

Chapter 1—Purpose and Need

Document Structure

The Forest Service prepared this Final Environmental Impact Statement (FEIS) in compliance with the National Environmental Policy Act (NEPA) and other relevant laws and regulations. This FEIS discloses the direct, indirect, and cumulative environmental impacts that would result from implementation of each of the five alternatives documented in detail. The document is organized into five chapters:

Chapter 1. Purpose and Need: This chapter includes information on the history of this Forest Plan revision and the purpose of and need for the revision. This section also details how the Forest Service informed the public about Plan revision and how the public responded.

Chapter 2. Alternatives: This chapter provides a detailed description of the five alternatives that the agency has evaluated for achieving the stated purpose of Plan Revision. These alternatives were developed based on significant issues raised by the public and other agencies and internal management concerns. Chapter 2 provides summary tables that compare the environmental consequences of each alternative.

Chapter 3. Affected Environment and Environmental Consequences: This chapter describes the environmental conditions of the Forest and the environmental effects of implementing each of the five alternatives. This chapter is organized by major environmental components.

Chapter 4. List of Preparers: This chapter provides a list of preparers of this FEIS.

Chapter 5. Distribution List: This FEIS was distributed to the agencies, organizations, and individuals listed in this chapter (as required by NEPA).

Appendices: The appendices provide more detailed information to support the analyses presented in the FEIS.

Additional documentation may be found in the administrative record located at the Forest Supervisor's Office in Hot Springs, Arkansas.

Purpose of and Need for Action

The Forest Service proposed to revise the Land and Resource Management Plan (Forest Plan) for the Ouachita National Forest in 2002. This Forest Plan provides long-term, strategic direction for natural resource management on the Forest. Projects designed to implement the direction of the Forest Plan are undertaken only after additional, project-specific environmental analysis and public involvement.

The Forest Service published the Amended Forest Plan for the Ouachita National Forest in 1990 (replacing the 1986 Forest Plan). The Amended Forest Plan was 15 years old in March 2005. Part of the need to revise the Forest Plan is that the National Forest Management Act (NFMA) calls for such plans to be revised every 10 to 15 years. The need to revise this Forest Plan was also driven by the changing conditions identified in the Ozark-Ouachita Highlands Assessment, the Southern Forest Resource Assessment, and ongoing monitoring and evaluation results specific to the Ouachita National Forest.

Decision Framework

The Forest Service allocates resources and makes resource management decisions concerning National Forest System lands in two stages. In Stage One, the Forest Plan allocates lands and resources to various uses and desired conditions by establishing forest-wide and Management Area-specific direction. Site-specific project management decisions are made in Stage Two. Forest Plans do not obligate the agency to undertake site-specific projects; rather, they establish desired conditions, objectives, and design criteria for projects. Forest Plans also set limitations on what actions may be authorized and what conditions must be met during project-level decision-making. Authorization of site-specific projects must comply with NEPA procedures.

The primary decisions made in a Forest Plan include:

- Establishment of Forest-wide multiple-use goals (desired conditions) and objectives (36 CFR 219.11(b))
- Establishment of Forest-wide management requirements (36 CFR 219.13 to 219.27)
- Establishment of Management Areas and associated management standards (36 CFR 219.11(c))
- Determination of land that is suitable for the production of timber (16 U.S.C. 1604(k) and 36 CFR 219.14)
- Establishment of an allowable sale quantity (ASQ) for timber within a time frame specified in the Forest Plan (36 CFR 219.16)
- Establishment of monitoring and evaluation requirements (36 CFR 219.11(d))
- Recommendations for potential wilderness areas or wilderness additions (36 CFR 219.17)
- Designation of lands administratively available for oil and gas leasing and consent to the Bureau of Land Management to offer specific lands for leasing (36 CFR 228.102(d) and (e)); authorization of actual site-specific projects must comply with NEPA procedures

The Regional Forester is the Responsible Official who decides which alternative best meets the overall needs of the Ouachita National Forest and the people of the United States

Relevant Planning Documents

The following documents contain environmental analyses and assessments that are not repeated in the FEIS, but provide supporting documentation for the analysis and some Forest Plan decisions:

- *Final Environmental Impact Statement for the Suppression of the Southern Pine Beetle* (USDA Forest Service, Southern Region 1987)
- *Final Environmental Impact Statement for Vegetation Management in the Ozark-Ouachita Mountains* (USDA Forest Service, Southern Region 1990) and its supplement in 2002
- *Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and Its Habitat on National Forests in the Southern Region* (USDA Forest Service, Southern Region 1996)
- *Ozark-Ouachita Highlands Assessment* (USDA Forest Service, Southern Region 1999)
- *Southern Resource Assessment* (USDA Forest Service, Southern Region 2002)
- *Final Environmental Impact Statement for an Amendment to the Land and Resource Management Plan—Management Direction for Acquired Lands in Southeastern Oklahoma (Ouachita National Forest)* (USDA Forest Service, Southern Region 2002)

Copies of these documents are available for review at the Forest Supervisor's Office in Hot Springs, Arkansas.

The Planning Process

Forest Plan revision is part of the national forest planning framework. In addition to NFMA, the Government Performance and Results Act of 1993 and the 2004 Revision of the USDA Forest Service Strategic Plan provide broad direction for Forest Plan revision. This FEIS, like the Revised Forest Plan it supports, was developed according to the NFMA implementing regulations at 36 Code of Federal Regulations (CFR) 219 (September 30, 1982, as amended), the National Environmental Policy Act of 1969, and the Council of Environmental Quality regulations at 40 CFR 1500-1508. The FEIS discloses the environmental consequences of each alternative and how each would respond to the significant issues identified.

Planning steps required by NFMA include:

- Identification of significant issues (including concerns and opportunities)
- Development of planning criteria
- Inventory of resources and data collection
- Analysis of the Management Situation
- Formulation of alternatives
- Estimation of effects of alternatives
- Evaluation of alternatives
- Recommendation of the preferred alternative
- Approval and implementation
- Monitoring and evaluation

The Forest Service's 10-step planning process is described in 36 CFR 219.10. The results of Steps 1 through 8 are disclosed in Chapters 1 through 3. The Ouachita National Forest's Plan Revision Team holds responsibility for developing the 2005 Revision. Efforts were made to provide detailed explanations of each step of the revision in the form of process (planning) records. Process records are on file in the Forest Supervisor's Office in Hot Springs, Arkansas. To review these records, contact: Ouachita National Forest Supervisor's Office, P.O. Box 1270, Hot Springs, AR 71902; Telephone: 501-321-5202.

Summary of Public Involvement

The Notice of Intent (NOI) to begin the revision process and the formal public scoping period was published in the Federal Register on May 1, 2002. Written public comments were received and logged in at the Forest Supervisor's Office in Hot Springs, Arkansas, during the formal public scoping period of May 1 through August 2, 2002. Four public meetings were conducted in June 2002 to provide information about the revision process and to solicit public comment.

In September and October 2003, two series of public meetings ("open house" format) were conducted in various locations across the Ouachita Mountains. The first series provided forums for discussion of off-highway vehicle use on the Forest, considered one of the most important issues for Forest Plan revision. The second series of meetings focused on key inventory data for Forest Plan revision, including scenic quality, species viability, roads analysis, and roadless areas. In April 2004, three more public open houses were held to invite feedback and discussion concerning the draft alternatives for the proposed Revised Forest Plan.

Plan Revision newsletters were periodically published and distributed to the Forest Plan mailing list (consisting of 2,500 individuals, groups, agencies, and organizations at its peak) during the planning process. The proposed Revised Forest Plan and accompanying DEIS were made available for review by the public, other agencies, tribal officials, and other elected officials on February 25, 2005; comments regarding the Forest Plan documents were accepted if they were postmarked (or email dated) by May 27, 2005. In addition to distributing hard copies of the draft documents to those who requested them, three public meetings were held to provide information on how to comment. The Forest Supervisor made copies available to all interested parties on the Ouachita National Forest website and on compact discs and widely advertised the availability of all forms of the plan documents to the public, other agencies, Indian tribes, and elected officials. See Appendix A for additional information regarding public involvement in this process. Appendix A also includes a summary of substantive comments received and Forest Service responses to those comments. Comment letters from other federal and state agencies and elected officials are reproduced in their entirety.

Release of the Revised Plan and FEIS

After the comment period for the DEIS ended, all comments received were analyzed, considered, and responded to in the Final Environmental Impact Statement (FEIS).

Significant Issues

After scoping, all elements identified in the Notice of Intent remained important; however, the categories used to organize the issues changed. The issue of Ecosystem Health and Sustainability was unchanged. Silvicultural Practices was included under this category along with other elements that were identified during scoping rather than keeping silvicultural practices a separate issue. The category of Roadless Areas, Recreation, and Motorized Access was separated into two categories, with the Roadless Areas issue moved to a new category called Land Use Designations. Recreation and Motorized Access issues were placed in a category called Public Access. The Relationship of National Forest Management to Local Communities and Economies was renamed Relationship of the National Forest to Communities. The significant issues identified by the Forest Service and examined in this FEIS are further refined as shown below.

Issue Category: Ecosystem Health and Sustainability

What forest management strategies and practices are needed to maintain or improve ecosystem health and sustainability?

Four major areas of concern for this issue category are addressed by the Forest Plan:

- Oak Decline and Mortality
- Viability of Threatened, Endangered, and Other Species of Concern
- The Use of Prescribed Fire in Vegetation Management
- The Use of Uneven-aged and Irregular Even-aged Silviculture

The Forest Plan addresses the following:

- Changes needed in management direction for maintaining or restoring healthy forest ecosystems in the face of new threats from insect outbreaks and diseases (36 CFR 219.27), including oak decline and mortality
- Changes needed in Forest Plan direction for maintaining habitats for viable populations of native plant and animal species (36 CFR 219.19)
- Changes needed in air, soil, and water quality standards
- Changes needed in the standards for implementing different reproduction cutting methods and other silvicultural practices and the predicted levels at which such methods and practices would be implemented on the Ouachita National Forest

Issue Category: Land Use Designations

What constitutes the appropriate balance and combination of land use designations?

Wilderness Recommendations

Six inventoried roadless areas that were initially identified during the 1978 RARE II were reanalyzed for roadless characteristics and the two that still met roadless criteria were evaluated for their wilderness potential. In addition, six other inventoried roadless areas identified were evaluated for wilderness potential per 36 CFR 219.17. Alternatives C and E would recommend additions to Flatside, Upper Kiamichi, and Poteau Mountain Wildernesses. Alternative D would recommend the same three additions, plus creation of three new wilderness areas: Blue Mountain, Brush Heap and Irons Fork.

Riparian Areas

Under the 1990 Amended Forest Plan, water and riparian areas were designated as Management Area (MA) 9. These areas also overlapped or were included within other designated management areas. Amendment 12 (July 22, 1993) moved riparian areas from most management areas into MA 9. Lands and waters within MA 9 include at least 100 feet from both edges of all perennial streams and the shores of bodies of water greater than ½-acre in size and variable distances, but at least 30 feet from both edges of other streams with defined stream channels. Lands in MA 9 are unsuitable for timber production. As direction for this MA has been implemented, needs to clarify the associated management standards have emerged.

The Forest Plan addresses the following:

- Changes needed in definitions and standards for MA 9 (water and riparian)
- Roadless areas that may be eligible and suitable for wilderness recommendation(s) (36 CFR 219.17)
- Changes needed for suitability determinations, including lands suitable for timber production (36 CFR 219.14(d)) [For the Ouachita National Forest, the required 10-year review of lands not suitable for timber production is being accomplished with this revision.]

Issue Category: Public Access and Recreational Activities

How should the Forest provide public access while safeguarding ecosystem health?

Included within this category is public access to the Forest for recreational opportunities, including off-highway vehicle use. The Revised Forest Plan was informed by a forest-wide roads analysis (36 CFR 212.5) and by consideration of the work of the National Off Highway Vehicle (OHV) Policy and Implementation Teams.

Transportation System

Road density (miles of open road per square mile of surface area) varies across the Forest. The Revised Forest Plan provides updated direction for managing a road system suitable for land and resource management activities and public access while limiting impacts to wildlife, soil, and water resources.

Recreation Opportunities

According to Report 4 of the Ozark-Ouachita Highlands Assessment (USDA Forest Service, Southern Research Station 1999), recreation participation in nearly all activities increased on the national forests of the Ozark-Ouachita Highlands from 1986 to 1996, with the most dramatic increases—measured in terms of percent change—occurring in bicycling (most likely mountain biking), horseback riding, and the use of OHV's. In terms of actual participation rates, the five most popular outdoor recreation opportunities on these national forests were sightseeing, camping, hunting, fishing, and hiking. In the South, "participation in most activities is projected to increase significantly more than the Nation as a whole." Primitive camping and hunting are projected to decline somewhat.

Where recreation demands conflict, increased user complaints and environmental impacts are expected. In addition to the kinds of conflicts and problems associated with dispersed recreation activities (those not taking place in highly developed recreation areas), there are concerns about the costs of maintaining developed recreation areas on the Ouachita National Forest. Some of these recreational facilities are deteriorating because of their age and/or heavy use. Lack of sufficient funds to maintain and repair them points to a need to close some areas and strictly limit development of new ones.

Off-Highway Vehicle Use

Cross-country OHV travel is a suitable use over large portions of the Ouachita National Forest under the 1990 Forest Plan. Areas of concentrated use where OHV impacts pose persistent problems include Wolf Pen Gap Trail, Little Missouri River watershed, the Lake Ouachita area, and many utility rights-of-way. User conflicts, such as those experienced when some hunters and hikers encounter OHV riders, are increasing as demands for OHV access increase. The 1990 Forest Plan direction includes guidelines to "provide for Off-Highway vehicle use" and "designate special areas for OHV use." Alternatives B, C, D, and E include management direction that cross-country travel by motorized vehicles is unsuitable with Alternative D including an exception for cross-country travel for game retrieval.

The Forest Plan addresses the following:

- Changes needed in management standards and desired conditions for the transportation system within the Ouachita National Forest
- Changes needed to address existing and likely future conflicts among dispersed recreation activities
- The mix of developed and dispersed recreation opportunities on the Forest
- Forest Plan direction concerning use of motorized vehicles

Issue Category: Relationship of the National Forest to Communities

What forest management direction should be implemented to support community development needs in and around the Ouachita National Forest?

Communities near the Ouachita National Forest are affected by the condition and management of these public lands and the opportunities for recreational and business-enhancing activities they present. Such communities have a special relationship with the National Forest, as implied by the National Forest-Dependent Rural Communities Economic Diversification Act of 1990, which directs the Forest Service to help national forest-dependent communities organize, plan, and implement actions that diversify local economies.

Timber production has important economic impacts in some communities near the Ouachita National Forest. Many also recognize benefits to their economies and quality of life from national forest management of recreation activities, recreation settings, visual quality, tourism, water, range, and wildlife. The Forest Service, partner agencies, and local governments are also concerned about the potential impacts on communities at risk from wildfires spreading from the National Forest. Fuel levels are an important influence on rural communities; therefore, the manner in which the National Forest maintains forest fuels was an important issue. Changes included in alternatives with the potential to affect the National Forest's ability to support long-term community development needs in the vicinity of the Ouachita National Forest included management direction that would make cross-country travel by motorized vehicle unsuitable, an increase in allowable sale quantity, and an increased program of prescribed fire.

Communities expressed a keen interest in management of the Ouachita National Forest, particularly in the areas of allowing timber production and suitability of the Forest for cross-country travel. There are trade-offs between providing benefits to communities from timber production versus providing benefits to communities from recreation and tourism opportunities.

The Forest Plan addresses the following:

- Changes in harvest levels and their projected effects on local economies
- Effects of recreation, wildlife-related activities, and tourism on local economies
- Effect of fuels management within the national forest in relation to communities at risk

Other (Non-Significant) Issues

In addition to the significant issues, the Revised Forest Plan addresses the following issues:

- Management Area definitions and boundaries
- Visual management
- Priorities for land acquisition and disposal
- Preservation of Heritage Resources
- Monitoring of Forest Plan objectives and standards
- Water and riparian management
- Allowable Sale Quantity (ASQ) for timber
- Wild and Scenic River corridor eligibility
- Old growth standards and direction

Chapter 2—Alternatives

Introduction

Chapter 2 describes the No Action Alternative (the 1990 Forest Plan) and four action alternatives. The five alternatives analyzed in detail are summarized briefly as part of this introduction. Chapter 2 displays, in comparative form, the predicted effects of the alternatives on the quality of the environment. Details are discussed in Chapter 3 (Affected Environment and Environmental Consequences). This summary provides a basis for choice among the alternatives. Summary tables showing how alternatives compare are presented near the end of this chapter. Following are brief descriptions of each alternative; more detailed descriptions are presented later in this chapter.

Alternative A (1990 Plan) would make no changes in management direction in the 1990 Amended Forest Plan, as amended through September 2005. Management Areas (MAs), projected resource management actions, and all other Plan components would remain unchanged. The 1990 Forest Plan, as amended, would continue to be implemented. This alternative is the No Action Alternative and serves as a baseline to which the following alternatives are compared. An updated version of the 1990 Amended Forest Plan, incorporating all amendments, is available at the following website: <http://www.fs.fed.us/r8/ouachita>.

Alternative B would make no major adjustments to management direction in the 1990 Amended Forest Plan, as amended through 2005. Changes would be limited to those needed to comply with pertinent changes in law and policy; update projections for acres of prescribed fire, thinning, and regeneration harvests; adjust the Forest Plan to the new model format; and make cross-country travel by motorized vehicle unsuitable; and remove obsolete or unnecessary direction.

Alternative C would place the most emphasis on ecosystem health. Management activities would focus on restoring and maintaining native pine-grass, oak woodland, and other fire and disturbance dependant ecosystems. Activities such as prescribed fire and thinning would be more intensive than the other alternatives. Three additions to existing wildernesses would be recommended: 620 acres to the Flatside Wilderness in Arkansas, 77 acres to the East Unit of Poteau Mountain Wilderness in Arkansas, and 1,096 acres to the Upper Kiamichi Wilderness in Oklahoma. Cross-country travel by motorized vehicles, including OHVs, would be unsuitable.

Alternative D would increase emphasis on recreation opportunities, scenery management, and wilderness designation, while focusing ecosystem health activities in support of wildlife based recreation. Compared to the 1990 Forest Plan (Alternative A), this alternative would maintain or make modest changes in projections for most forms of forest management, with increases in prescribed fire and thinning in MA 21-Old Growth Restoration (Pine-Grass Emphasis) and 22-Renewal of the Shortleaf Pine-Bluestem Ecosystem and Red-Cockaded Woodpecker Habitat, walk-in turkey hunting areas, and cooperative wildlife management areas. This alternative would not thin as many acres as Alternatives C or E. Recommended increases in wilderness designation would total approximately 30,100 acres, including the three additions described in Alternative C and three new areas: Brush Heap, Blue Mountain, and Irons Fork, all located in Arkansas. Alternative D would make cross-country travel by motorized vehicles, including OHVs, unsuitable but would differ from other alternatives by treating OHV-based retrieval of big game as a suitable use.

Alternative E would balance increased emphasis on recreation and ecosystem health with retention of practices that have proven effective over time by combining elements from Alternatives B, C, and D. This would include increased intensive management for native pine-grass, oak woodland, and other fire and disturbance dependant ecosystems. Activities such as prescribed fire and thinning would be more intensive than in Alternative B and more dispersed than in Alternative

D, but less intense than Alternative C. Recommended wilderness additions are the same as those in Alternative C. Cross-country travel by motorized vehicle would be unsuitable.

Alternative Development

Alternatives for the Revised Forest Plan were designed to respond to elements of the USDA Forest Service Strategic Plan for Fiscal Years 2004-2008 (<http://www.fs.fed.us/plan>). However, these alternatives address only those decisions that Forest Plans appropriately make (36 CFR Part 219), as described in Chapter 1; all other types of decisions are beyond the scope of the Forest Plan.

The Plan Revision Interdisciplinary (ID) Team developed a broad range of Forest Plan alternatives to address the significant issues. Seven draft alternatives were presented to the Forest Leadership Team (FLT) in January 2004. After review and discussion, the FLT directed the ID Team to carry forward three of the seven draft alternatives for detailed analysis and to merge two others into one. Two of the seven draft alternatives—the minimum level of management and the maximum production potential—were eliminated from detailed consideration and used only for analysis benchmarks. Another alternative was proposed by a citizen group, and several elements of the proposed alternative were included as elements within the range of alternatives considered in detail.

The FLT determined that four alternatives (plus the 1990 Forest Plan as the No Action Alternative) were sufficient to address the significant issues. Because the needed changes to the Forest Plan are modest, the complexity of the analysis and the number of alternatives required for this FEIS are less than those accompanying the 1986 Forest Plan and the 1990 Forest Plan. The range of alternatives considered in detail in this FEIS reflects the relatively modest need for change and the nature of the significant issues identified.

Direction Common to All Alternatives

A forest plan, like all National Forest management activity, must conform to established public policy expressed in Federal statutes, regulations, and administrative directives as well as applicable state laws and regulations. These themes are common to each alternative developed for Forest Plan revision. Each alternative considered in detail:

- Strives to strike a balance among the multiple uses that citizens have for their public lands and the many values they represent
- Maintains or enhances the diversity and quality of habitats needed to ensure the viability of all native plant and animal species that reside on or have important breeding habitat within the Ouachita National Forest (including all species listed as Threatened and Endangered that occur on the Forest)
- Provides for meeting or exceeding the guidelines presented by the Arkansas and Oklahoma Best Management Practices (BMPs) manuals for limiting pollution from non-point sources
- Directs that prescribed burns comply with state smoke management plans
- Protects significant heritage resources (historic and pre-historic)
- Identifies 55 to 57 percent of National Forest land as suitable for some form of timber production, said production to be guided by ecosystem management objectives
- Recommends that the Glover River be considered for designation as a Wild and Scenic River
- The four action alternatives also would treat cross-country motorized vehicle travel as unsuitable, with one exception for game retrieval in Alternative D

Management Setting Common to All Alternatives

All alternatives analyzed in detail in Chapter 3 considered ongoing resource management projects, permits, contracts, and other instruments for the use and occupancy as pre-existing actions. These “pre-existing actions” were considered part of the baseline in developing each alternative and were further included in analyzing effects in this FEIS and also as baseline for the Biological Assessment. The projected effects of these actions are part of the cumulative effects analyses documented in the FEIS and Biological Assessment for the Revised Forest Plan. Continued implementation of these pre-existing actions will not foreclose the ability to adopt any of the alternatives analyzed in detail in Chapter 3.

Major resource management projects that included timber harvest activities and may still have harvest activities incomplete are identified by name in Appendix B in Table B.46. Most of those projects also include other resource activities such as wildlife habitat improvements, timber stand improvements, site preparation activities, and prescribed burning which may not be fully implemented before the Revised Forest Plan goes into effect.

Other major resource management projects that contain *completed* timber harvest activities and may still have associated resource activities yet to be implemented. Several non-timber related projects may also have some activities not yet completed. All of these are identified by name in Appendix B in Table B.47, and B.48.

Consistency with the Renewable Resources Planning Act

National Forest Management Act regulations at 36 CFR 219.12(f)(6) direct that forest plans respond to and incorporate national program objectives developed in response to the Renewable Resource Planning Act (RPA). The last RPA Program was developed in 1995. The Government Performance and Results Act (GPRA) replaced the RPA Program. Currently, the Forest Service Strategic Plan (2004 Revision) provides national goals and objectives for the agency as required by the GPRA. The alternatives presented in this FEIS respond to these broad, strategic objectives.

Neither the current RPA Assessment nor the Forest Service Strategic Plan contain recommended output levels applicable to individual national forests. The Assessment does present national and regional analyses of the renewable resource situation, including projections of supply and demand for renewable resources. The Strategic Plan contains goals, objectives, outcomes, performance measures, and strategies that apply to all agency programs, including management of the National Forest System.

Alternatives Considered but Eliminated from Detailed Analysis

Possible alternative themes were outlined in the Notice of Intent published in the Federal Register in May 2002. These themes illustrated the range of alternatives that might be considered. The themes were modified based upon public comments. The current analysis focused on the question, “What components of existing management direction (Alternative A) need to change?” In that context, several possible alternatives, including the “minimum level of management” or “minimum amount of human management/maximum amount of natural forces” were outside the scope of the analysis because such alternatives would not have enabled the Forest Service to meet minimum management requirements for sustaining habitat for all native species and forest health. “Maximum timber production” was not considered an alternative to be analyzed in detail because it would have been inconsistent with the requirements for providing for multiple uses and would not meet the minimum management requirements for sustaining habitat for all native species.

The ID team also considered an alternative presented by the Sierra Club for the revised plans of the Ouachita and Ozark-St. Francis National Forests. The full text of the Sierra Club proposal is included in the administrative record with a more detailed rationale for not considering this alternative in detail. Some elements of the proposal were included in some alternatives; other elements either were beyond the scope of plan revision or were too vague. Brief responses to each point in the nine-point Sierra Club proposal follow:

- Wild and Scenic Rivers—all rivers eligible or already recommended for designation as National Wild and Scenic Rivers would remain so and would be protected within a Wild and Scenic River Corridor Management Area under all alternatives. The Forest Service does not have the authority to formally designate rivers as National Wild and Scenic Rivers, making it impossible to include this element of the Sierra Club alternative.
- Wilderness—RARE II areas and additions to existing wilderness were evaluated for all alternatives; however, merely conducting such an evaluation is not a logical part of a plan alternative.
- Large Conservation Areas (no logging or road construction on areas of up to 500,000 acres)—All alternatives treat more than 40 percent of the National Forest as unsuitable for timber production. Forty-three percent (732,590 acres) of the Ouachita National Forest is treated as unsuitable for timber production in the Selected Alternative. Substantial portions of the “unsuitable” land base occur in large blocks, and many of these areas will have not have roads constructed within them. The Sierra Club proposal itself (“areas of up to 500,000 acres”) is too vague to be considered part of an alternative considered in detail.
- Recreation—“emphasize recreation” is too vague to be considered part of an alternative considered in detail.
- Off-Highway Vehicles—the portion of this proposal having to do with treating cross-country travel by such vehicles as unsuitable has been incorporated in the action alternatives.
- Fire—the FEIS addresses the effects of prescribed fire.
- Natural Biodiversity—all timber and wildlife management activities conducted under the 1990 Forest Plan already “ensure that the native biodiversity of the [Ouachita National Forest] will be maintained and/or reestablished,” and this will not change, regardless of alternative.
- Forest Pests—the term “documented natural biodiversity” is vague, and this element could not be incorporated in any alternative. Provisions to minimize forest pest infestations; however, are included in all alternatives.
- Free Flowing Streams—a provision to discourage impoundments of free-flowing streams on National Forest System lands is included in the action alternatives.

During the 90-day comment period, a timber company owner suggested that the Forest Service develop a new alternative that would “consider the positive environmental health on air, water, soil, wildlife, trails, roads, healthy industries, positive economics and recreation purposes without any constraints placed on budgets, manpower or supervisor’s direction.” This alternative was not examined in detail because it contained too many parameters to incorporate into a reasonable alternative. Furthermore, alternatives unconstrained by budgets or manpower are inherently unreasonable, particularly in an environment where budgets and manpower are steadily declining. However, the parameters noted by the commenter were certainly taken into consideration in making the final selection of an alternative.

Alternatives Analyzed in Detail

Five alternatives were analyzed in detail. See Appendix B for a detailed description of the mathematical model (SPECTRUM) and socio-economic analysis used. Acreage allotted to management area varies little among alternatives. The range of alternatives considered in detail in

this FEIS appropriately reflects the relatively modest need for change and the nature of the significant issues identified. Nonetheless, substantial variation exists among alternatives in terms of projected management activities (e.g., prescribed burning, application of uneven-aged management, thinning acres), acres in the high SPB risk category, acres recommended for wilderness designation, acres in Fire Regime Condition Class 1 or 2, projected annual net revenue for the planning period, population response by terrestrial management indicator species, species viability scores, and OHV use direction. Each action alternative allocates lands and waters to the same set of management areas and, in almost every case, allocates the same lands to the same management areas (wilderness recommendations account for any differences). Alternative A (No Action Alternative) represents a continuation of the 1990 Forest Plan, as further amended. Alternative E was identified in the DEIS and is the agency's Selected Alternative for the 2005 Revised Forest Plan.

Management Areas

Management Areas (MA) for the Ouachita National Forest are geographically defined areas with unique characteristics, different desired conditions, and specific standards to guide project planning and implementation that supplement the forest-wide standards. In all alternatives except A (No Action Alternative), a slightly revised set of MAs and descriptions is used. The MAs for Alternative A are the same as the 1990 Forest Plan. Table 2.1 compares the MAs for the 1990 Forest Plan (Alternative A) to those used in the other alternatives.

Table 2.1 Management Areas for 1990 Plan Compared to Other Alternatives

Management Areas (MAs) for Alternatives B, C, D, and E	Management Areas (MAs) for Alternative A (1990 Forest Plan)
MA 1: Wilderness (1a); Poteau Mountain (1b), Recommended Wilderness Addition (1c)	MA 1: Wilderness; MA 1a: Poteau Mountain
MA 2: Special Interest Areas: Scenic Areas (2a); Watchable Wildlife Areas (2b); Rich Mountain and South Fourche Botanical Areas (2c); Rich Mountain Recreation Area (2d)	MA 2: Scenic Areas
MA 3: Developed Recreation Areas	MA 3: Recreation Sites
MA 4: Research Natural Areas and National Natural Landmarks	MA 4: Research Natural Areas and National Natural Landmarks
MA 5: Experimental Forests	MA 5: Alum Creek and Crossett Experimental Forest
MA 6: Rare Upland Communities	MA 6: Threatened, Endangered or Sensitive Species Habitat
MA 7: Ouachita Seed Orchard	MA 7: Ouachita Seed Orchard
MA 8: Administrative Sites/Special Uses	MA 8: Administrative Sites
MA 9: Water and Riparian Communities	MA 9: Water and Riparian Areas
MA 10: Reserved	MA 10: Non-Forest
MA 11: Reserved	MA 11: Not Appropriate for Timber Production
MA 12: Reserved	MA 12: Unproductive
MA 13: Reserved	MA 13: Ouachita Mountains, Unsuitable Lands Based on Other Resource Coordination
MA 14: Ouachita Mountains, Habitat Diversity Emphasis	MA 14: Ouachita Mountains, Lands Suitable for Timber Production
MA 15: West Gulf Coastal Plain, Habitat Diversity Emphasis	MA 15: Coastal Plain
MA 16: Lands Surrounding Lake Ouachita and Broken Bow Lake	MA 16: Lake Ouachita
MA 17: Semi Primitive	MA 17: Semi-Primitive Motorized
MA 18: Reserved (scenery management addressed Forest-wide)	MA 18: Visually Sensitive Foreground Areas, Roads And Trails
MA 19: Winding Stair Mountain National Recreation Area (and Associated Non-Wilderness Designations)	MA 19: Winding Stair Mountain National Recreation and Wilderness Area (OK) and Rich Mountain Recreation and Black Fork Wilderness Area (AR)
MA 20: Wild and Scenic River Corridors	MA 20: Wild and Scenic River Corridors
MA 21: Old Growth Restoration	MA 21: Old Growth Restoration
MA 22: Renewal of the Shortleaf Pine/Bluestem Grass Ecosystem and Red-cockaded Woodpecker Habitat	MA 22: Renewal of the Shortleaf Pine/Bluestem Grass Ecosystem And Red-cockaded Woodpecker Habitat
MA 23: Reserved – Broken Bow Lake MA was incorporated with Lake Ouachita MA in MA 16	MA 23: Broken Bow Lake (NF lands above)

Alternative A

Alternative A (1990 Amended Plan) would make no changes in management direction in the 1990 Amended Forest Plan, as amended through 2005. Management Areas (MAs), projected resource management actions, and all other Plan components would remain unchanged. The 1990 Forest Plan, as amended, would continue to be implemented. This alternative is the No Action Alternative and serves as a baseline to which the other alternatives are compared.

Ecosystem Health and Sustainability: Current ecosystem management priorities and emphasis would continue. The present emphasis on pine-oak community health and health in communities susceptible to oak decline and other threats to oak-dominated ecosystems would be maintained. These communities would continue to be susceptible to oak decline and southern pine beetle outbreaks. Prescribed burning would treat an average of 68,000 acres per year.

Land Allocation: Current land allocations to MAs would be maintained. No new wilderness recommendations would be made. Lands classed as suitable for timber production would equal 1,019,694 acres.

Public Access and Recreation: Current standards for public access and recreation opportunities would be retained. The Visual Quality Objective system would be retained for visual resource management.

Relationship to Communities: The Forest would continue to seek to improve economic and other relationships with nearby communities.

Alternative B

Alternative B would make no major adjustments to management direction in the 1990 Amended Forest Plan, as amended through 2005. Changes would be limited to those needed to comply with pertinent changes in law and policy; update projections for acres of prescribed burning, thinning, and regeneration harvests; adjust the Forest Plan to the new model format; make cross-country travel by motorized vehicle unsuitable; and remove obsolete or unnecessary direction. Compared to the 1990 Forest Plan (Alternative A), this alternative would feature a slightly increased emphasis on ecosystem health and sustainability objectives, including program adjustments to respond to the Healthy Forest Initiative and the 2004 revision of the Agency's Strategic Plan.

Ecosystem Health and Sustainability: Current ecosystem management priorities would continue, augmented by a small increase in emphasis on ecosystem health in systems susceptible to oak decline or catastrophic wildland fire. Prescribed fire acres would increase from 68,000 average annual acres to approximately 125,000 average annual acres.

Land Allocation: Streamside Management Areas would be maintained, with limited vegetative management to meet ecosystem health objectives allowed. Lands classed as suitable for timber production would equal 1,019,694 acres.

Public Access and Recreation: Cross-country travel by motorized vehicles would not be suitable. The Visual Quality Objective system would be retained for visual resource management.

Relationship to Communities: The Forest would continue to seek to improve economic relationships with communities and to seek other opportunities for coordination, including addressing impacts and opportunities represented by the Healthy Forest Initiative.

Alternative C

Alternative C would place the most emphasis on active management for ecosystem health. Management activities would focus on restoring and maintaining native pine-grass, oak woodland, and other fire and disturbance dependent ecosystems. Activities such as prescribed burning and thinning would be more intensive than the other alternatives. Compared to the 1990 Amended Forest Plan (Alternative A), this alternative would place greater emphasis on actively managing for improved ecosystem health and sustainability. These objectives would be achieved by aggressively restoring and maintaining native pine-grass, oak woodland, and other fire-adapted ecosystems.

Ecosystem Health and Sustainability: Vegetation management would emphasize restoration and maintenance of lower density, insect outbreak and disease-resistant forest and woodland ecosystems. Tools for improving forest health, particularly areas at risk of disease, pest, and/or invasive species infestation (southern pine beetle, oak decline, non-native invasive plants) would include a mix of silvicultural techniques, prescribed fire, and minimal pesticide use. Activities such as prescribed burning and thinning would be more intensive than the other alternatives especially within pine-oak and some hardwood-dominated communities. Prescribed fire acres would increase from 68,000 average annual acres to approximately 250,000 average annual acres. Acres estimated to be susceptible to southern pine beetle infestation would decline from 272,000 to 66,000.

Land Allocation: Three additions to existing wildernesses would be recommended: 620 acres to the Flatside Wilderness in Arkansas, 77 acres to the East Unit of Poteau Mountain Wilderness in Arkansas, and 1,096 acres to the Upper Kiamichi Wilderness in Oklahoma. Streamside Management Areas would be maintained, with limited vegetative management to meet ecosystem health objectives allowed. Lands classed as suitable for timber production would equal 1,017,901 acres.

Public Access and Recreation: Open road density objectives would be modified to reflect a more realistic approach than the 1990 Forest Plan to areas that have a high density of non-National Forest System roads. Other access would be as in the 1990 Forest Plan, except that cross-country motorized access would not be suitable, and the Forest would move, within the next four years, to a system of designated routes. The Scenery Management System (SMS) would be implemented, with greater emphasis placed in heavily used traffic corridors and lakes.

Relationship to Communities: This alternative would produce more timber, reduce fuels in the wildland-urban interface, and produce more smoke related short-term impacts. The Forest would continue to seek to improve economic relationships with communities and to seek other opportunities for coordination, including addressing opportunities represented in the Healthy Forest Initiative.

Alternative D

Compared to the 1990 Forest Plan (Alternative A), this alternative would maintain or make modest changes in projections for most forms of forest management, with increases in prescribed burning and thinning in MA 21-Old Growth Restoration (Pine-Grass Emphasis) and 22-Renewal of the Shortleaf Pine-Bluestem Ecosystem and Red-Cockaded Woodpecker Habitat, walk-in turkey hunting areas, and cooperative wildlife management areas. This alternative would not thin as many acres as Alternatives C or E. More emphasis would be placed on scenery enhancement in vistas along travel corridors and areas adjacent to lakes. Program adjustments would be made to reflect the Healthy Forest Initiative, including addressing fuel levels near communities at risk.

Ecosystem Health and Sustainability: Vegetation management would emphasize attaining minimum levels of habitat needed for species viability. “Watchable wildlife,” including important birding areas, would be promoted. Restoration of native pine-grass and oak woodland ecosystems would be expanded in support of wildlife management objectives in walk-in turkey areas and wildlife management areas to support hunting-based recreation. Prescribed fire acres would increase from 68,000 average annual acres to approximately 100,000 average annual acres. Acres estimated to be susceptible to southern pine beetle infestation would decline from 272,000 to 90,000.

Land Allocation: New recommended wilderness areas in Arkansas would include Brush Heap, Blue Mountain, and Irons Fork. Additions to Flatside Wilderness, Upper Kiamichi Wilderness, and an addition to the East Unit of Poteau Mountain Wilderness in Arkansas would also be recommended. Streamside Management Areas would be maintained with limited vegetative management to meet ecosystem health objectives allowed. Lands classed as suitable for timber production would equal 989,567 acres.

Public Access and Recreation: Open road density objectives would be modified to reflect a more realistic approach to areas that have a high density of non-National Forest System roads. Cross-country motorized vehicle access would not be suitable, except for cross-country travel for retrieval of big game. The Scenery Management System (SMS) would be implemented, with greater emphasis placed in heavily used traffic corridors and lakes. Vegetation management would promote “watchable wildlife,” in appropriate areas including important birding areas.

Relationship to Communities: This alternative would produce a slight increase in positive economic impacts related to recreation and tourism and a slight decrease in positive impacts related to timber harvesting. The Forest would continue to seek to improve economic relationships with communities and to seek other opportunities for coordination, including opportunities presented by the Healthy Forest Initiative.

Alternative E

Compared to Alternatives A, B, and D, this alternative would place greater emphasis on actively managing for improved ecosystem health and sustainability. These objectives would be achieved by increasing the rate of restoration and maintenance of fire-adapted systems such as native pine-grass and oak woodland communities, but not at the rates or intensity proposed under Alternative C

Ecosystem Health and Sustainability: Prescribed fire acres would increase from 68,000 average annual acres to approximately 180,000 average annual acres. Major ecological systems and rare upland communities would receive increased management to enhance ecosystem health and species viability. Acres estimated to be susceptible to southern pine beetle infestation would decline from 272,000 to 63,000.

Land Allocation: Three additions to existing wildernesses would be recommended: 620 acres to the Flatside Wilderness in Arkansas, 77 acres to the East Unit of Poteau Mountain Wilderness in Arkansas, and 1,096 acres to the Upper Kiamichi Wilderness in Oklahoma. Streamside Management Areas would be maintained with limited vegetative management to meet ecosystem health objectives allowed. Lands classed as suitable for timber production would equal 1,016,228 acres.

Public Access and Recreation: Open road density objectives would be modified to reflect a more realistic approach to areas that have a high density of non-National Forest System roads. Cross-country access by motorized vehicles would be unsuitable. The Scenery Management System (SMS) would be implemented, with greater emphasis placed in heavily used traffic corridors and lakes. Management for scenic integrity may affect prescribed fire locations. Other vegetation management would be visually mitigated. Vegetation management would promote “watchable wildlife,” in appropriate areas including important birding areas.

Relationship to Communities: This alternative would produce more timber, reduce fuels in the wildland-urban interface, and produce more smoke related short-term impacts, but less than Alternative C. The Forest would continue to seek to improve economic relationships with communities and to seek other opportunities for coordination, including opportunities presented by the Healthy Forest Initiative.

The remaining tables in this chapter provide summary comparisons of alternatives using various measures.

Table 2.2 Summary Comparison of Alternatives

Response Measure	Alternative				
	A No Action	B	C	D	E Selected
Acres in Fire Regime 1, Condition Class 1 or 2, 1st 10-Year Period	266,000	122,000	535,000	283,000	291,000
Acres in southern pine beetle Risk Category 1, 1st 10-Year Period	272,000	275,000	66,000	90,000	63,000
Acres of hardwood forest in high risk categories, 1st 10-Year Period	91,000	91,000	7,000	91,000	84,000
Acres Suitable for Timber Production	1,019,694	1,019,694	1,017,901	989,567	1,016,228
Acres designated/recommended as wilderness	64,469	64,469	66,262	94,596	66,262
Acres in Management Area 9, Water and Riparian	278,284	278,284	278,284	278,284	278,284
Uneven-aged management emphasis (total area in acres)	250,000	110,000	100,000	200,000	125,000
Projected average annual thinning acres, 1st 10-Year Period	26,226	17,400	51,700	27,700	28,500
Prescribed fire (projected total average annual acres)	68,000	125,000	250,000	100,000	180,000
Acres of mast producing hardwood	297.5	297.5	297.5	297.5	297.5
Allowable Sale Quantity (MMCF), Average Annual	26.2	26.2	33.0	25.0	27.0
Employment Average Annual 1st 10-year period	3,894	3,796	3,941	3,842	3,898
Labor Income (\$ million)	107.2	103.8	109.4	105.5	107.6
Annual Budget (\$ Million)	22.7	22.8	23.7	22.9	23.1
Annual Net Revenue (x 1\$ Million) 1st 10-Year Period	6.0	6.5	1.8	5.5	6.8
Long-Term Sustained Yield (MMCF)	50.0	57.8	73.7	63.2	69.3

Table 2.3 Terrestrial Habitat Capability (Animals per Square Mile) for MIS by Alternative after 10 Years and 50 Years of Forest Plan Implementation

		Scarlet Tanager		Prairie Warbler		Pileated Woodpecker		Eastern Wild Turkey		Northern Bobwhite		White-tailed Deer	
		10 yr	50 yr	10 yr	50 yr	10 yr	50 yr	10 yr	50 yr	10 yr	50 yr	10 yr	50 yr
Alternative	A	24.9	27.1	39.2	49.8	18.6	26.0	3.4	3.7	35.2	56.7	12.8	16.7
	B	25.2	27.5	30.9	51.4	18.7	26.7	2.7	3.1	29.1	54.3	13.2	18.3
	C	24.1	25.7	72.4	99.9	14.3	18.5	5.9	7.0	42.7	77.5	22.7	30.0
	D	24.9	26.8	40.1	65.9	17.8	23.8	3.2	3.4	37.8	69.2	13.4	19.9
	E	25.0	27.3	40.5	59.4	17.8	25.3	3.3	3.9	36.6	70.0	13.7	20.2

Comparison of Alternatives by Issue

Ecosystem health and sustainability is one of the major, broad issues identified for this Revised Forest Plan. Without a healthy and sustainable forest, most other opportunities and resource values that are forest-dependent, such as recreational opportunity, wildlife, timber harvest, and clean water would be jeopardized or in marked decline. Table 2.4 includes indicators used to measure forest health and sustainability by alternative: number of species with viability scores of “good” to “very good”; acres in Fire Regime 1, Condition Class 1 or 2; acres at risk for southern pine beetle outbreaks, and acres of hardwood in high-risk categories. Alternative C has the highest number of species with viability scores of “good” to “very good,” closely followed by Alternative E. Due to its more aggressive treatment regime, Alternative C would have the most acres in Fire Regime 1, Condition Class 1 or 2 and the fewest hardwood acres rated as “high risk.” Alternatives C and E have the fewest acres projected to be susceptible to southern pine beetle infestation. Considering all factors, Alternative C could be considered the “maximum health” alternative.

Table 2.4 Issue Category: Ecosystem Health and Sustainability

Issue Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Species Viability (numbers of species in good to very good condition of 80 species forest-wide)	27	42	59	39	53
Acres in Fire Regime 1, Condition Class 1 or 2, 1st 10-Year Period	266,000	122,000	535,000	283,000	291,000
Acres in southern pine beetle Risk Category 1, 1st 10-Year Period	272,000	275,000	66,000	90,000	63,000
Acres of Hardwood Forest in High Risk Categories 1st 10-Year Period	91,000	91,000	7,000	91,000	84,000

Measures used to address land use designation issues and describe the allocations of National Forest System lands are shown in Table 2.5 and include: acres of existing and recommended wilderness, water and riparian areas (MA 9), and acres suitable for timber production. Alternative D recommends the addition of the most acres for wilderness (approximately 30,100 acres). All alternatives maintain nearly equal protections for water and riparian areas and assign the same acreage to Management Area 9. Acres suitable for timber production also remain fairly constant, although the wilderness recommendations cause minor decreases in Alternatives C and E and by reduction of acres suitable for timber production, reflect the larger wilderness recommendation of Alternative D.

Table 2.5 Issue Category: Land Use Designations

Issue Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Acres of Wilderness and Recommended Wilderness	64,469	64,469	66,262	94,596	66,262
Acres in Management Area 9, Water and Riparian	278,284	278,284	278,284	278,284	278,284
Acres Suitable for Timber Production	1,019,694	1,019,694	1,017,901	989,567	1,016,228

The issue of public access and recreational activities is addressed in Table 2.6, with measures to reflect changes in the transportation system, OHV use, quality of non-motorized opportunities, and number of deer, turkey, and quail per square mile. Road density is a key factor in measuring disturbance to wildlife. Under Alternatives C, D, and E, road density standards would be imposed that clarify how the Forest would undertake to limit open road density for wildlife purposes. Under Alternatives B, C, D, and E, cross-country travel by motorized vehicles would not be suitable, while under Alternative A, such travel would remain suitable. Under the action alternatives, where OHV and other motorized vehicle use would be projected to move from cross-country travel to designated routes within four years, the quality of non-motorized opportunities should increase, because noise interference by vehicles would be reduced. As hunting is a recreational activity, number of game species is an important measure. Because it is the alternative with the most intensive management, Alternative C, has the highest projected density of game animals (deer, turkey, and Northern bobwhite).

Table 2.6 Issue Category: Public Access and Recreational Activities

Issue Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Transportation System	Current	Current	New road density objective	New road density objective	New road density objective
Off Highway Vehicle Use (for cross-country travel)	Suitable	Unsuitable	Unsuitable	Unsuitable (except for large game retrieval)	Unsuitable
Quality of non-motorized opportunities	Current	Higher	Higher	Higher	Higher
Deer per square mile	12.8	13.2	22.7	13.4	13.7
Northern bobwhite per square mile	35.2	29.1	42.7	37.8	36.6
Eastern Wild Turkey per square mile	3.4	2.7	5.9	3.2	3.3

Table 2.7 provides some measures that compare the relationship of the Forest to communities. Measures include the projected timber harvest volume and the economic values associated with timber harvest. All measures are reported for the first ten years of Forest Plan implementation and assume, for comparative purposes, that timber sales equal the allowable sale quantity. Although timber harvest volume would be greatest under Alternative C, when costs are deducted, the alternative with the greatest net revenue would be Alternative E. Average annual employment and labor income from that employment would be greatest under Alternative C, followed closely by Alternatives A, D, and E.

Table 2.7 Issue Category: Relationship of the National Forest to Communities

Issue Measure	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E
Allowable Sale Quantity (MMCF) 1 st 10-year Period	261.8	261.8	330.0	250.0	270.0
Annual Net Revenue (\$ Million) 1 st 10-Year Period	6.0	6.5	1.8	5.5	6.8
Employment Avg. Annual 1 st 10-year Period	3,894	3,796	3,941	3,842	3,898
Annual Labor Income (\$ Million)	107.2	103.8	109.4	105.5	107.6