

## Decision Memo

Georgia Mountain Orchard Woodland Restoration Project  
 Chattahoochee-Oconee National Forest  
 Chattooga River Ranger District  
 Habersham and Stephens Counties, Georgia

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

I have decided to approve the proposal to create and maintain open pine / oak woodland habitat conditions within and adjacent to an area known as the Georgia Mountain Orchard, located on the Chattooga River Ranger District in Habersham and Stephens Counties, GA. See project map.

Approximately 294 acres (7 areas) within the orchard 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 woodland obligate plant and animal species such as the rare Bachman’s Sparrow (the GA Mtn. Orchard area currently supports the northern most record of the rare Bachman’s Sparrow in the state), 2) the landscape within the orchard area is one that is ecologically suitable for pine / oak woodland habitat, 3) the site has a long history of prescribed fire, which makes it realistic to assume that prescribed fire will be available for use in the future to maintain the woodland conditions once they are created and 4) the site is within an “emphasis area” on the district where state, Federal and NGO partners are working hard to achieve mutual biodiversity goals, including the restoration of woodland conditions.

**Note:** The original scoping document identified approximately 227 acres which would be suitable for mechanical thinning treatments. Since that time, on-the-ground analysis and treatment unit layout has increased the mechanical treatment area size to approximately 294 acres. The increase in treatment area size is not a result of adding new stands (stands not identified during scoping) to the project, but rather a result of adjusting treatment unit boundaries to protect water resources, provide environmentally sound access routes for equipment and to maximize wildlife benefit.

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, 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.**

<u>COMPARTMENT/ STAND</u>	<u>FOREST TYPE</u>	<u>CONDITION CLASS</u>	<u>SITE INDEX</u>	<u>ESTIMATED ACRES</u>
209/02 (sale unit 1)	32	12	70	20
209/05 (sale unit 1)	12	10	70	16
209/07 (sale unit 1)	53	8	70	4
216/10 (sale unit 1)	32	12	70	8
216/15 (sale unit 1)	32	12	90	27
Forested areas adjacent to w/l openings, not in cisc database (sale unit 1)	Some hardwood/pine, but primarily young lob plantations	*****	*****	111

<b>SALE UNIT 1 Total</b>	*****	*****	*****	<b>186</b>
216/06 (sale unit 2)	31	11	80	8
216/02 (sale unit 3)	31	11	80	29
216/12 (sale unit 4)	31	11	80	24
209/05 (sale unit 5)	12	10	70	11
209/12 (sale unit 6)	31	11	80	9
209/11 (sale unit 7)	31	11	80	27
<b>SALE UNIT 2 – 7 Total</b>	*****	*****	*****	<b>108</b>

After woodlands have been created, a 3-5 year prescribed fire rotation will be used to maintain the desired woodland vegetative structure and composition. Since acquisition, two prescribed burn units have encompassed either a portion or all of the stands proposed for woodland creation in the orchard area (see map 1). One burn unit is approximately 1850 acres in size and was burned for the first time in 1999. This burn unit was named the Comp. 209 / 216 Rx Burn. The second burn unit is approximately 190 acres in size and has been burned every 3 -5 years since the orchard was originally acquired, with the most recent burn completed in 2005. This burn unit was named the GA Mountain Orchard Burn. Although burning is effective in maintaining an open grass-forb layer by killing woody sprouts, it is not usually severe enough to remove the midstory and open up the overstory canopy. Therefore, a combination of prescribed fire and thinning will be necessary to create and maintain the desired woodland habitat which is described above. Figure 1 illustrates the desired future “structural” condition of the woodlands which would be created as a result of this proposal. This stand, which is located near the GA Mountain Orchard, was recently thinned to a woodland structure and followed up by a prescribed burn in 2007 and 2008. A continued 3-5 year prescribed fire rotation is planned to continually maintain this open structure while eliminating woody sprouts and promoting herbaceous establishment.

Figure 1.



This decision will cover the prescribed burning and mechanical treatments discussed above. In addition, some seeding, either aerially or by hand, may be used to provide a nurse crop while natives are being established or to stabilize soil where needed. All seeding projects will be closely monitored to avoid the accidental introduction of non-native invasive species.

In addition, 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**

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).

Within the 100 foot SMZ (for perennial trout streams), leave an average of 50 square feet of basal area per acre evenly distributed throughout the zone to provide shade (Georgia BMPs, Section 2.1.2.1, Option B, page 11).

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

Avoid disturbance to the suspected Bachman's Sparrow nesting habitat (within a shrubby wildlife opening.) This area will be identified on-the-ground by the district Wildlife Biologist and will be protected from logging activities.

Establish a no fell / no equipment area around the rare plant occurrence in Compartment 209 Stand 12. This area will be identified on-the-ground by the district Wildlife Biologist and will be protected from logging activities.

#### **Prescribed Burning:**

##### **❖ Soil and Water Quality**

Existing barriers (roads, streams, permanent fire lines) are utilized whenever possible to minimize fire line construction.

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, when fine fuel moisture is between 7 and 15 percent, when relative humidity is higher than 25 percent, when air temperature is less than 95 degrees and the 20 foot wind speed is less than 18 mph.

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.

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.

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*).

#### ❖ **Air Quality**

Ensure weather conditions for favorable smoke dispersal

Identify sensitive targets

Follow the approved burn plan

#### ❖ **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.

Minimize fire impacts on streamside zones (riparian areas) and north facing slopes; allow fire to back into these areas.

#### ❖ **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.

The District FMO and Wildlife Biologist will coordinate with the Georgia DNR Wildlife Resource Division to ensure project activities do not interfere with managed hunts on the Lake Russell WMA.

Stream crossing – all measures will be used to prevent siltation and erosion to protect fish habitat.

#### ❖ **Public Impacts**

Adhere to smoke management requirements regarding highways.

Perform public notifications per the burn plan.

Provide information to residents that suffer from breathing ailments.

Timing and scope of burns should 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 of this project is to take advantage of the existing early-successional habitat conditions by creating and maintaining an additional mosaic of pine / oak “woodland” conditions adjacent to the above mentioned early successional habitats. For the purposes of this proposal, 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 layer often poorly developed or present only in gaps in the canopy. (Source: <http://www.natureserve.org/explorer>).

Piedmont 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. One declining wildlife species in particular which would benefit from this proposal is the Bachman’s sparrow. The orchard hosts the northern most breeding record of this species in GA. The primary management concern for this declining species is the provision of adequate habitat, which is ephemeral and often declines as a result of natural vegetation succession. Bachman’s sparrows were historically found in mature to old growth southern pine woodlands and subjected to frequent growing-season fires; a fugitive species, breeding wherever fires created suitable conditions. This species requires a well-developed grass and forb layer with limited shrub and hardwood midstory components (NatureServe 2006.) In addition to providing habitat for the Bachman’s sparrow, this proposal would also provide suitable habitat for a variety of other game and non-game wildlife species, as well as, providing habitat for a variety of desired native and/or “rare” herbaceous species.

The majority of treatment units (all units except unit 5) included in this project are within Forest Plan Management Prescription 9.H – Management, Maintenance and Restoration of Plant Associations to their Ecological Potential. However, Management Prescription 11 – Riparian Corridors – is also embedded (in smaller amounts) within several of these units when an intermittent or perennial stream is crosses the unit. This project complies with the Forest Plan desired conditions and standards related to these prescriptions and would further meet the purpose of these prescriptions by restoring historical plant associations and their ecological dynamics to ecologically appropriate locations. The area within and immediately adjacent to unit 5 is within Forest Plan Management Prescription 4.H – Forest Designated Outstandingly Remarkable Streams (Middle Fork of Broad River). This project also complies with the Forest Plan desired condition and standards related to this prescription, since this project includes efforts to restore native vegetative communities.

This project would also meet several general goals and objectives of the Forest Plan which include 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 15 to “.....avoid the necessity for federal listing of other species under the Endangered Species Act (i.e., Bachman’s Sparrow)”.

## **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. 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 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
Bachman’s Sparrow	<i>Aimophila aestivalis</i>	S	No Impact
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
Whorled Horsebalm	<i>Collinsonia verticillata</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 edmundo</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.
- This action will not affect wetlands, floodplains, steep slopes, erosive soils, or municipal watersheds. Several perennial streams and the north east shoreline of Duckett Lake 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 2007. On July 31, 2007 public scoping was initiated by mailing out scoping letters to interested 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.

Three (3) responses were received from the initial scoping letter. Two (2) letters supported the project with no concerns and one (1) letter was indifferent. The list of people receiving the scoping letter is located in the project file.

## **7. ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES**

The official public comment period for this project began on August 21, 2007 with an official “request for comments” letter which was published in *The Northeast Georgian* newspaper.

Since there were no substantive public comments expressing concern or only supportive comments received in

relation to this project, this decision is not subject to appeal pursuant to 36 CFR 215.12 (e) (1).

**8. IMPLEMENTATION**

Implementation of this decision may begin immediately.

**9. CONTACT PERSON**

For further information concerning this decision contact David Jensen by phone at (706) 782-3320 Ext 103, by letter 809 Highway 441 South Clayton, Ga. 30525, or by e-mail at [dwjensen@fs.fed.us](mailto:dwjensen@fs.fed.us).

**10. SIGNATURE AND DATE OF RESPONSIBLE OFFICIAL**

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David W. Jensen  
Responsible Official  
District Ranger

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Date

