

DECISION MEMO

Allen Branch Site Preparation Prescribed Burn

USDA Forest Service
Cherokee National Forest
Nolichucky/Unaka Ranger District
Cocke County, Tennessee

Decision

I have decided to prescribe burn approximately 100 acres on the Nolichucky/Unaka Ranger District. The Allen Branch Site Preparation prescribed burn is approximately five miles northeast of Del Rio, Tennessee, at Allen Branch Pond. A complete map is in the project file.

The primary need for the prescribed burn is site preparation for natural regeneration and/or American Chestnut restoration. Long-term beneficial effects include restoring fire dependent and associated communities, improving wildlife habitat and reducing fuel buildup. If post-burn monitoring determines that these objectives were not fully met, follow-up burns will be implemented to achieve all objectives. This burn will be implemented during the dormant season.

An individual burning plan will be prepared and approved prior to project implementation. The burn will be performed under conditions specified in the Prescribed Burning Plan. The plans are prepared by trained resource specialists and approved by the District Ranger. Components of this plan include a description of the treatment area, the burn objectives, weather and fuel moisture parameters, and resource coordination requirements. Coordination requirements include provisions for public and worker safety; burn day notification of appropriate agencies and persons; smoke management guidelines to ensure compliance with air quality regulations and to maintain acceptable visibility in smoke-sensitive areas; fireline placement; specific firing patterns; ignition methods, mop-up and patrol procedures. An immediate post-burn evaluation will compare treatment results with plan objectives.

Approximately 550 feet of hand-constructed fireline will be required. All other control lines will utilize Forest Service Roads #209 and #5104, and previously constructed skid trails. This prescribed burn will use primarily backing and flanking fire techniques. Portions of the prescribed burn areas are not expected to burn due to vegetation type and high fuel moisture. North and east aspects and coves do not readily burn and no effort would be made to force those areas to burn. Ridge tops, upper slopes, south and west facing aspects dominated by oak and pine tend to carry a backing fire; thus the emphasis will be in these areas. Consequently, a mosaic of burned and unburned area will be produced across the landscape.

Purpose and Need for Project.

The Revised Cherokee National Forest Land and Resource Management Plan (RLRMP) Forestwide Goals and Objectives that specifically pertain to this project are the following:

GOAL 10 Maintain and restore natural communities in amounts, arrangements, and conditions capable of supporting viable populations of existing native and desired non-native plants, fish, and wildlife species within the planning area.

GOAL 17 Restore and maintain forest communities to those plant communities predicted as most likely to occur based on the ecological potential of the site potential natural vegetation.

OBJECTIVE 17.03 Over the ten-year period, restore at least 10,000 acres of shortleaf/pitch/table-mountain pine forests.

GOAL 18 Contribute to maintenance or restoration of native tree species whose role in forest ecosystems is threatened by insects and disease. Management activities will reduce the impacts from non-native invasive species.

OBJECTIVE 18.02 Promote the health of susceptible forest communities by maintaining a site-specific basal area that promotes tree vigor. Encourage advanced regeneration of oak species.

GOAL 21 Use fire during dormant and growing seasons to achieve ecological sustainability, rehabilitation, and restoration of fire dependant and associated communities. Identify and establish appropriate "burning blocks" that facilitate the use of prescribed fire to maintain and restore fire dependant and associated communities.

OBJECTIVE 21.01 Prescribe burn an average of at least 1,100 acres per year of shortleaf/pitch/table-mountain pine forests, in an effort to maintain a fire return cycle of 4-12 years.

OBJECTIVE 21.02 Prescribe burn an average of at least 5,200 acres per year of oak and oak-pine forests in an effort to maintain a 4-12 year fire return cycle.

OBJECTIVE 21.04 Prescribe burn an average of at least 1,200 acres per year of pine-oak forests in an effort to maintain a fire return cycle of 4-12 years.

GOAL 23 Fire dependent ecosystem components are maintained by desired fire regimes. Restore and maintain fire associated and dependent landscapes by moving them from condition class 2 and 3 to condition class 1.

GOAL 24 Reduce hazardous fuels through wildland fire use, prescribed fire, and mechanical fuels treatment.

OBJECTIVE 24.01 Reduce hazardous fuels between 19,000 and 60,000 acres per year with priority given to areas affected by insects, diseases, storm damage, and along NFS boundaries with high values at risk.

To achieve the goals and objectives of the RLRMP, the Purpose and Need of this prescribed burn is the following:

Primary Need: Reduce logging slash and prepare the area for natural regeneration and/or chestnut plantings (Goals 10, 17, 18, 21 and Objective 18.02), and

Long-term Benefits: Improve wildlife habitat by stimulating fruit production, new growth of wild grasses and legumes for seed eating animals and by encouraging new coppice sprouting in woody plants two inches or less in diameter at ground level for browsing animals (Goal 10), and continue the process of restoring the historic role of fire in maintaining natural fire dependant species and associated communities (Goal 21 and 23, Objectives 21.01, 21.02, and 21.04). Improve General forest health in the project areas by providing for the development of advanced reproduction of desirable species through the introduction of prescribed fire. (Goals 17, 18, and 21; Objectives 17.03, 18.02, 21.02, and 21.04). Decrease future wildfire severity and occurrence by reducing the fuel loading of 1-hour and 10-hour fuels by reducing leaf litter, herbaceous vegetation and dead/down fuels (Goal 24 and Objective 24.01),

This burn area is in RLRMP Prescription Areas 7.E.2 (Dispersed Recreation Areas). This prescription puts few to no constraints on use of prescribed fire; prescribed fire is generally compatible with other resources.

Implementation

For the environmental effects of the project, this Decision Memo (DM) utilizes the supporting documentation of the effects disclosure found in the Vegetative Management section of the Appalachian Mountains EIS (VMEIS) and the documentation found in the 2004 Final Environmental Impact Statement for the Revised Land and Resource Management Plan Cherokee National Forest.

The following standards from the RLRMP will be applied to the activity:

FW-18: WHEN PREPARING FOR PRESCRIBED FIRE, USE WET LINES, BLACK LINES OR HAND LINES WITHIN THE CHanneled EPHEMERAL STREAM ZONE AND ACROSS EPHEMERAL CHANNELS TO MINIMIZE SOIL DISTURBANCE. USE WATER DIVERSIONS TO KEEP SEDIMENT OUT OF THE STREAM CHANNEL. REMOVAL OF LITTER AND DEBRIS FROM THE CHANNEL IS PERMISSIBLE. DO NOT CONSTRUCT FIRELINES IN CHANNELS, BUT THEY MAY BE USED AS NATURAL FIREBREAKS.

FW-19: DO NOT PLOW FIRELINES WITH HEAVY MECHANIZED EQUIPMENT (E.G. BULLDOZERS AND TRACTORS) IN CHANNLED EPHEMERAL ZONES WHEN PREPARING FOR PRESCRIBED FIRE.

FW-21: CONDUCT ALL CNF MANAGEMENT ACTIVITIES (INCLUDING PERMITTED ACTIVITIES) IN A MANNER THAT DOES NOT CAUSE (1) A VIOLATION OF NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQ) OR (2) A VIOLATION OF APPLICABLE PROVISIONS IN THE STATE IMPLEMENTATION PLAN.

FW-23: NO PRESCRIBED FIRES WILL BE IGNITED IN A COUNTY WHERE THE AIR QUALITY INDEX (AQI) IS 90 OR ABOVE. CHOOSING THE VALUE OF 90 (YELLOW ZONE) IS CONSIDERED APPROPRIATE SINCE THE AIR REGULATORY AGENCIES MAY NOT BE AWARE A PRESCRIBED FIRE IS PLANNED THE NEXT DAY, THIS SHOULD ALLOW ADEQUATE ROOM SO OZONE OR FINE PARTICLE HEALTH CONCERNS ARE NOT EXCEEDED. THE AQI WILL NOT BE USED IN A DECISION TO BURN THE NEXT DAY IF THE APPROPRIATE AIR AGENCY HAS DEMONSTRATED (THROUGH THE USE OF APPROPRIATE ATMOSPHERIC MODELS) THAT PRESCRIBED FIRES ARE NOT A SIGNIFICANT CONTRIBUTOR TO THE NAAQ'S EXCEEDANCE, AND THE PRESCRIBE FIRE GUIDELINES ARE APPROPRIATE IN MAINTAINING AIR QUALITY.

FW-24: PROXIMITY TO NON-ATTAINMENT AREAS, AND AREAS THAT EXCEED OZONE OR FINE PARTICLE NAAQS IS SPECIFIED IN SMOKE MANAGEMENT PLANS.

FW-25: CNF WILL WORK WITH THE APPROPRIATE AIR AGENCY TO PROVIDE ESTIMATES ON THE TIMING, AMOUNT, AND LOCATION OF POLLUTION EMISSIONS FROM PRESCRIBED FIRES AS THE AIR REGULATORY AGENCY IS DEVELOPING PLANS TO BRING AN AREA BACK TO ATTAINMENT IN ALL DECLARED NON-ATTAINMENT AREAS.

FW-48: BASIC MESIC FORESTS ARE EXCLUDED FROM PRESCRIBED BURNING BLOCKS WHERE THIS CAN BE ACCOMPLISHED WITHOUT LARGE INCREASES IN FIRELINE CONSTRUCTION. WHEN NECESSARY TO INCLUDE MESIC DECIDUOUS FORESTS WITHIN BURNING BLOCKS, DIRECT FIRING WILL NOT BE DONE WITHIN THESE COMMUNITIES UNLESS NECESSARY TO SECURE CONTROL LINES. IN THESE CASES, ONLY LOW INTENSITY FIRES ARE ALLOWED.

FW-92: USE EXISTING BARRIERS, E.G. STREAMS, LAKES, WETLANDS, ROADS, AND TRAILS AS FIRELINES FOR PRESCRIBED FIRE, WHENEVER POSSIBLE TO REDUCE THE NEED FOR FIRELINE CONSTRUCTION AND TO MINIMIZE RESOURCE IMPACTS.

FW-93: ALL MANAGED BURNS WILL OPERATE UNDER A SMOKE MANAGEMENT PLAN THAT IS DEVELOPED AS PART OF THE PRESCRIBED BURN PLAN. USE THE BEST AVAILABLE AND EMERGING SMOKE MANAGEMENT MEASURES TO MINIMIZE IMPACTS ON AIR QUALITY AT SMOKE SENSITIVE RECEPTORS (SUCH AS HOSPITALS, CHILD CARE CENTERS, NURSING HOMES, ROADS, POULTRY FARMS, AND THE CLASS I AREAS – GREAT SMOKY MOUNTAIN NATIONAL PARK AND COHUTTA WILDERNESS).

FW-94: CONFORMITY WITH THE STATE IMPLEMENTATION PLAN WILL BE DEMONSTRATED FOR ANY PRESCRIBED FIRE PLANNED WITHIN EPA-DESIGNATED "NON-ATTAINMENT" AND "MAINTENANCE" AREAS.

FW-95: ALL MANAGED BURNS WILL COMPLY WITH SMOKE MANAGEMENT PROGRAMS FOR TENNESSEE, WHEN THESE ARE IMPLEMENTED. (PER EPA'S "INTERIM AIR QUALITY POLICY ON WILDLAND AND PRESCRIBED FIRES" WHICH WAS DEVELOPED WITH INVOLVEMENT OF THE USDA FOREST SERVICE.)

FW-96: WHERE NECESSARY TO INCLUDE MIXED MESOPHYTIC FORESTS AND NORTHERN HARDWOOD COMMUNITIES WITHIN PRESCRIBED BURN BLOCK, IGNITE PRESCRIBED FIRE WITHIN THESE COMMUNITIES TO SECURE LINE ONLY.

FW-97: DORMANT SEASON BURNS HAVE A CUTOFF DATE OF MAY 1ST OR THE BREAK OF DORMANCY, AS RECOMMENDED BY MULTI-DISCIPLINARY REVIEW AND TWRA WITH DECISION BY LINE OFFICER.

FW-99: CRITICAL VALUES FOR THE KEETCH-BYRAM DROUGHT CODE (CUMULATIVE SEVERITY INDEX) ARE ESTABLISHED FOR ALL PRESCRIBED BURNING ACTIVITIES. BURNING IS ALLOWED ONLY ON DAYS WHEN THE DROUGHT CODE IS LESS THAN THIS CRITICAL VALUE.

FW-100: PRESCRIBED FIRE IN AREAS MANAGED FOR TIMBER COMMODITY VALUE WILL CONSIDER POTENTIAL IMPACTS TO TREES. PRESCRIBE FIRE MANAGERS WILL DEVELOP BURN PLANS THAT PRODUCE ACCEPTABLE EFFECTS.

Monitoring

A post-burn evaluation form is part of the Burn Plan. The following information is collected immediately following the burn to determine if objectives are met:

- Amount of litter left in inches,
- Percent of understory vegetation consumed,
- Percent and area of crown scorch,
- Occurrences of spotting and/or jumpovers,
- Tree damage,
- Percent of top-kill of understory undesired vegetation,
- Occurrences of Smoke Management violations,
- Occurrences of escaped fires,
- Occurrences of complaints,
- Adverse effects,
- Any restoration needs,
- Were the objectives met?, and
- Recommendations for future evaluations.

Scoping and Public Involvement

Scoping for this project included review of the management direction for this area in the Cherokee National Forest RLRMP, review of the National Forest Management Act, and consultations with various Forest Service and other agency resource specialists. The project was scoped to 103 individuals and groups from September 16 to October 16, 2009. The project has been published in the Schedule of Proposed Actions since July 1, 2009 (PALS #28929).

A Federal Court decision in *Earth Island v. Ruthenbeck* in the Eastern District of California invalidated the provisions of 36 CFR Part 215 that excluded categorical exclusions such as prescribed burning from notice, comment, and appeal. The District Court order was applied nationwide affecting decisions signed after July 7, 2005.

As required by 36 CFR 219.35, I have considered the best available science in making this decision. The project record demonstrates a thorough review of relevant scientific information, consideration of responsible opposing views, and where appropriate, the acknowledgement of incomplete or unavailable information, scientific uncertainty, and risk.

Reasons for Categorically Excluding the Proposed Action

The proposed action qualifies for categorical exclusion under Category (5) in 36 CFR 220.6 (e). Category (5) states: “Regeneration of an area to native tree species, including site preparation which does not involve the use of herbicides or result in vegetation type conversion.”; and also Category (6): “Timber stand and/or wildlife improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction”.

Categories (5) and (6) were developed by the Forest Service, as allowed by the Council on Environmental Quality, for activities that do not normally have significant impacts on the human environment and therefore do not require preparation of an environmental assessment or an environmental impact statement.

Based on past experience, the effects of implementing this action will be of limited context and intensity and will result in little or no environmental effects to either the physical or biological components of the environment. This project has been reviewed for the existence of extraordinary circumstances that would result in significant environmental effects, and none were found. Therefore, this action can be categorically excluded from documentation in an environmental assessment or environmental impact statement.

Findings of No Extraordinary Circumstances

I have considered the following resource conditions and determined that there are no extraordinary circumstances existing that may cause the project to have significant effects. The mere presence of one or more of these resource conditions does not preclude use of a categorical exclusion. It is the degree of the potential effect of a proposed action on these resource conditions that determines whether extraordinary circumstances exist. The resource conditions are:

1. Federally listed threatened or endangered species or designated critical habitat, species proposed for Federal listing or proposed critical habitat, or Forest Service sensitive species.
 - a. The Endangered Species Act requires that federal activities do not jeopardize the continued existence of any species federally listed or proposed as threatened or endangered, or result in adverse modification to such species’ designated critical habitat. The Biological Evaluation is in the project file.
 - b. Forest Service Manual 2670 direction requires analysis of potential impacts to sensitive species, those species for which the Regional Forester has identified population viability is a concern. The Biological Evaluation is in the project file.
2. Floodplains, Wetlands, or Municipal Watersheds
 - a. Floodplains. Executive Order 11988 is to avoid adverse impacts associated with the occupancy and modification of floodplains. Floodplains are defined by this order as, “...the lowland and relatively flat areas adjoining inland and coastal waters include flood prone areas of offshore islands, including at a minimum, that area subject to a one percent [100-year recurrence] or greater

chance of flooding in any one year.” The project will not result in the occupancy or modification of a floodplain. This decision will not affect floodplains.

- b. Wetlands. Executive Order 11990 is to avoid adverse impacts associated with destruction or modification of wetlands. Wetlands are defined by this order as, “...areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds.” There are no inventoried wetlands in the affected area. If any small, uninventoried wetlands exist in the project area, they would be protected from any ground disturbance associated with hand or machine firelines. Due to the moist or wet conditions associated with wetlands, the prescribe burn would have minimal, if any, affect on any wetland area.
 - c. Municipal Watersheds. There are no source water/municipal watersheds within the project area for prescribed burning. This decision will not affect municipal watersheds.
3. Congressionally Designated Areas
 - a. There is no designated Wilderness, wilderness study areas, National Recreation Areas or Wild and Scenic Rivers within the burn area. This decision will not affect any congressionally designated areas.
 4. Inventoried Roadless Area
 - a. There are no inventoried Roadless areas in the project area (RLRMP & ROD 2004). This decision will not affect inventoried Roadless areas.
 5. Research Natural Areas
 - a. There are no Research Natural Areas in the burn area. This decision, with impacts limited to the immediate area of activity, will not affect Research Natural Areas.
 6. Native American Religious or Cultural Sites, Archaeological Sites or Historic Properties or Areas
 - a. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the National Historic Preservation Act also requires federal agencies to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. The Archaeological Resources Protection Act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered in federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands. The Native American Graves Protection and Repatriation Act cover the discovery and protection of Native American human remains and objects that are excavated or discovered in federal lands. It encourages avoidance of archaeological sites that contain burials or portions of sites that contain graves through “in situ” preservation, but may encompass other actions to preserve these remains and items. The No Cultural Resources Form is in the project file. Additionally, the Federal

government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes reserved rights are protected. Consultation with tribes helps insure that these trust responsibilities are met. Scoping included mailings to affected tribes.

- b. Additionally, the Federal government has trust responsibilities to Tribes under a government-to-government relationship to insure that the Tribes reserved rights are protected. Consultation with tribes helps insure that these trust responsibilities are met. Scoping included mailings to affected tribes.

FINDINGS REQUIRED BY OTHER LAWS

Forest Plan Consistency - As required by the National Forest Management Act, I have determined that this project is consistent with the Forest-wide standards and guidelines for all affected Management Areas. Prescribed burning will not lead to any violations of federal, state, or local laws imposed for the protection of the environment. This will be assured by carrying out the burns consistent with the standards and guidelines, management requirements, and mitigating measures established in the Revised Land and Resource Management Plan for the Cherokee National Forests (2004).

Clean Water Act - This Act is to restore and maintain the integrity of waters. The Forest Service complies with this Act through the use of Best Management Practices and Forest Plan standards. This decision incorporates Best Management Practices and Forest Plan standards to ensure protection of soil and water resources.

Wetlands (Executive Order 11990) - See extraordinary circumstances section of this document.

Floodplains (Executive Order 11988) - See extraordinary circumstances section of this document.

Endangered Species Act - See extraordinary circumstances section of this document.

Clean Air Act - Under this Act areas of the country were designated as Class I, II, or III airsheds for Prevention of Significant Deterioration purposes. Class I areas generally include national parks and wilderness areas. Class I provides the most protection to pristine lands by severely limiting the amount of additional human-caused air pollution that can be added to these areas. The project area is not located in a Class I area. A greater amount of additional human-caused air pollution may be added to these areas. The State has been involved in the planning process (project file). Prescribed burning in this decision will comply with notification of appropriate agencies and persons, smoke management guidelines to ensure compliance with air quality regulations and to maintain acceptable visibility in smoke sensitive areas.

Federal Cave Resources Protection Act - This Act is to secure, protect, preserve, and maintain significant caves, to the extent practical. No known cave resources will be affected by this decision.

National Historic Preservation Act - See extraordinary circumstances section of this document.

Archaeological Resources Protection Act - See extraordinary circumstances section of this document.

Native American Graves Protection and Repatriation Act - See extraordinary circumstances section of this document.

Wild and Scenic Rivers Act - See extraordinary circumstances section of this document.

Environmental Justice (Executive Order 12898) - This Order requires consideration of whether projects would disproportionately impact minority or low-income populations. Scoping did not reveal that this project would cause disproportionate impacts.

National Environmental Policy Act - This Act requires public involvement and consideration of potential environmental effects. The entirety of documentation for this decision supports compliance with this Act. The actions are designed to comply with all management requirements in the Record of Decision for the Final Environmental Impact Statement for Vegetation Management in the Appalachian Mountains, which was an amendment to the 1986 Forest Plan and incorporated into the RLRMP.

This project complies with the requirements related to vegetation management (16 U.S.C. 1604):

1. It is best suited to the multiple-use goals established for the area based on the Forestwide direction. This suitability is based on the potential environmental, biological, cultural resource, aesthetic, engineering, and economic impacts.
2. The areas will remain adequately stocked after treatment.
3. This action has not been chosen primarily due to cost considerations, although this was taken into consideration.
4. This action has been chosen after considering potential effects on residual trees and adjacent stands.
5. The action will avoid permanent impairment of site productivity and ensure conservation of soil and water resources.
6. The action will provide the desired effects on water quality and quantity, wildlife and fish habitat, woody regeneration, forage production, recreation uses, aesthetic values, and resource needs.
7. The project area is adequately roaded and no new permanent or temporary roads are necessary to implement this decision. This proposal is practical in terms of transportation requirements, and the total costs of preparation and administration. This project does not require a project-level roads analysis

because there are no permanent changes in access into the area, road standards will not change, and the project includes only maintenance activities.

Appeal Opportunities

This decision is not subject to appeal pursuant to 36 CFR 215.12 (e) and may be implemented immediately.

Contact Person

For additional information concerning this decision contact Vern Maddux at (423) 735-1500 or write to USDA Forest Service, Unicoi Office, 4400 Unicoi Drive, Unicoi, TN 37692.

____/s/*Terry S. Bowerman*_____

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_____11/03/09_____

Date