Decision Notice And Finding of No Significant Impact For Forest Health and Longleaf Restoration Projects

Responsible Agency:

USDA Forest Service National Forests in Alabama Tuskegee National Forest Macon County, Alabama

Responsible Official:

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Introduction

In February 2004, the District Ranger, Tuskegee Ranger District, Tuskegee National Forest began scoping a proposal to improve the health of the Tuskegee National Forest and improve wildlife habitat by restoring the longleaf pine community and controlling non-native invasive plants.

Through an interdisciplinary (ID) team process, an Environmental Assessment (EA) that evaluates ten alternatives, including the No Action alternative, for Forest Health and Longleaf Restoration activities for approximately five years on the Tuskegee National Forest, of the National Forests in Alabama, has been completed. The EA documents the analysis for various combinations of activities that would lead to a healthier forest and restoration of Longleaf Pine ecosystems where appropriate.

Historic accounts of pre-settlement forests in the southeastern United States describe an open, park-like, fire-maintained ecosystem dominated by longleaf pines with an under story of fine grasses. Currently, more than 3,000 acres of loblolly and slash pine stands, as identified by CISC (Continuous Inventory of Stand Conditions), are found on the Tuskegee National Forest, predominately on upland sites where historically Longleaf Pine would have been found. Many stands are young and overstocked. Some stands are diseased. Some are suffering from decline. Other stands are mature and overstocked and some are old and decadent (falling apart).

The age class distribution of communities on the Tuskegee National Forest shows a distinct lack of early successional habitat across all major habitat groups. There is a need to increase the amount of early successional habitat.

As many as ten species of Non-native Invasive Vegetative Species have been recorded in the areas proposed for treatment. There is a need for treatment of non-native invasive plants to:

- Improve and maintain overall forest health.
- Control invasive nonnative plant species.
- Protect the habitat of existing native plant species, thereby maintaining viable populations of these native species.

Decision

Based on the analysis documented in the EA, it is my decision to adopt Alternative 2 (Proposed Action), which meets the purpose and need for this action. Specifically:

Restore the Longleaf Pine Ecosystem on Selected Sites:

• **Harvest** loblolly and slash pines on selected sites, approximately 796 acres, where this species is 'off-site' by clearcutting with reserves. Reserves are trees will be left where available, specifically longleaf and shortleaf pines, relic trees

(remnant/leftover trees from an earlier stand usually much older and larger than the trees of the current stand), and mast producers of sufficient size. Retain snags in according with Forest Plan standards. 'Off site' as used here means trees growing in a location that is better suited for another species'. Although loblolly and slash pines will grow in most locations on the Tuskegee National Forest, they thrive in moist locations, but do not grow well in deep, dry sandy soils as longleaf pine does.

- Site preparation on approximately 796 acres, restoration sites, using the methods as listed in the EA Table A.4-1. Methods will vary and are prescribed according to the existing stand conditions. After harvesting, stands will be reevaluated for site prep needs to determine if the initial site prep prescription remains valid. If changes in site prep treatments are needed, appropriate decisions will be made at that time.
- **Plant longleaf** pine on approximately 796 acres.

Commercial Thinning:

 Thinning on approximately 337 acres to reduce overstocking and remove diseased trees. Young stands of loblolly with density greater the 80 square feet of basal area per acre will be thinned to reduce the risk of SPB. Older stands with stocking greater than 90 sq. ft of BA per acre will also be thinned to carry these stands until they can be restored.

Non-native Invasive Species Control:

- Control invasive plant species by treatment with chemicals (herbicides) or with a combination of mechanical and chemical (herbicide) treatments within the project area. The project area is the area encompassed by compartments 4, 5, 8, 9, 10, 13, 14, 15, and 18 of the Tuskegee National Forest.
- Areas that will receive treatment are areas where non-native, invasive plants are established. Treatment areas would include but not limited to roadsides, recreation areas, trails, trailheads, old roadbeds, fire lines, stream banks, wildlife openings and selected areas of infestations.
- Targeted nonnative plants will be treated with selective herbicides, (EA Table 1.5-2), while avoiding or minimizing application to desirable plants. It is anticipated that many of the areas with invasive plants would need to have an initial treatment with one or more follow up treatments over a minimum period of five years. The number of follow up treatments depends upon how well the plants are established and the persistence of the plants. The treatment method depends upon the physical location of the plant including surrounding vegetation, the physical size of the plant, and the vigor of the plant, the plant species and the time of year the treatment is applied.

The following types of manual herbicide treatment methods are proposed:

- Directed Foliar Sprays herbicide-water sprays, often with a non-ionic surfactant added, aimed at the target plant foliage to cover all leaves to the point of run off. They are usually applied with a backpack sprayer and plants up to six feet tall can be treated with this equipment.
- Cut Surface Treatment
 - Stem Injection (including hack-and-squirt) herbicide mixtures or concentrates applied into downward incision cuts spaced around wood stems made by an ax, hatchet, machete, brush ax or tree injector. Injection is a selective method of controlling trees and shrubs, which are greater than 2 inches in diameter.
 - Cut Stump herbicide concentrate or mixtures applied to the outer circumference of freshly cut stumps or the entire top surface of cut stems. Cutting the woody stems is usually accomplished by chainsaw or brush saw, but may be accomplished by handsaws or other hand-held cutting equipment. Herbicide is applied with a backpack sprayer, spray bottle, wick applicator or paintbrush.
- Basal Applications
 - Full Basal Sprays herbicide-oil-penetrant mixtures sprayed or daubed onto the lower portion of woody stems of trees or shrubs. They are applied using a backpack sprayer or a wick applicator, and are effective in controlling woody stems up to 6 inches in diameter.
 - Modified Basal Sprays (streamline or thinline) herbicide-oilpenetrant mixtures sprayed onto the lower portion of woody stems of trees or shrubs with a diameter of 2 inches or less.
- The use of mechanical methods to treat the invasive plant species would be used in conjunction with the herbicide treatments. Examples would include, but are not limited to, using a chainsaw to cut stems for the cut stump treatment method or using brush saws or string trimmers to reduce infestation densities to improve herbicide uptake and effectiveness. Mowing and prescribe burning infestations will be used depending on species of plant, size and age of infestation and time of year the treatment will take place. In areas where non-native invasive species occur (i.e. kudzu, privet, etc.), long-term (3-5 years) measures such as herbicide applications, bulldozing, mowing, weed eating and prescribed fire may be needed for control and/or eradication of these plants.

• Pre-commercial Thinning:

 Pre-commercial thinning on approximately 40 acres of overstocked young pine stands. **Mitigation:** Appropriate standards and mitigation from the Revised Forest Land and Resource Management plan apply to this proposal. Specific standards which apply are referenced in the EA pages 19 & 45, and can be found in the project file. No additional mitigation is required.

Other Alternatives Considered

In addition to the proposed action, three other alternatives were considered in detail, and six alternatives were considered but eliminated from detailed study.

Alternatives Considered in Detail

Alternative 1 (No Action)

Under the No Action alternative, the proposed actions would not occur.

Alternative 3 (No Herbicide Alternative)

Implementation of this Alternative would restore approximately 796 acres of upland forestland to longleaf pine, commercially thins approximately 337 acres of upland pine and pre-commercially thin approximately 40 acres of upland pine sites over the next 5 years. No herbicides would be used for site preparation.

Invasive non-native vegetation will <u>not</u> be treated for control and/or eradication where it occurs with herbicides. Control will be mechanical such as mowing and the use of hand tools to cut, chop and grub out roots where feasible.

Alternative 4 (Thinning Only)

Implementation of this alternative would thin 450 acres over 2 years, to accomplish restoration within the longleaf pine ecosystem of the Tuskegee National Forest.

This alternative would be implemented in selected pine stands listed in the EA containing 80 square feet of basal area per acre and higher.

Residual basal area will vary from 40 to 60 square feet per acre. Mast producers 9 inches and greater will be protected for wildlife forage.

Herbicides will not be used in this alternative to control nonnative invasive plants.

Alternatives Considered but Eliminated from Detailed Study

Alternatives 5 through 10 were formulated to in direct response to specific comments received during scoping or the final comment period. They were not developed in detail because of one of the following:

- The concerns related to factors that were administrative in nature and did not inherently result in cause and effect relationships.
- Proposals represented methods of implementation and could not be shown to generate cause and effect thresholds that could be shown to be inherently different alternatives.
- Proposals may have been considered unreasonable in their cost, without offsetting public benefits or because they did not address the purpose and need for the project or result in the desired future conditions.

They do not meet the purpose and need for this action, achieve the objectives of the project area, or are not reasonable. More detailed descriptions of these alternatives, how they were developed and why they were not considered in detail can be found in the EA, Chapter 2, page 23.

Alternative 5 - Restore more acres

Over 3000 acres of pine stands on the Tuskegee National Forest have been identified as being off site. Of this, approximately 1700 have been inventoried at this time and approximately 1600 acres are classified as off site species. Alternative 5 recommends that all the stands inventoried, approximately 1600 acres, which were classified as off site would be restored this 5 year period. Herbicides would be used for the control and eradication of invasive nonnative species, and site prep along with mechanical treatments and prescribed burning.

Alternative 6 – Use of Specialized Equipment

This alternative responds to an issue concerning limiting timber harvest equipment to specialized equipment, specifically a cut-to-length harvest system on the basis that it would minimize impacts on soil productivity and water quality.

Alternative 7 - Ecosystem Restoration without Sale of Timber

In response to public comments, an alternative was developed which would allow for the restoration of the native diversity and species and improve forest health without conducting a timber sale. Restoring the native longleaf pine on sites now occupied by loblolly and slash pine requires that the overstory trees be felled to reduce loblolly and slash seeding and provide the sunlight necessary for longleaf seedling development. Reduction of southern pine beetle risk also involves the felling of trees.

Alternative 8 - Restoration using Stewardship Contracting

The type of legal instrument (contract) for accomplishing the work depends on many factors such as value, product emphasis, road needs, type of project and total volume. This is accomplished after the timber cruise is completed and the timber value has been appraised.

Alternative 9 – Road Closure and Obliteration Alternative

This alternative responds to an issue on the use of road closure and obliteration to protect water quality.

Alternative 10 - Restore fewer acres

Under this alternative, only 319 acres would be restored in this 5 year period. Stands chosen for this action are off-site and have a basal area (BA) less than 60 square feet per acre. This figure is typically the lower limit of well stock-stocked stands. The proposed stands range from 16 to 53 BA. Applying silvicultural standards for stocking, these stands are poorly stocked. Herbicides would be used to control/eradicate nonnative invasive species and site prep in conjunction with mechanical treatments. Roller drum chopping and prescribed burning are also used for site prep and for fuel reduction.

Alternative 2 (Proposed Action) with mitigation was selected for the following reasons:

- Alternative 2 best meets the need of the proposed action and addresses issues raised during scoping.
- Alternative 2 will remove 796 acres of off-site Loblolly Pine and begins the restoration of those areas to the historical Longleaf Pine ecosystem.
- Alternative 2 provides for thinning 337 acres of Loblolly pine stands to improve their health and reduce the chance that these off-site species will be susceptible to disease and insects.
- Alternative 2 provides the most opportunities of all alternatives considered in detail for improving wildlife habitat through creation of early successional habitat on 796 acres and more effective treatment of non-native invasive species.
- Alternative 2, by permitting the use of herbicides, would provide a wider range of site preparation treatments than other alternatives. This will give managers the best chance of permitting native species to revegetate the habitat, by controlling non-native invasive species.
- The actions included in this decision are consistent with the Revised Forest Plan for the National Forests in Alabama based on the EA disclosing that the selected action has been planned and will be implemented in accordance with all applicable standards the forest Plan.

Scoping and Public Involvement

The proposal was provided to the public and other agencies for comment during scoping in February 2004. A legal Notice was published in the newspaper of Record, *The Tuskegee News*, on February 26, 2004 inviting public participation in the process. In addition, as part of the public involvement process, the agency hosted a field trip March 11, 2004 and one individual attended. The comments received were used to develop issues that were then used to develop and analyze a reasonable range of alternatives.

An Environmental Assessment (EA) was prepared and made available to the public. A legal notice was published on January 20, 2005 in the newspaper of record, *The Tuskegee News*, on the availability of the EA and the opportunity to comment. During the comment period, three responses were received. Appendix D of the EA displays the public comments received and provides the Forest Service's response to those comments.

Following 40 CFR Section 1503.4, the ID team analyzed and carefully considered all public comments received during the review period. The ID team determined that there was one substantive comment.

Changes During Comment Period

Most of the comments received, were supportive in nature, and none of the comments resulted in a change to the preferred alternative. No additional alternatives, mitigation, or changes are required to this project as a result of the comments.

Findings Required by Other Laws and Regulations

It is my finding that actions in this decision comply with the requirements of the National Forest Management Act (NFMA) of 1976 and the National Forests in Alabama Revised Land and Resource Management Plan. Specifically:

The proposed action responds to the goals and objectives outlined in the RLRMP, and helps move the project area towards desired conditions (RLRMP, pages 4-24 through 4-25) as described in the plan. (EA Chapter 1, page 8)

A Biological Assessment, sent to the U.S. Fish and Wildlife Service December 21, 2004 for review and comment, was done to evaluate the Proposed Action potential effects to ten Federally-listed Proposed, Threatened, and Endangered species of terrestrial or aquatic animals, plants, or their designated Critical Habitats known or likely to occur within the influence of the project area. The BA determined that the proposed action is either "not likely to adversely affect" federally listed species or will have "no effect" on federally listed species. (EA Chapter 3, pages 61-74).

Heritage resource inventories of the proposed Area of Potential Effect (APE) were made, and consultation with the Alabama State Historic Preservation Office (SHPO) was conducted. The amount of cumulative effects to known heritage sites considered eligible for the National Register of Historic Places from all management activities should be slight as inventory, assessment, protection and mitigation measures would be implemented prior to the initiation of the land management activities. (EA Chapter 3, page 101)

A Road Analysis Plan is located in the project file. On the Tuskegee National Forest, the existing road system appears be adequate for this project (EA Chapter 3, page 96)

As required by Executive Order 12898, all federal actions must consider potentially disproportionate effects on minority or low-income communities. There is no evidence to believe that minority or low-income groups will be adversely or disproportionately affected by the alternatives that have been presented in this EA (EA, Page 108).

I have determined that the land on which harvesting has been proposed is suitable for timber production as described in 16 U. S. C. 1604(k).

1. The land is forested land capable of producing crops of industrial wood.

 Technology is available to harvest timber from the land without irreversible resource damage to soil productivity or watershed conditions.
The land that is regenerated can be adequately restocked within 5 years of final harvest.

4. The land is not withdrawn from timber production by act of congress, the Secretary of Agriculture or the Chief of the Forest Service.

5. The land has not been deemed inappropriate for timber production due to assignment to other resource use or considerations of cost efficiency.

I have determined that the actions:

- 1. Are best suited to the multiple use goals for the area;
- 2. Occur on lands where adequate reforestation can be assured;

3. Were chosen after consideration of the effects on residual trees and adjacent stands;

4. Were not chosen primarily because they gave the greatest dollar return of timber output;

5. Avoid impairment of site productivity and ensure soil and water resource coordination.

6. Provide the desired effects on all affected resources; and

7. Employ practical timber harvest techniques and transportation systems.

Based on the desired future conditions and the need to provide early successional habitat and maintain habitat diversity, I have determined that the clearcutting with reserve trees regeneration method for longleaf restoration is the optimum method (EA, Chapter 1 - Introduction, page 10).

Finding of No Significant Impacts.

I have determined that the proposed actions are not a major federal action, significantly affecting the quality of the human environment, based on the analysis in the EA and from past experience with similar forest management activities.

Context:

The physical and biological effects are limited to the areas where forest health and restoration activities will be implemented.

Intensity/Severity

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

Considering both beneficial and adverse impacts, there will be no significant effects to the environment (EA Chapter 3 Effects Analysis, pages 27-108)

(2) The degree to which the proposed action affects public health or safety.

There are no significant effects posed to public health and safety by this action (EA Chapter 3, Effects Analysis, pages 27-108).

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There are no significant effects on wetlands, floodplains, aquatic or terrestrial species (EA Chapter 3, Effects Analysis, pages 27-108).

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

Based on public participation, the effects on the quality of the human environment are not likely to be highly controversial. Effects disclosed in the Environmental Assessment are not highly controversial. Controversy here refers to extent or types of effects, not to the level of opposition. (EA, Chapter 1, Page 14 and Appendices C & D)

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no known significant effects on the human environment that are highly uncertain or involve unique or unknown risks. EA, Chapter 3, Effects Analysis, pages 27-108)

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

These actions do not set a precedent for other projects that may be implemented.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

There are no significant cumulative effects between this project and other projects implemented or planned on areas separated from the affected area of this project (EA Chapter 3, Effects Analysis, pages 27-108).

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

This proposal does not affect any properties on or eligible for listing for the National Register of Historic Places. It will not cause the loss or destruction of significant scientific, cultural, or historic resources. There are no effects to any cultural resources listed or eligible for inclusion in the National Register of Historic Places (EA, pages 100-102).

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

A Biological Assessment has been prepared to evaluate the potential affect on Threatened and Endangered species. The BA determined that the proposed action is either "not likely to adversely affect" federally listed species or will have "no effect" on federally listed species. (EA, pages 61-74).

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment. (40 CFR 1508.27)

The actions do not threaten a violation of federal, state or local law or requirements imposed for the protection of the environment. (EA, Chapter 1, Page 1)

Project Implementation and Appeal Opportunities

Pursuant to **36 CFR Part 215.13**, individuals and organizations who submitted substantive written or oral comments during the 30-day comment may appeal this decision. Only one substantive comment was received during the 30-day comment period (EA, Appendices C & D), and only that individual may appeal. Any written appeal, including attachments, must be postmarked or received within 45 days after the date this notice is published in *The Tuskegee News* (the paper of record). The Appeal shall be sent to National Forests in Alabama, ATTN: Appeals Deciding Officer, 2946 Chestnut Street, Montgomery, AL 36107-3010 Appeals may be faxed to (334)241-8111.

Hand-delivered appeals must be received within normal business hours of **8:00 a.m. to 4:30 p.m.** Appeals may also be mailed electronically in a common digital format, e.g., .rtf, .PDF, .txt, or .doc. Email appeals to: **appeals-southern-alabama@fs.fed.us**.

Appeals must meet content requirements of 36 CFR 215.14. For additional information concerning this decision, contact District Ranger, Tuskegee National Forest, 125 Forest Service Road 949, Tuskegee, Alabama, phone (334)727-2652.

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 days following the date of appeal disposition. (36 CFR 215.9)

Responsible Official

JORGE J. HERSEL, District Ranger