

Chapter 2. Alternatives, Including the Proposed Action

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2.1 INTRODUCTION

This chapter describes: 1) the alternative development process, including how public comments help formulate the alternatives, 2) alternatives considered but eliminated from detailed study, and 3) alternatives considered in detail. Alternatives were designed with an interdisciplinary approach considering the size and scope of the project, the purpose and need, the unresolved issues, and the expected environmental impacts. The alternatives include mitigation measures and monitoring requirements. This chapter also provides a brief comparison of the alternatives. This information, along with the disclosure of projected environmental consequences in Chapter Three, provides the decision-maker with the information necessary to make a reasoned choice between alternatives.

2.2 ALTERNATIVE DEVELOPMENT PROCESS

2.2.1 Scoping

Scoping is the process of gathering comments about a site-specific proposed federal action to determine the scope of issues to be addressed and for identifying the unresolved issues, which are related to a proposed action (40 CFR 1501.7).

During this analysis process, resource specialists from various disciplines inventoried and analyzed information concerning the Middle Mountain area. Opportunities were identified that would move the area from existing conditions towards desired future conditions identified in the Forest Plan.

Comments on the proposed action, potential concerns, and opportunities for managing the Middle Mountain area were solicited from Forest Service employees, members of the public, other public agencies, adjacent property owners, and organizations. A scoping letter was sent to 35 interested individuals and organizations on January 9, 2006. The scoping comment period for this project ended on February 10, 2006. On February 15, 2006, a news release was also

published in the local newspapers to give further public notification of the proposal. Nine letters, e-mails, phone calls, or personal contacts were received during the scoping process. Three comments were received outside of the scoping period. The comments received before, during and after the 30-day scoping period was used to define unresolved issues, to develop alternatives, and to identify environmental consequences.

2.2.2. Issues Used to Formulate Alternatives

The purpose of soliciting comments during the scoping period is to determine whether there are any significant issues based on the proposed action. An issue is generally a point of discussion, considered in determining the final unresolved issues. Not all issues are significant issues. Issues are significant because of the extent of their geographic distribution, the duration of their effects, or the intensity of interest or resource conflict. Once identified, the significant issues are used to formulate alternatives, prescribe mitigation measures, or analyze the environmental effects. Identified significant issues determine the scope (40 CFR 1508.25) of the environmental analysis. The disposition of comments received during the scoping period is found in the project file in section C. The unresolved issues are found below.

2.2.2.1 Issue 1: No savannah construction within Management Prescription 6.2

There was a concern about the creation of wildlife savannahs in the Middle Mountain area within MP 6.2 area and the proposed wilderness area. Some of the commenters did not support the use of mechanical equipment to create wildlife savannahs in the MP 6.2 and proposed wilderness area because they felt this would further alter the area and make it less acceptable as wilderness. They also felt savannahs would not fulfill the objective of MP 6.2 to create a “dispersed backcountry recreation in a naturally appearing setting.” One of the commenters implied the proposal to create savannahs within the boundaries of the proposed wilderness area contradicted Alternative 3 of the 2006 Revised Forest Plan. They proposed an alternative to construct the savannahs further north of FR 790 and/or on Beaver Lick Mountain west of Neola. Constructing the savannahs in another area would ensure the project is entirely in MP 6.1 and out of MP 6.2 and the proposed wilderness area.

Under the current 1986 Forest Plan, about 97 percent (471 acres) of the project area is in MP 6.1, with only 3 percent (15 acres) in MP 6.2. The proposed action is to create five savannahs through tree and stump removal, piling debris, seeding with native grasses and forbs, and mulching in the MP 6.1 area. Prescribed burning and mowing was proposed to control unwanted vegetation within the savannahs. Savannah development was not proposed within MP 6.2. However, under the 1986 Forest Plan, the proposed action can occur in MP 6.2, except for the prescribed burning (1986 Forest Plan, pg. 190).

Units of measure used to evaluate this issue will be:

- Acres of prescribe burning within MP 6.2

2.2.2.2 Issue 2: Proposed action does not meet the desired future condition (DFC) – increased open area in the project area

There was a concern that the proposed action was not doing enough to move the project area toward the desired future condition. Commenters supported the creation of savannahs in Middle

Mountain but felt the proposed acreage was not enough. The commenters proposed additional acreage be developed into savannahs.

The primary purpose for MP 6.1 is to emphasize remote habitat for species intolerant of disturbance through silvicultural methods (e.g., prescribe burning, thinning, etc.). Diversity of Forest vegetative cover will be enhanced by the dispersion of a variety of species, types, and ages. The intent is to ultimately provide each element of vegetative diversity within the normal home range of wild turkey. The DFC is to have about five percent of the opportunity area gross acreage in permanent openings.

Conversely, there was a concern that the creation of savannahs in the Middle Mountain area would cause more fragmentation to the landscape of the area; therefore, causing more habitat loss for species sensitive to fragmentation. However, as discussed in this section, the guidelines for MP 6.1 in Middle Mountain area describe the desired future condition of this area needed to have at least five percent of permanent openings of the gross acres.

Units of measure used to evaluate this issue will be:

- Percent of project area acreage in permanent wildlife openings.

2.3 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

The following is a summary of an alternative considered by the interdisciplinary team but eliminated from detailed study, along with the rationale for dismissal.

Do not create more savannahs

The issue raised by the public to not create more savannahs is considered to be outside the scope of the proposed action. It is fact that wild turkey is benefiting from the existing savannahs in Middle Mountain but that does not give a good reason not to create more savannahs. The ID team feels the construction of more savannahs will only further benefit the wild turkey and will help move the project area closer to the DFC. One of the major limiting factors on the NF is broad range for wild turkey. Therefore, creating more savannahs will create more broad range for wild turkey.

The comment stating the FS does not adequately take care of the existing savannahs, so why create more is outside of the scope of the proposed action. The commenter suggested that the FS mow annually. The Forest Service, partnering state agencies and private organizations want the savannahs to be mowed on three-six year rotations. The management objective is to allow the savannahs to support other type of wildlife other than wild turkey. Furthermore, as long as the woody stems are controlled the herbaceous, forbs, and grasses in the savannahs will not be choked out.

2.4 ALTERNATIVES GIVEN DETAILED STUDY

The following section gives a detailed description of each alternative given detailed study, including a description of features common to alternatives. The numbers of acres or miles identified for activities have been identified from mapping and should be considered estimates.

2.4.1 Alternative 1- No Action

The National Environmental Policy Act (NEPA) requires that an EA include a “no action” alternative to serve as a baseline to compare action alternatives. The no action alternative is based on the premise that ecosystems change, even in the absence of active management. This alternative provides the decision-maker with a clearer basis for a reasoned choice among the alternatives studied in detail.

With the “no action” alternative, the proposal would not be implemented. Ongoing, routine management activities such as facilities, road and trail maintenance, and fire suppression would continue to occur within the planning area.

2.4.2 Features Common to All Action Alternatives (except where noted)

The amount of these activities would vary between the alternative because the acres proposed is different for the proposed action and the proposal developed after the scoping period. The following is a description of each activity, including activity objectives.

2.4.2.1 Roads

In both action alternatives, there would be no road construction, reconstruction or decommissioning. Existing haul roads from previous timber sales and the Middle Mountain Trail #408 would be used to transport timber from the log landings. About 1.5 miles of existing skid trails would be used and about one mile of skid trail would be created without using dozer blades on the ground.

On roads, landings and skid trails where soils have been disturbed, limestone and fertilizers would be added prior to re-vegetation to help establish vegetation in order to stabilize the soils.

2.4.2.2 Seeding, Mulching, Fertilization, and Liming

In both action alternatives, all savannah units would be seeded, mulched, fertilized, and limed (if needed) following stump removal and debris piling. The seed mixture would consist of native grasses and forbs to create the desired mix of hiding cover and foraging opportunity (see Chapter 3 botany discussion). The fertilizer and lime would be applied to enhance the soil productivity. Debris piles would serve as wildlife shelters.

2.4.2.3 Prescribed Burning and Mowing

Prescribed burning is included in both action alternatives. The primary purpose of prescribed burning is to help control woody vegetation within the savannahs in conjunction with mowing. Debris piles within the savannahs would be protected during prescribed burns. Alternative 2 includes 442 acres of prescribed burning and Alternative 3 includes 423 acres.

Mowing would occur in units that have stumps removed. All of the savannah units in Alternative 2 would have stump removal; and subsequent mowing. In Alternative 3, only savannah units 3 & 4 (combined) and 5 would be mowed because these are the only unit with stump removal.

2.4.2.4 Commercial Thinning

Both action alternatives include thinning of stands adjacent to the savannahs to improve the health and species composition of these stands to enhance the wildlife habitat.

2.4.2.5 Wildlife Watering Holes and Openings

Both action alternatives include construction and restoration of wildlife water holes (small ponds). One wildlife opening exists in the southern part of the project area. Both action alternatives include creating additional wildlife openings from log landings to move the project area closer to the DFC.

2.4.3 Features Not Common to All Action Alternatives (except where noted)

Herbicide Use: Herbicide use is included only in Alternative 3, for savannah units 1,2,6,7, and 8. These units would not have stump removal, which means mowing them would be impractical. Woody vegetation (including striped maple and black locust) would be controlled through prescribed burning in these units. The herbicide treatments would only be used on these 27 acres if prescribed burning does not effectively control woody vegetation, which may occur if burns are not successful or if poor burning conditions prevent prescribed burning altogether. The EPA-approved herbicides triclopyr and/or glyphosate would be applied to individual trees by using either a backpack sprayer or a hatchet and squirt bottle.

Herbicide use is not expected to adversely affect resources or human health in the project area. Effects of the herbicides that may be used (triclopyr and glyphosate) are well documented in Human Health and Ecological Risk Assessment Reports performed for the USDA Forest Service by Syracuse Environmental Research Associates in 2003. The 1989 Vegetation Management FEIS conducted by Region 8 of the USDA Forest Service documents the effects of herbicide use and prescribed fire on various resources as well as human health and safety.

2.4.4 Alternative 2- Proposed Action

Alternative 2 is the proposed action that was presented during the public scoping period and amended following further analysis. Alternative 2 was developed to meet the purpose and need for action described in Chapter 1. A visual display of the activities described in the following section can be found on Map 2-1 on page 2-9.

Alternative 2 would create 5 savannah units totaling about 27 acres. This would include removing unwanted trees through commercial timber harvest, removing stumps, and piling debris. The soil would then be scarified, seeded, mulched, fertilized and limed (as needed) to establish grass and forb vegetation underneath the remaining tree canopy. An additional 82 acres surrounding the savannah units would receive an intermediate harvest treatment (thinning). About 486 acres would receive a prescribed burn treatment every 3 to 5 years to maintain the savannahs as grassy openings and retain the mixed oak and oak-pine forest types in the surrounding area. Over the years, the savannahs would be maintained through a combination of mowing and prescribed burning.

There are two existing water holes in the project area. The water hole in the northern boundary is not holding water; therefore, it would be restored. The water hole in the southern boundary is very functional and will not need to be restored (see attached map 2-1).

2.4.5 Alternative 3

Alternative 3 was developed to address the issue of treatments in MP6.2 by dropping savannah development and prescribed burning from this area. It also addresses the issue of creating more wildlife openings by adding three more savannah units.

Alternative 3 would create 8 savannah units totaling about 56 acres. This would include removing unwanted trees through commercial timber harvest and piling debris. Stumps would only be removed in savannah units 3&4 and 5, while stumps in units 1, 2, 6, 7 and 8 would be left. The soil would then be scarified, seeded, mulched, fertilized and limed (as needed) to establish grass and forb vegetation underneath the remaining tree canopy. An additional 83 acres surrounding the savannah units would receive an intermediate harvest treatment (thinning). About 467 acres would receive a prescribed burn treatment every 3 to 5 years to maintain the savannahs as grassy openings and retain the mixed oak and oak-pine forest types in the surrounding area. Over the years, the savannahs would be maintained through a combination of mowing and prescribed burning.

Alternative 3 would potentially use herbicides on about 27 acres of savannah units if prescribed burning does not accomplish the objective of maintaining savannah units 1, 2, 6, 7, and 8 relatively free of encroaching young woody stems of striped maple and black locust. Savannah units 3, 4, and 5 would be maintained by mowing and prescribed burning.

The existing water hole in the southern boundary would remain. In the northern boundary, the existing water hole would be restored and a new water hole would be created (see attached map 2-2).

2.5 COMPARISON OF ALTERNATIVES

Table 2-1: Middle Mountain Wildlife Savannah Project Comparison of Alternatives

Activity	Alternative 2	Alternative 3
Project Boundary	486.2 acres	486.2 acres
Savannah unit 1	5.4 acres	3.9 acres
Savannah unit 2	6.2 acres	5.2 acres
Savannah unit 3	3.9 acres	7.5 acres
Savannah unit 4	1.7 acres	Combined w/unit 3
Savannah unit 5	9.3 acres	20.2 acres
Savannah unit 6	0 acres	6.3 acres
Savannah unit 7	0 acres	3.4 acres
Savannah unit 8	0 acres	7.1 acres
Total Savannah Area	26.5 acres	53.6 acres
Thinning Area	82.1 acres	83.1 acres

Wildlife Openings		0 acres	2.7 acres
Burning Boundary – fire line (Total area)		441.8 acres	423.1 acres
Method of creating Burning Line Boundary	Burning Line – Dozer	1.5 miles	1.5 miles
	Burning line – Existing Road/trail/creek	4.1 miles	5.0 miles
	Burning line – Hand	2.2 miles	1.2 miles
Skid Trail – Total		2.4 miles	2.6 miles
Skid Trail Development	Skid Trail – Existing	1.5 miles	1.5 miles
	Skid Trail – New (no blades to create)	0.9 miles	1.1 miles
Log Landings (1 existing), (3 expanding)		4 each	4 each
Waterholes – new		2 each	3 each
Herbicide		0 acres	25.9 acres

Method of creating savannah	Proposed Action	Alt 3
Grubbing Stumps / mowing	Unit 1-5 = 26.5 acres	Unit 3, 5 = 27.7 acres
Burning	0 units = 0 acres	Units 1,2,6,7,8 = 25.9 acres

2.6 MITIGATION MEASURES AND PROJECT DESIGN FEATURES

Herbicide Use - Triclopyr and glyphosate would not be applied within 50 feet of any continuous stream channel, spring, or seep. Herbicide would not be applied during periods of precipitation, or when the soil is saturated. Use of triclopyr and glyphosate would be strictly according to label instructions, and supervised by a certified applicator as required by West Virginia State law. Rates of application would not exceed, on the average, 1 lb/ac for Garlon 3A, and 4 lb/ac for Garlon 4. Treatment of individual stems by hand treatment methods would help limit the quantity of herbicide actually used. None of the savannahs is near a functioning stream channel. All five savannahs would have wide filterstrip areas between potential areas of herbicide use and the nearest stream channel. The forest floor and filterstrip width would effectively trap herbicides from movement downslope, and facilitate herbicide degradation within the soil.

Prescribed Burning - All prescribed burns would comply with a Prescribed Burning Plan approved by the District Ranger. Control lines constructed for the burn that expose mineral soil would have drainage structures (waterbars or dips) installed to limit soil loss. Spacing of the drainage structures would depend on the slope and proximity to a stream channel. Maintain an unburned buffer along Douthat Creek of at least 100 feet. Restrict dozer fireline construction within the filterstrip of Kline Hollow on both sides of the hollow; use hand fireline construction within the filterstrip. Incorporate soil and water monitoring into a monitoring plan for the prescribed burn activities, to document any erosion and sedimentation effects of repeated watershed burning.

Recreation – The section of the Middle Mountain Trail common to the project area would be temporarily closed to public use during active harvest operations and construction activity. Closure signs would be posted at entry points along the trail, and public notices would be posted at trailheads. Efforts would be made to avoid scheduling harvest activities during the spring turkey and fall buck hunting seasons, to avoid disruptions to hunters. The District Ranger may temporarily close FR 790 and FR 962 to Class Q hunting if management activities would threaten public safety. This hunting opportunity could be temporarily relocated to FR 300, Marlin Mountain, if needed.

Within savannah areas, slash piles would be located away from the trail corridor to reduce visual concerns. Contractors would be required to remove slash from the trail corridor, and to buck and scatter slash adjacent to the trail. Rutting of the trail would be repaired as soon as possible after harvest or construction activities are completed. Efforts would be made to re-vegetate the Middle Mountain Trail #408 surface as soon as practical.

Cultural Resources: Known cultural resource sites would be marked and avoided during project implementation. Avoidance could occur through either directional felling away from the site or a buffer comprising the height of the nearest possible fell, plus one-half the height.

As the timber is cruised and marked, and during the course of project implementation, Forest Service staff should be aware of the potential for locating additional historic and prehistoric sites in the project area. If a site is located, the Forest Archaeologist would be notified and an appropriate avoidance strategy determined.

Riparian Zones: Wildlife water holes should be located well upslope of the tops of functioning (ephemeral) stream channels. Ponds would be located as close to the ridgetops as is practical, considering other factors such as soil depth and water-holding capacity (see Soils recommendations). This recommendation is to reduce the risk of ponds capturing too much concentrated runoff in stormflow or snowmelt conditions, and then overtopping with pond breaching and channel erosion below. Protect riparian resources of all perennial, intermittent and ephemeral streams by applying the riparian buffer protection measures. Perennial streams would have a minimum no harvesting buffer of 100 feet, intermittent streams 50 feet and ephemeral streams 25 feet along both sides of the stream channel.

Soils: Skid routes should be located to minimize soil and filterstrip disturbance, avoid functioning stream channel crossings, utilize existing old skid routes, and avoid the steeper and wetter areas within the units and areas of disturbance to the maximum extent practical. Overland skidding should be used wherever practical, especially in those areas of the more gentle terrain when soil and wetness conditions will support it.

- Rip severely compacted areas expected to grow future biomass (primary skid trails, log landings).
- Gravel would be an accepted source of mulch that helps to prevent erosion and road bed failures that result in rutting- this has been observed on a regular basis across the forest.
- Gravel approaches to stream channels on roads.
- Skidding/hauling suspended during periods where soils are 1) saturated due to high levels of precipitation when air temperatures are above freezing; 2) thawing during winter

months after periods of being frozen; 3) and under any other conditions that would occur that soils would appear to be saturated.

- Seed and mulch all disturbed soils that are disturbed into the mineral horizon. Seed would be native and/or annual grass; mulch would be relatively weed free.
- Lime and fertilizer would be applied where needed. Soil testing may be done to identify rates of application.

Timing Restrictions - There will be no timber harvest operations for the first week of deer gun season (normally the week of Thanksgiving) in any commercial timber harvest unit without prior written permission from the Timber Sale Contracting Officer and/or the District Ranger.