

BIOLOGICAL EVALUATION

Proposed, Endangered, Threatened, Sensitive, and Locally Rare Species

Manual Release of Shortleaf Pine Trees by Hand tools Winston County Bankhead National Forest

Summary

This project will conduct a release treatment of shortleaf pine trees which were recently planted. These sites are located at three locations across Winston County. Prior to this project, the stands have been site prepared by drum chopping and burning followed by tree planting. All sites were surveyed for biological resources several years ago, prior to site prep work and planting. This evaluation addresses the potential for impacts to selected biological resources from this specific project.

Based upon the findings of this evaluation, there will be no impacts to threatened, endangered, sensitive and locally rare species as a result of this project.

Additional consultation and concurrence with the U.S. Fish and Wildlife Service is not required.

Area Description

Bankhead National Forest is located within the northwest corner of Alabama and lies within Lawrence, Winston and Franklin counties. It is comprised of approximately 182,000 acres of forestland. The forest cover varies in both cover type and age class but is mostly a mixture of mature hardwoods and pine.

The sites to be treated are (see map attachment) located in three general locations in the south-central portion on the Bankhead National Forest, in Winston County, Alabama. The locations included in this project are in:

Site Name / Acreage	FS Management Compartment	Legal Description
Grindstone Unit – 14 acres	Compartment 125 Stand 70	Section - 36 / Township 9 South / Range 8 West
Brushy Unit – 110 acres	Compartment 21 Stand 1	Sections – 9,10 / Township 9 South / Range 7 West
Inmanfield Unit – 46 acres	Compartment 132 Stands 5,6,7,8, 15	Sections 19,24,27,30,36 Township 9 South / Range 6 & 7 West

Project Description

A biological evaluation is a documented review of programs or activities to determine the effect on threatened, endangered, proposed or sensitive species and to determine their viability.

Field surveys were conducted as part of the pre-project analysis on all of these areas. Several species have been added to the protected species listing since the original surveys. None of the habitat for any of these recently included species is found on the areas to be treated.

The areas to be treated were reviewed and no plants or animals which are on the current listing of threatened or endangered species, Forest Service designated “sensitive” species or “locally rare” were

found to occur on these areas. The BNF district office keeps current records of locations of known threatened, endangered sensitive and locally rare species of plants and animals throughout the area, which were reviewed as part of this evaluation.

The project as planned will use hand tools to mechanically cut existing shrubs and small trees and will not cause any ground disturbance. Prior to this project, these areas were site prepared prior to planting with a drum chopper, so the vegetation on the site is primarily early succession species such as root sprouts, shrubs and herbs.

The project will treat an area immediately surrounding the existing shortleaf pine seedlings. The treatment area will primarily reduce tree and shrub competition from the planted shortleaf pine. A stocking rate of 400 to 500 trees per acre will be the goal of the project, with shortleaf pine being the primary leave tree. Other species of hardwood will be retained in the situation where no shortleaf pine is surviving. The work will be accomplished with hand held equipment such as chainsaws, brush cutters, machetes, loppers or any similar tools. No ground disturbing equipment will be utilized to accomplish this project. Additional work activity such as road construction or use of ground disturbing equipment is not required.

The areas surveyed for this evaluation did not contain glades, rock outcrops, aquatic areas or wetlands, which are habitats where protected, threatened, endangered or sensitive plant species are typically found. No riparian areas, wetlands or streambeds will be disturbed.

See next page for a table listing Federally listed species and the finding for each.

**Tabular Listing of Determination of Effect
For Federally Listed Species of the Bankhead National Forest**

Scientific Name	Common Name	Status	Finding
<i>Myotis grisescens</i>	Gray Bat	E	No Effect
<i>Myotis sodalis</i>	Indiana bat	E	No Effect
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No Effect
<i>Sternotherus depressus</i>	Flattened musk turtle	T	No Effect
<i>Epioblasma brevidens</i>	Cumberlandian combshell	E	No Effect
<i>Epioblasma metastriata</i>	Upland combshell	E	No Effect
<i>Epioblasma turgidula</i>	Turgid blossom pearly mussel	E	No Effect
<i>Lampsilis altilis</i>	Fine-lined pocketbook	E	No Effect
<i>Lampsilis perovalis</i>	Orange-nacre mucket	T	No Effect/No Adverse Modification
<i>Medionidus acutissimus</i>	Alabama moccasinshell	T	No Effect/No Adverse Modification
<i>Medionidus parvulus</i>	Coosa moccasinshell	E	No Effect/No Adverse Modification
<i>Pleurobema furvum</i>	Dark pigtoe	E	No Effect/No Adverse Modification
<i>Pleurobema perovatum</i>	Ovate clubshell	E	No Effect/No adverse Modification
<i>Pleurobema plenum</i>	Rough pigtoe	E	No Effect/No Adverse Modification
<i>Ptychobranthus greeni</i>	Triangular kidneyshell	E	No Effect/No adverse Modification
<i>Lampsilis orbiculata</i> (<i>L. abrupta</i>)	Pink mucket pearly mussel	E	No Effect
<i>Dalea foliosa</i>	Leafy prairie clover	E	No Effect
<i>Lesquerella lyrata</i>	Lyrate bladder-pod	T	No Effect
<i>Marshallia mohrii</i>	Mohr's Barbara's Buttons	T	No Effect
<i>Sagittaria secundifolia</i>	Kral's water-plantain	T	No Effect
<i>Thelypteris pilosa var al.</i>	Alabama streak-sorus fern	T	No Effect
<i>Xyris tennesseensis</i>	Tennessee yellow-eyed grass	E	No Effect
<i>Apios priceana</i>	Price's Potato Bean	T	No Effect

All currently listed threatened, endangered, or candidate species were considered during this evaluation. Some of the species are not known to occur on the area to be treated within Bankhead National Forest at the present time but potential habitat was assessed for effects.

Determination for Threatened and Endangered Species:

Due to the nature of the project and the fact that there will be no ground disturbance, there is “no effect” anticipated to threatened or endangered species of plants or animals. With regard to designated critical habitats for Federally listed mussels, this project will not jeopardize the continued existence of the species or destroy or adversely modify critical habitat.

Forest Service Designated Sensitive Species

All currently listed sensitive species were considered during this evaluation. Some of the species are not known to occur on the area to be treated within Bankhead National Forest at the present time but potential habitat was assessed for effects.

Forest Service Designated Sensitive Species

Scientific Name	Common Name	Status ¹	Finding
<i>Aesculus parviflora</i>	Small flowered buckeye	S	No impact
<i>Astragalus tennesseensis</i>	Tennessee Milkvetch	S	No impact
<i>Aureolaria patula</i>	Spreading yellow false foxglove	S	No impact
<i>Carex brysonii</i>	Bryson's sedge	S	No impact
<i>Delphinium alabamicum</i>	Alabama larkspur	S	No impact
<i>Diervilla rivularis</i>	Riverbank bush-honeysuckle	S	No impact
<i>Hymenophyllum tayloriae</i>	Gorge filmy fern	S	No impact
<i>Jamesianthus alabamensis</i>	Alabama jamesianthus	S	No impact
<i>Juglans cinerea</i>	Butternut	S	No impact
<i>Leavenworthia alabamica</i> <i>var.alabamica</i>	Alabama Gladecress	S	No impact
<i>Leavenworthia crassa</i>	Fleshyfruit Gladecress	C&S	No impact
<i>Lesquerella densipila</i>	Duck River Bladderpod	S	No impact
<i>Monotropsis odorata</i>	Sweet pinesap	S	No impact
<i>Asplenium x ebenoides</i>	Scott's Spleenwort	S	No impact
<i>Marshallia trinervia</i>	Broadleaf Barbara's buttons	S	No impact
<i>Minuartia alabamensis</i>	Alabama Sandwort	S	No impact
<i>Neviusia alabamensis</i>	Alabama snow-wreath	S	No impact
<i>Platanthera intergrilabia</i>	White fringeless orchid	C&S	No impact
<i>Polymnia laevigata</i>	Tennessee Leafcup	S	No impact
<i>Robinia viscosa</i>	Clammy Locust	S	No impact
<i>Rudbeckia triloba</i> <i>var pinnatiloba</i>	Pinnate-lobed Black-eyed Susan	S	No impact
<i>Scutellaria alabamensis</i>	Alabama skullcap	S	No impact
<i>Sedum nevii</i>	Nevius' stonecrop	S	No impact
<i>Silene ovata</i>	Blue Ridge catchfly	S	No impact
<i>Talinum calcaricum</i>	Limestone Fameflower	S	No impact
<i>Talinum mengesii</i>	Menge's fameflower	S	No impact
<i>Thalictrum mirabile</i>	Little mountain meadow rue	S	No impact
<i>Trillium lancifolium</i>	Lanceleaf Trillium	S	No impact
<i>Trillium simile</i>	Jeweled Trillium	S	No impact
<i>Speyeria diana</i>	Diana Fritillary	S	No impact
<i>Corynorhinus rafinesquii</i>	Rafinesque's Big-eared bat	S	No impact
<i>Cheilolejeunea evansii</i>	A liverwort	S	No impact
<i>Aneura maxima</i>	A liverwort	S	No impact
<i>Pellia X appalachiana</i>	A liverwort	S	No impact
<i>Nardia lescurii</i>	A liverwort	S	No impact

<i>Sensitive Species</i>				
Scientific Name	Common Name	Status ¹	Finding	
<i>Hydroptila paralatosa</i>	A caddisfly	S	No impact	
<i>Plagiochila echinata</i>	A liverwort	S	No impact	
<i>Radula sullivantii</i>	A liverwort	S	No impact	
<i>Rhyacophila carolae</i>	A caddisfly	S	No impact	
<i>Elliptio arca</i>	Alabama spike	S	No impact	
<i>Obovaria jacksoniana</i>	Southern Hickorynut	S	No impact	
<i>Obovaria unicolor</i>	Alabama Hickorynut	S	No impact	
<i>Strophitus subvexus</i>	Southern creekmussel	S	No impact	
<i>Villosa nebulosa</i>	Alabama rainbow	S	No impact	
<i>Etheostoma bellator</i>	Warrior darter	S	No impact	
<i>Etheostoma douglasi</i>	Tuskaloosa darter	S	No impact	
<i>Etheostoma phytophyllum</i>	Rush darter	S	No impact	
<i>Etheostoma tuscumbia</i>	Tuscumbia darter	S	No impact	
<i>Percina sp.cf.macrocephala</i>	Longhead darter (Warrior Brinled Darter)	S	No impact	
<i>Necturus alabamensis</i>	Black Warrior waterdog	S	No impact	

¹S = sensitive; C = candidate for Federal listing

Field reviews and literature reviews were conducted on each site for the noted Sensitive species. None were found within the treatment area by current or past surveys. The project will only use hand tools to conduct the treatment and no ground disturbance will occur. Based upon the fact that these species are not found on the treated areas and the fact that the project will not result in ground disturbance, no disturbance or the species or their habitats will occur from this project.

Determination of Effects for Sensitive Species:

The proposed activity will have “no impact” on the species of plants or animals, which are listed as Sensitive Species as per the Regional Forester’s List.

Locally Rare Species

Consideration of other species, which are considered locally rare by the Alabama Natural Heritage Program of The Nature Conservancy and the Forest Service. While emphasis should be given to ensuring that large populations are not eliminated from any National Forest, impacts to individuals or parts of populations will probably not lead to any trend to federal listing or loss of viability.

A list of locally rare species found on the Bankhead National Forest follows:

Forest Service Locally Rare Species

Scientific Name	Common Name	Status¹
Terrestrial Species		
<i>Aplectrum hyemale</i>	Puttyroot	LR
<i>Botrychium jenmanii</i>	Alabama Grapefern	LR
<i>Botrychium lunarioides</i>	Winter Grapefern	LR
<i>Camassia scilloides</i>	Wild hyacinth	LR
<i>Cypripedium acaule</i>	Pink lady's slippers	LR
<i>Cypripedium pubescens</i>	Yellow lady's slippers	LR
<i>Dalea carnea var gracilis</i>	Three-corner prairie clover	LR
<i>Dicentra cucullaria</i>	Dutchman's breeches	LR
<i>Dryopteris goldiana</i>	Goldie's fern	LR
<i>Erythronium albidum</i>	White Trout Lily	LR
<i>Erythronium umbilicatum ssp umbilicatum</i>	Yellow Trout Lily	LR
<i>Euonymus atropurpurea</i>	Wahoo	LR
<i>Huechera parviflora var puberula</i>	Little-leaved alumroot	LR
<i>Huperzia porphylla</i>	Rock clubmoss	LR
<i>Hydrastis canadensis</i>	Goldenseal	LR
<i>Isotria verticillata</i>	Large whorled pogonia	LR
<i>Jeffersonia diphylla</i>	Twinleaf	LR
<i>Liatris microcephala</i>	Small-head gayfeather	LR
<i>Monotropa hypopithys</i>	Pinesap	LR
<i>Nestronia umbellula</i>	Nestronia	LR
<i>Pachysandra procumbens</i>	Allegheny Spurge	LR
<i>Panax quinquefolia</i>	Ginseng	LR
<i>Parnassia asarifolia</i>	Grass-of-Parnassus	LR
<i>Schoenolirion croceum</i>	Sunnybells	LR
<i>Silene caroliniana spp wherryi</i>	Wherry's Catchfly	LR
<i>Silene regia</i>	Royal Catchfly	LR
<i>Silene rotundifolia</i>	Round leaved firepink	LR
<i>Stewartia malacodendron</i>	Silky Camelia	LR
<i>Stewartia ovata</i>	Mountain Camelia	LR
<i>Swertia caroliniensis</i>	Columbo	LR
<i>Trichomanes intricatum</i>	Weft fern	LR
<i>Trichomanes petersii</i>	Dwarf bristle fern	LR
<i>Trillium flexipes</i>	Bent Trillium	LR
<i>Trillium recurvatum</i>	Prairie Trillium	LR
<i>Trillium sessile</i>	Toadshade Trillium	LR

Scientific Name	Common Name	Status¹
<i>Aneides aeneus</i>	Green salamander	LR
<i>Desmognathus aeneus</i>	Seepage Salamander	LR
Aquatic Species		
<i>Elliptio arctat</i>	Delicate spike	LR
<i>Etheostoma sp. cf. zonistium</i>	Blueface darter	LR
<i>Etheostoma zonistium</i>	Bandfin darter	LR
<i>Hemitrema flamma</i>	Flame chub	LR
<i>Macroclemys temminckii</i>	Alligator Snapping Turtle	LR

¹LR = locally rare

All currently listed locally rare species were considered during this evaluation. Some of the species are not known to occur on the area to be treated within Bankhead National Forest at the present time but potential habitat was assessed for effects. None of these species nor their habitats were found during site surveys of the sites. Thus there could be no impact to them from the project.

Determination of effects upon locally rare species:

No locally rare species were found within the project areas, thus the proposed project will have “no impact” and thus not lead to any trend to federal listing or loss of viability.

Reviews of data and previous surveys conducted by Tom Counts.

Biological Evaluation completed by: _____

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