of Autumn olive, and privet.	5	Basal or cut-stem spray with a mixture of triclopyr ester and imazapyr once to control large autumn olive and privet. Foliar spray autumn olive and privet with a mixture of triclopyr and imazapyr during the late summer up to five times over ten years. (Control of encroaching shortleaf pine within wildlife openings along with prescribed burning have been removed from the Proposed Action due to existing and pending projects that eliminated this need.)	This area is within the 9.H Management Prescription, and this specific treatment is consistent with the emphasis and objectives in this zone.

Description of area	Ac (est.)	Proposed Treatment	Management Prescription Direction
<p>Areas within and adjacent to 57 wildlife openings: Treatment of undesirable non-native species including tall fescue, Japanese stilt grass, Sericea lespedeza, foxtail grass, crabgrass, and Bermuda grass. <i>White grubs of June bugs, Japanese beetles, and chafer beetles, originally proposed to be treated with carbaryl, has been dropped from the Proposed Action.</i></p>	<p>130</p>	<p>Foliar spray with glyphosate and sethoxydim during the growing season to control the undesirable and invasive species. <i>Due to infrequent outbreaks of grubs in wildlife openings (DNR monitoring, personal communication, Kevin Lowrey, 2/15/08) in this area, the treatment of beetles with carbaryl under the Proposed Action has been dropped.</i></p>	<p>Goal 12 states “minimize adverse effects of invasive native and non-native species ... control where necessary to protect national forest resources.”</p> <p>Wildlife openings proposed for treatment are within the following Management Prescriptions: 2.A.3, 4.H, 5.A (Glassy Mountain), 7.E.1, 8.A.1, 8.A.2, 9.A.1, 9.H and 12.A. The specific treatments are consistent with desired conditions envisioned in the Forest Plan.</p>

- *Imazapyr is an active ingredient currently found in Arsenal, Chopper, and several other brands.*
- *Triclopyr in the amine formulation is currently found in Garlon 3A, Tahoe 3A, and other products; triclopyr in the ester formulation is currently found in Garlon 4, Forestry Garlon 4, Tahoe 4E, and Pathfinder II.*
- *Clopyralid is the active ingredient found in the Transline.*
- *Glyphosate is the active ingredient in Roundup, Accord, Foresters non selective Herbicide, Rodeo (aquatic labeling), and other products.*
- *Sethoxydim is the active ingredient in the Poast.*

APPENDIX B

RESPONSE TO COMMENTS

For

**Vegetation Control: Non-Native Invasive Species and
Shortleaf Pine Restoration Release**

Date: April 29, 2008

Responsible Official: David W. Jensen
District Ranger
Chattooga River Ranger District
Chattahoochee & Oconee National Forests

In regard to the shortleaf pine “restoration” release:

- **It should be a separate proposal to gauge ‘*more fully*’ the [environmental] impacts (Wildlaw 4-11-08),**

It is the deciding official’s discretion how NEPA proposals are packaged, within the limitations of the law. In this instance, the NNIS treatments with herbicide and shortleaf pine release with herbicide use the same methods and materials, occur in the same general geographic area and in a similar timeframe, and the effects are also generally the same. For all of these reasons, the deciding official decided to analyze them together and has determined that combining the treatments in this proposal would not affect the depth of the analysis or final impacts.

- **By implication, it is an unproven technique for restoration (Wildlaw 4-11-08),**

We have been collecting first and third year regeneration check data on shortleaf pine plantings since 1976 and in more than thirty years have consistently found that we can expect to not meet a shortleaf reforestation objective when shortleaf seedlings are planted within even moderately dense competition. It has also been found that timely release from overtopping competitors can assure success.

It appears that at issue is the definition of ‘restoration’. We understand the implication to be that only ‘natural’ methods should be used and herbicides as a man-made chemical are ‘unnatural’. These distinctions would pre-suppose that humans are

separate from the ecosystem, a largely philosophical argument that may never be fully resolved as valid points can be made for either view.

Within the context of this proposal, ‘restoration’ is simply to restore the shortleaf pine species to a high-canopy position on the sites where release would occur. To do so, shortleaf must be able to compete successfully by growing at an equal or greater height rate than do competing species on these sites. If even moderately shaded, shortleaf will, within one or two growing seasons, develop a ‘set’ and will not respond to subsequent release and will die. Therefore the time window of opportunity is rather short. Well-established rootstocks of competitors such as red maple, dogwood and sourwood can easily out-compete the shortleaf which must begin as a transplanted one year old seedling. Yet these species – except red maple on mesic or hydric sites – do not form a high canopy and are not an ecosystem in their own right but rather part of larger ones in which they are components.

There is some agreement that a more complete restoration is about not just the woody high-canopy species but also about the mid-story and understory woody species and the herbaceous species on the forest floor. In a fully restored shortleaf ecosystem, shortleaf seed trees on site would provide seedlings, ground conditions would allow establishment, competition would be low and the light regime would allow development of the seedlings. This description is the desired future condition for these sites, but this proposal first addresses one of the major tasks ahead – restoring a shortleaf or shortleaf-oak forest cover.

- **Efforts should be spent elsewhere; e.g. NNIS (Wildlaw 4-11-08),**

We operate in an environment of constraint. One of the major constraints is funding. We cannot afford to do everything that is needed and must make choices, as does everyone. Our legal mandate under NFMA is to provide diversity and viable populations of native and desired non-native plant and animal species. Many of our forest plan goals and objectives are directed to that end. Shortleaf pine is a native ecosystem at some degree of risk from severe competition and southern pine beetle infestations. Forest plan objective 3.1 specifically addresses restoring 1,100 acres of shortleaf pine forests on the Chattahoochee per decade. There is also a goal to reduce or eliminate populations of NNIS, such as that stated at forest plan goal 12 and 40. While we appreciate that differing interests would, if free to do so, choose other priorities, we seek to provide balance among many and often conflicting interests and a variety of forest plan goals. This project strives to seek a balance by simultaneously restoring shortleaf pine communities in some areas, while also controlling NNIS in others.

- **It appears to be aimed at creating a monoculture of pine & thus perpetuating the southern pine beetle problem (Wildlaw 4-11-08),**

If we were seeking to develop shortleaf ‘monocultures’, the management we are proposing would be ineffective. The operational planting spacings we use, and have

used for over three decades, are wide enough to ensure the development of associated species and to delay crown closure (when ‘stem exclusion’ begins) to provide wildlife habitat. In a monoculture, we would use more intense site preparation such as shear and rake or drum chopping and plant on 4 foot by 6 foot or 6 foot by 6 foot spacings followed by one or more broadcast herbicide treatments to kill both woody and herbaceous competition. This decision states that desirable hardwood species will be released along with shortleaf pine.

Given that southern pine beetle is a native species, some risk to it will continue so long as there is pine host type on any ownership. In a fully restored shortleaf ecosystem, southern pine beetle would be a natural dynamic that would help perpetuate it. The greater risk comes not from having pine at all, but in having pine in poor health and thus more vulnerable to attack.

- **Sites being treated are poorly suited to SLP restoration and further, the SLP restoration described in this proposal conflicts with Plan direction for MRx 9.H. of restoring ‘historic plant associations’ (Wildlaw 4-11-08),**

This would depend upon the criteria being used to define ‘suitable’. We match the species to be planted on a site by considering a wide variety of factors; (i) the species occurring at the time, (ii) evidence of other species or more frequent occurrence of the same species earlier in the life of the same stand, (iii) the soil type, aspect, elevation, slope and productivity, (iv) the moisture regime, (v) species occurring on ecologically comparable sites in larger ecological units within which the stand occurs, (vi) the total amount of the ecosystem that occurs on the landscape and its general health, (vii) the expectation of achieving the chosen objective and the costs associated with doing so, (viii) the appropriateness of the species on that site to be restored and maintained through the restoration of historic fire regimes, (ix) the location relative to the native range of the species, and (x) plan goals and objectives that were set to simultaneously respond to public issues and the law.

Shortleaf is part of a natural plant association which historically, and currently, occurs on the Chattahoochee NF. Shortleaf pine is a “fire adapted” species, meaning that it has developed several evolutionary advantages (such as coppice sprouting) that allows it to thrive in “fire prone” areas, when other fire intolerant species, such as white pine, red maple and tulip poplars cannot. Therefore, when landscape scale fire is taken out of the system, shortleaf pine (and the other native yellow pines, except Virginia pine) slowly dies out, being replaced by the above mentioned fire intolerant species. Although fire is the most naturally-appropriate method to restore and maintain shortleaf pine communities, it is not always the preferred restoration method. In this proposal, it has been determined that herbicide application would be the desired method to restore shortleaf pine. This proposal does meet the focus of our forest plan management direction for management area 9.H, which states, the focus for the restoration of historical plant associations is: 1) communities in decline, 2) communities converted from historic composition by land uses, 3) communities on ecologically appropriate sites but unable to maintain themselves and 4) communities

infrequent on National Forest, but not regionally rare. As mentioned above, shortleaf pine, along with a suite of other species such as oaks, are disturbance dependent species, meaning that they are unable to maintain themselves in the absence of fire (the historical disturbance) or like disturbance. Given the absence of fire and other disturbances, good examples of naturally functioning shortleaf pine habitats are few in numbers and becoming increasingly rarer. Therefore, this SLP restoration proposal was carefully designed to meet the goals, objectives, intent and focus of the forest plan.

Herbicide release under this proposal will not eradicate all native species that commonly occur in association with shortleaf. Since shortleaf has been planted at a relatively low density to begin with, some have died in the meantime and release would be of individual surviving shortleaf stems; the number of treated competing stems is a small subset of all associated stems. As previously discussed in describing a fully restored shortleaf ecosystem, a possible likely outcome is that too many stems of associated species may still remain after release.

We agree that for any given site, except extreme sites such as very dry or very wet, several ecosystems are ‘suitable’ ecologically. Any one of the common high canopy associates which occur along with shortleaf are a candidate to be the objective of management. Oaks in particular are suitable and common associates in SLP communities, and therefore, will be released along with the SLP.

In regard to using Imazapyr to treat NNIS:

- **Using Imazapyr to treat NNIS could potentially affect non-target invertebrates (Patton 4-2-08),**

All herbicide treatments (including Imazapyr) and mechanical treatments will be applied at the lowest rate necessary for success. Based on the best available science, Imazapyr does not appear to be toxic to terrestrial or aquatic animals. The following quote taken from the most recent Imazapyr Human Health and Ecological Risk Assessment supports this finding – *“[a]dverse effects in terrestrial or aquatic animals do not appear to be likely. The weight of evidence suggests that no adverse effects in mammals, birds, fish, and terrestrial or aquatic invertebrates are plausible using typical or worst-case exposure assumptions at the typical application rate of 0.45 lb/acre or the maximum application rate of 1.25 lb/acre.* Additional information regarding human health and ecological risks associated with using herbicides included in this analysis can be found at: <http://www.fs.fed.us/foresthealth/pesticide/risk.shtml>.

In regard to treating Japanese beetles:

- **We do not support the insecticidal treatment of Japanese beetles (WildLaw 4-11-08),**

Due to infrequent outbreaks of grubs in wildlife openings (DNR monitoring, personal communication, Kevin Lowrey, 2/15/08) in this area, the treatment of beetles with carbaryl has been dropped from the proposed action and all other alternatives in this proposal.