

## Decision Memo

Watergauge Woodland Restoration Project  
Chattahoochee-Oconee National Forest  
Chattooga River Ranger District  
Rabun County, Georgia

### ***1.DECISION***

I have decided to approve the proposal to create and maintain open pine / oak woodland habitat conditions within the “Watergauge Road” area, located on the Chattooga River Ranger District in Rabun County, GA. See attached project map (1).

Approximately 508 acres within the Watergauge road area will be mechanically treated to create woodland habitat conditions (see project file map). These areas were selected for mechanical woodland treatments for the following reasons: 1) woodlands are a desired habitat for several declining woodland obligate avian species such as the Prairie Warbler, Field Sparrow, Northern Bobwhite, Brown-headed Nuthatch and the Eastern Wood Pewee, 2) the landscape within the Watergauge area is one that is ecologically suitable for pine / oak woodland habitat, 3) the project area has a history of prescribed fire, which has already started to “move” the area toward the desired future condition of an open forest canopy and an established herbaceous layer 4) several species of “woodland” obligate or “dry” site plants have been found within the project area, and 5) the site is within a “demonstration area” on the district where several state, Federal and NGO partners are working to achieve mutual biodiversity goals, including the restoration of woodland conditions. Partners which are collaborating on this project include: The Nature Conservancy of GA, SC and NC, the GA DNR (Game, Non-game and State Parks) and the Georgia Plant Conservation Alliance (GPCA).

Woodlands will be created by thinning identified stands to achieve a tree canopy averaging between 40 – 66% of overall cover. Therefore, the number of trees retained in any given area in order to achieve the desired residual canopy cover will depend on the size (diameter at breast height) and species of trees selected for retention. In this project, the largest diameter shortleaf pine and oaks will be prioritized for retention and loblolly pine, Virginia pine, white pine, red maple and tulip poplar will be prioritized for removal. The following table (Table 1) contains more specific information relative to the stands proposed for mechanical woodland creation.

**Table 1.**

<b>Comp. / Stand</b>	<b>Age</b>	<b>Overstory Description</b>	<b>Acreage</b>
62 / 19	31	Planted to White Pine, some yellow pine and oak present	119
62 / 27	37	Planted to White Pine, some yellow pine and oak present	37
67 / 02	29	Planted to Shortleaf Pine, some oaks, mesophytic hardwoods and white pine also present	92
67 / 03	40	Planted to Shortleaf Pine, but mostly invaded with Virginia pine	10
67 / 05	27	Shortleaf Pine plantation	27
67 / 21	80	Mixed White Pine, Yellow Pine, Oaks and other hardwoods	31
67 / 24	80	Mixed White Pine, Yellow Pine, Oaks and other hardwoods	70
67 / 29	80	Mixed White Pine, Yellow Pine, Oaks and other hardwoods	58
67 / 30	80	Mixed White Pine, Yellow Pine,	31

		Oaks and other hardwoods	
67 / 36	17	Shortleaf Pine plantation	33
<b>Total =</b>			<b>508</b>

After thinning the above mentioned stands to the desired tree density, a 3-5 year prescribed fire rotation will be used to maintain the desired woodland vegetative structure and composition. In recent years, two prescribed burns have been conducted within the project area (see attached map). The existing burn unit boundary encompasses approximately 1,000 acres, and will be used for future burns in this project area. Although burning is effective in maintaining an open grass-forb layer by killing woody sprouts, it is not usually severe enough to remove the larger midstory trees and to open up the overstory canopy. Therefore, a combination of prescribed fire and thinning would be necessary to create and maintain the desired woodland habitat which is described in this project. Figure 1 illustrates an example of the desired future condition of the woodlands which would be created as a result of this project. This stand, which is located in White County, GA, was recently thinned to a woodland structure and followed up by a prescribed burn in 2008. A 3-5 year prescribed fire rotation is planned to continually maintain this open structure while eliminating woody sprouts and promoting herbaceous establishment. It is possible prescribed fire will continually be needed throughout the life of these stands in order to maintain the open woodland structure desired in this project (project-level vegetation monitoring will determine this).

Figure 1.



In addition to thinning and prescribed burning, the following activities may also be implemented within the project area, depending on stand conditions and the level of KV receipts generated from the removal of wood products cut during the mechanical woodland treatments. These activities include:

- 1). Non-native Invasive Plant Species Treatments (Decision Notice signed May 6, 2008)
- 2). Soil and Water Restoration Treatments (activity included in this Decision Memo)
- 3). Barricading illegal ATV trails (activity included in this Decision Memo)
- 4). Mountain bog enhancement via mechanical treatments on approximately 10 acres (activity included in this Decision Memo)
- 5). Aerial or hand seeding of the thinning units with a mixture of annual wheat or rye in order to establish a nurse crop while on-site natives are being established (activity included in this Decision Memo)

Several mitigation measures, described below, will be implemented to lessen the potential for adverse effects resulting from this project. This is not an all-inclusive list, but rather a list of several of the most important mitigation measures which are typically implemented as part of a prescribed burning and/or vegetation management project.

### ***Mitigation Measures***

#### **Mechanical Thinning:**

##### **❖ Soil and Water Quality**

Existing skid trails and old logging paths will be used to extract the timber from the treatment areas. The need for new skid trails will be minimal for this project

Water control structures necessary for the control of surface water movement resulting from skid trails or bladed control lines will be constructed within 30 days of completion of the activity (Standard FW-066, FW-205).

Re-vegetation of bare soil created by skid trails will be completed to a minimum of 85% coverage within the first growing season following the completion of project activity (FW-068, FW-197).

There will be no mechanical tree cutting within the 100 foot perennial and intermittent stream buffers, with exception of the cut and leave Mountain Bog work (concern of Georgia ForestWatch, December 2008).

##### **❖ Fisheries / Wildlife / Plants**

Avoid heavy equipment disturbance within the potential Mountain Bog safeguarding site (concern of Georgia ForestWatch, December 2008).

#### **Prescribed Burning:**

##### **❖ Soil and Water Quality**

Existing barriers (roads, streams, permanent fire lines) are utilized whenever possible to minimize fire line construction (concern of Georgia ForestWatch, December 2008).

Bladed lines are constructed as opposed to plowed lines in order to minimize soil resource damage. Handlines will be used in place of dozer blade lines where lines intersect with creeks.

To control fire intensity, prescribed burns are implemented under specific fuel and weather conditions. Burning is scheduled when the KBDI drought index is 450 or less, fine fuel moisture is between 7 and 15 percent, relative humidity is higher than 25 percent, air temperature is less than 95 degrees and the 20 foot wind speed is less than 18 mph (concern of Georgia ForestWatch, December 2008).

Construction of control lines within streamside zones is kept to a minimum. Fire within these zones is limited to low intensity backing or flanking fires that are not actively lit (concern of Georgia ForestWatch and Chattooga Conservancy, December 2008).

Water diversions or water “bars” will be installed, during construction, on all dozer blade lines exceeding 3 percent slope. Depending on slope percent, water bars will be placed from 30 to 250 feet apart. Water bars will be installed using Georgia Best Management Practices (*GABMP*), which are found on pages 27 and 37 of the BMP handbook.

After the burns are declared 'out', the dozer blade lines will be rehabilitated using a dozer blade to pull bladed debris back into the lines, which in turn will help speed up the recovery and decrease the visual impacts of the lines (concern of Georgia ForestWatch, December 2008).

All lines will be re-vegetated in the spring using a non-invasive grass mixture best suited to the area and beneficial to wildlife. (*BMP, p. 42*) (concern of Georgia ForestWatch, December 2008).

#### ❖ **Air Quality**

Ensure weather conditions for favorable smoke dispersal

Identify sensitive targets and design burn to mitigate smoke impacts

#### ❖ **Visual Resources**

Attempt to keep overstory crown scorch to a minimum, preferably at or below 10 percent.

Modify firing methods where appropriate (backing, flanking, spot firing versus head firing) to manage the intensity of the fire (concern of Georgia ForestWatch, December 2008).

Minimize fire impacts on streamside zones (riparian areas) and north facing slopes; allow fire to back into these areas (concern of Georgia ForestWatch, December 2008) with no active lighting.

#### ❖ **Fisheries / Wildlife**

Burn plans will be reviewed by the District Wildlife Biologist prior to implementation to ensure that all protective measures are in place and to discuss any new information that has surfaced between the planning and implementation stages.

Stream crossings – all BMP measures will be used to prevent siltation and erosion to protect aquatic habitat.

#### ❖ **Public Impacts**

Adhere to smoke management requirements regarding highways.

Perform public notification per the burn plan.

Provide information to residents that suffer from breathing ailments, if they are identified.

Timing and scope of burns will be carefully planned to minimize impacts on forest visitors.

## **2. PURPOSE AND NEED**

This project provides an opportunity to work toward the desired future condition of the Forest as described in the Chattahoochee-Oconee National Forests Land and Resource Management Plan, as amended (LRMP) and its Final Environmental Impact Statement (FEIS). The primary purpose for this project is to improve habitat conditions for the above mentioned plants and animals by creating and maintaining a mosaic of pine / oak “woodland” conditions. For the purposes of this project, woodlands are defined as follows: Open stands of trees at least 6 m (20 feet) tall, with crowns often not interlocking; tree canopy discontinuous (often clumped), averaging between 66 and 40% overall cover (at 40% the average diameter of a tree crown equals the average distance between crowns); shrub/midstory layer often poorly developed or present only in gaps in the canopy.

(Source: <http://www.natureserve.org/explorer>).

Woodlands provide important habitat for a variety of plants and animals, including “rare” or “declining” species. Historically, lightning fires and Native American burning were primarily responsible for creating and maintaining woodland conditions; however, these woodlands are becoming increasingly rare due primarily to land use changes and fire suppression. Currently, all of the stands proposed for treatment in this project have been affected by land use changes and/or past fire suppression activities. As a result, these stands are currently either characterized by off-site, young pine trees or by a dense closed canopy of pines and oaks, which includes off-site mesophytic hardwoods and white pine encroachment, a well developed woody midstory layer and a sparse herbaceous layer. These conditions are not suitable for the majority of woodland obligate plants and animals native to this area. Therefore, the purpose of this project is to improve habitat for several declining bird species and/or species of concern, such as the brown-headed nuthatch, eastern wood pewee, field sparrow, prairie warbler and northern bobwhite. In addition, an entire suite of sun-loving, native grasses and forbs will also be enhanced as a result of this project. Examples of important (from an ecological perspective) native plants which would benefit from this project include: lowbush blueberry, blazing star, hill cane, little bluestem, indigo bush and Indian grass.

All of the stands proposed for woodland creation and maintenance are either within Forest Plan Management Prescription 9.H – Management, Maintenance and Restoration of Plant Associations to their Ecological Potential (400 ac. or 40% of project area) or prescription 8.A.1 – Mix of Successional Forest Habitats. However, Forest Plan Management Prescription 11 – Riparian Corridors – is also embedded within both prescriptions, and will not be treated mechanically as part of this project. This project would meet the purpose of all prescriptions by restoring historical plant associations and their ecological dynamics to ecologically appropriate locations, while also protecting and maintaining the integrity of the riparian corridor.

This project will help meet several Forest Plan goals and objectives, including Goal 2 to “provide a diversity of habitat for the full range of native and other desired species”, Goal 3 to “enhance, restore, manage and create habitats as required for wildlife and plant communities, including disturbance-dependent forest types”, Goal 7 to “manage forest ecosystems to maintain or restore composition, structure and function within desired ranges of variability” and Goal 8 to “contribute to maintenance or restoration of native tree species whose role in forest ecosystems: (a) has been reduced by past land use, or (b) is threatened by insects and disease, fire exclusion, forest succession, or other factors.

## **3. REASONS FOR CATEGORICALLY EXCLUDING THE DECISION**

I have determined that this action falls within Category #6 (“Timber stand and/or wildlife habitat improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction.”) of Forest Service Handbook (FSH) 1909.15, Section 31.2 for categorical exclusions. The citation for this category is 36 CFR 220.6(e)(6). These actions have been determined by the Chief of the Forest Service to have no significant effect on the quality of the human environment, either individually or cumulatively, and are

therefore categorically excluded from documentation in an environmental impact statement (EIS) or an environmental assessment (EA). This project decision will not require the construction of new roads nor the use of herbicides.

#### 4. FINDING OF NO EXTRAORDINARY CIRCUMSTANCES

Based on interdisciplinary team findings, I have determined that no extraordinary circumstances exist that could cause the actions involved with timber thinning or prescribed burning to have significant effects. The following were considered in the decision making process:

- This project will have no effect on Federally-listed plant or animal species and no impact on the Regional Forester’s Sensitive species. The following table was taken from the Biological Evaluation (BE) prepared by the District Wildlife Biologist. This table contains a summary of the “determination of effects” for those Proposed, Endangered, Threatened and Sensitive (PETS) species which are known to occur or have potential to occur in the project area. The complete BE with further information is located in the project file.

Common Name	Scientific Name	Species Status P/E/T/S	Determination of Effect
Rafineque’s Big-eared Bat	<i>Corynorhinus rafinesquii</i>	S	No Impact
Eastern Small-footed Myotis	<i>Myotis leibii</i>	S	No Impact
Diana Fritillary Butterfly	<i>Speyeria diana</i>	S	No Impact
Margarita River Skimmer	<i>Macromia margarita</i>	S	No Impact
Appalachian Snaketail	<i>Ophiogomphus incurvatus</i>	S	No Impact
Edmunds Snaketail	<i>Ophiogomphus edundo</i>	S	No Impact
Georgia Beloneurian Stonefly	<i>Beloneuria Georgiana</i>	S	No Impact

- This action complies with the National Historic Preservation Act. The Historic Preservation Division of the Georgia Department of Natural Resources has reviewed the archeological report prepared for this project and has concurred with the findings of the report, noting that archeological sites will be protected and not adversely affected as a result of this project. The compliance letter is located in the project file.
- This action will not affect wetlands, floodplains, steep slopes, erosive soils, or municipal watersheds. Several perennial streams are the only aquatic communities located within the project area. These areas will be protected by the mitigation measures discussed above in order to avoid effects to these areas.
- This project does not contain any congressionally designated areas, such as wilderness, wilderness study areas, or National Recreation Areas. Additionally, the areas are not located within a Research Natural Area or Inventoried Roadless Area.
- There are no American Indian or Alaska Native religious or cultural sites within the vicinity of the project area.

## **5. FINDINGS REQUIRED BY OTHER LAWS**

As required by the National Forest Management Act of 1976, I have determined that this action is consistent with the Chattahoochee-Oconee Land and Resource Management Plan (Forest Plan), as amended. It adheres to applicable standards, guidelines, and monitoring requirements in the Forest Plan, which includes the soil and water protection mitigation measures discussed above.

This project complies with the seven requirements of 36 CFR 219.27(b) by following the Forest-wide standards and guidelines as mentioned above. Specifically:

- ❑ This project is best suited to the multiple-use goals established for these areas. This involved an analysis of impacts in relation to those expected by the Forest Plan.
- ❑ This action was chosen after considering potential effects on residual trees, adjacent stands, and T&E species.
- ❑ This project will avoid permanent impairment of site productivity and ensure conservation of soil and water resources.
- ❑ This project will provide desired effects on wildlife, fuel loadings, water, fish, tree regeneration, forage, recreation, visual quality, and other resources.

## **6. PUBLIC INVOLVEMENT**

Scoping both internally and externally has not indicated that extraordinary circumstances exist that might cause this action to have significant effects on the environment (*FSH 1909.15, Section 30.3-3*).

Internal scoping began for this project in early spring of 2008. In addition, and prior to external scoping, a field trip to the project area was hosted on April 11, 2008. Meeting attendees included members of Georgia Forest Watch (GFW) as well as Georgia Department of Natural Resources, Non-game Conservation Section (DNR Non-Game) biologists. A follow-up meeting with The Nature Conservancy of Georgia and additional DNR Non-Game biologists was also held in the early fall of 2008. In addition, a recent Fire Learning Network field trip was hosted at the site on May 20, 2009, where approximately 60 interagency partners visited the site and provided feedback regarding the proposed action.

On November 3rd, 2008 public scoping was initiated by mailing out scoping letters to individuals, organizations or agencies who have indicated an interest in projects on this district. This initial scoping included a description of the proposed action and a detailed map showing the areas considered for burning and mechanical thinning treatments. In addition, "Requests for Comments" were also printed in the Northeast Georgian and the Clayton Tribune on November 4<sup>th</sup> and 6<sup>th</sup>, respectively.

Eight (8) responses were received from the initial scoping letter. Seven (7) letters supported the project and one (1) letter outlined some potential issues with the proposal.

The following agencies and individuals submitted "support" letters for this project:

- Buzz Williams, Director, Chattooga Conservancy

