

***Ozark-St. Francis  
National Forests  
Monitoring & Evaluation Report  
2001***



**CERTIFICATION**

I have evaluated the monitoring results and recommendations in this Report. I have directed the Action Plans developed to respond to these recommendations be implemented according to the time frames indicated, unless new information or changed resource conditions warrant otherwise. I have considered funding requirements in the budget necessary to implement these actions.

When all recommended changes to the Forest Plan have been implemented, the Plan will be sufficient unless ongoing monitoring and evaluation identify further need for change.

/s/ Charles S. Richmond  
CHARLES S. RICHMOND  
Forest Supervisor

4/5/02  
DATE

## Executive Summary

Several items from the 2000 Monitoring and Evaluation Report were completed in 2001:

- The St. Francis National Forest prepared an Environmental Assessment for development of a State Park.
- Fire planners have assessed prescribed burning needs. It was determined that a Forest Plan amendment is not needed.
- Two plan amendments were completed. Amendment 10 allows access to new campgrounds in Sam's Throne Special Interest Area. Amendment 11 allocates 300 acres of Management Area 8 to Management Area 3 on the St. Francis National Forest for the State Park proposal.

Items in prior Action Plans that have still not been completed:

- Limits of Acceptable Change standards need to be applied on several districts.
- Rotary Ann and Cove Lake facility designs are being finalized for contracting in FY 2002.
- A fisheries assessment and management plan for the forest has been started.
- Future management of proposed Special Interest Areas needs to be resolved.

Personnel shortages and shifting priorities have caused these items to be delayed.

The 1999 M & E report predicted that amendments to the Forest Plan would be necessary to change or clarify language on biological evaluation of PETS and MIS. As a result of a lawsuit, a strategy was completed in 2001. With the start of the Forest Plan Revision, an additional amendment may not be necessary at this time. An amendment to resolve proposed Special Interest Areas is delayed until the Roadless Area Policy is resolved, since many of the proposed Special Interest Areas coincide with the roadless areas.

Due to the increase in "oak decline," the forest has developed a strategy for oak sustainability and hired a full-time Oak Sustainability Coordinator.

OZARK-ST. FRANCIS NATIONAL FORESTS

FOREST PLAN MONITORING AND EVALUATION PLAN

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# I. Introduction

This report documents Forest Plan monitoring and evaluation for Fiscal Year 2001 (October 1, 2000 - September 30, 2001). Annually, the Ozark-St. Francis National Forests review and evaluate programs and projects to determine if these activities met Forest Land Resource Management Plan (LRMP) direction. This review by Forest Staff and District Rangers determines if we achieve Forest Plan goals and objectives, we properly implement management requirements, and environmental effects occur as predicted in the Plan.

**Section II** presents monitoring and evaluation results identified in the Monitoring and Evaluation Schedule in Chapter 5 of the Forest Plan. This section is organized by Program area and items to be monitored under each program. The information includes:--

- **The item being monitored.**
- **Variance Allowed** - The threshold of change allowed for the project or program from the direction set in the Forest Plan that, if exceeded, would call for further action.
- **Findings** - Documentation of the monitoring results.
- **Recommendations** - The actions that the Forest Planning Staff recommends to the Forest Supervisor and Leadership Team after evaluation of the Findings. The Forest Leadership Team then either approves or changes the recommendations. Possible recommendations include: (1) none, (2) increased effort to achieve the objective or comply with management direction and Standards and Guidelines, (3) amend the Forest Plan to clarify or improve resource management, or (4) further study to determine the best action to take.

**Section II** also presents monitoring and evaluation results of Forest Plan Management Requirements. The information includes --

- The complete **Management Requirement** as it is shown in the Forest Plan.
- **Findings** - The documented results of the monitoring efforts from previous year.
- **Recommendation** - Recommended action to be taken by the Forest Supervisor to address results of evaluating the findings in previous year.

In addition, the Forest Plan lists a series of goals or targets for various resources. **Section II** lists these goals, the accomplishment and recommendation to either change these Plan projections or to meet them in the future.

On July 13, 2000, the Sierra Club, et al., filed a lawsuit in Region 8 of the Forest Service alleging violation of several laws. The controversy in this lawsuit centered on monitoring of Management Indicator Species (MIS).

The lawsuit was settled on May 16, 2001, and findings and recommendations were compiled in a report. This report divided Management Indicator Species into these categories:

1. Demand Species, which provide important recreational and/or economic values.
2. Species of Concern, for which there is a concern about population numbers.
3. Ecological Indicators, which are tied to a particular element of biological diversity and serve as surrogates for other species associated with that element.

**Section III** is an action plan for items that require action.

## II. Detailed Monitoring and Evaluation Results and Report Findings

### A. Ecosystem Condition, Health, and Sustainability

The subject of Ecosystem Condition, Health, and Sustainability covers a range of topics including terrestrial wildlife and plant habitats and populations, forest and non-forest land cover, ecosystem and watershed conditions, aquatic resources, and forest health issues related to forest insects, diseases, and disturbance factors. The sustainability of ecosystems and the components of ecosystems are addressed within this subject. The Forest Plan projected a number of accomplishments in various resource activities. During Plan revision, there will probably be a greater emphasis on meeting ecological needs rather than a numerical target, such as wildlife openings.

#### 1. Wildlife and Fish

##### Mammals

- a) **Species:** White-tailed Deer (LRMP, Chapter 5) (MIS-Demand Species)  
**Variance allowed:** A white-tailed deer population of 10,000 or less, forest-wide.  
**Findings:** Harvest data on the Wildlife Management Areas (WMAs) on the Ozark-St. Francis from 1975 - 2000 reflects a stable population. However, because of changes in season length and bag limits over the years, it makes it difficult to develop a clear picture of the deer population. Incidental observations for field biologists from Game & Fish and Forest Service would indicate a lower than normal population. In addition, it is not known what impact the oak decline problem will have on deer habitat.  
**Recommendation:** Keep as an indicator species. Create more early seral habitat. Monitor oak decline impacts. Reinitiate deer spotlight surveys on the forest and continue to monitor deer populations and habitat condition.
- b) **Species:** Indiana and Gray Bats (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** An Indiana Bat population of 400 or less; a Gray Bat population of 200,000 or less, forest-wide.  
**Findings:** Bat populations are above thresholds. Annual monitoring indicates stable or increasing populations of Indiana and Gray Bat populations.  
**Recommendation:** None.
- c) **Species:** Gray Squirrel (LRMP, Chapter 5) (MIS-Demand Species)  
**Variance allowed:** A gray squirrel population of 200,000 or less, forest-wide.  
**Findings:** Squirrel populations are dependant upon mast crops and tend to increase in years that have good mast crops and decrease in years with bad mast crops. FY 2001 is a fair mast year. The increasing age-class distribution on the Ozark-St. Francis represents improved habitat condition for this species, and its population was within the threshold in FY 2001. ComPATs computer model shows increasing squirrel habitat capability. Not sure of impacts from oak decline.  
**Recommendation:** None.

- d) **Species:** Black Bear (LRMP, Chapter 5) (MIS-Demand Species)  
**Variance allowed:** A bear population of 60 or less, forest-wide.  
**Findings:** Ricky Eastridge, Arkansas Game and Fish Commission (AG&FC) Bear Specialist, indicates the bear population is above 2,000 and growing, which is well above threshold levels. Bear harvest was at a high of 210 for the Ozark Zone.  
**Recommendation:** None.

## Birds

- e) **Species:** Wild Turkey (LRMP, Chapter 5) (MIS-Demand Species)  
**Variance allowed:** A turkey population of 8,000 or less, forest-wide.  
**Findings:** Monitoring of the Arkansas Game and Fish Commission harvest records from 1975 to present show a generally increasing trend for the State as a whole as well as the Forest Service WMAs. The State's Brood Survey for 2001 would indicate an increase in the population for 2002. The impact from oak decline is not known; however, the loss of oak will have a negative impact.  
**Recommendation:** None.
- f) **Species:** Pileated Woodpecker (LRMP, Chapter 5) (MIS-Ecological Indicator)  
**Variance allowed:** A population of 3,800 or less, forest-wide.  
**Findings:** Annual monitoring and breeding bird surveys done on the Forest show that Pileated woodpeckers are common and increasing on the Forest. This includes point counts, Christmas bird counts, migration counts and biological evaluation field notes. Oak decline will temporarily improve habitat.  
**Recommendation:** None.
- g) **Species:** Rufous-Crowned Sparrow (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** A decline in population over the past three years.  
**Findings:** This species is extremely rare and found only in a small area of Mount Magazine in very small numbers. Numbers have remained fairly constant since 1972.  
**Recommendation:** None.
- h) **Species:** Yellow-Breasted Chat (LRMP, Chapter 5) (MIS-Ecological Indicator)  
**Variance allowed:** A decline in the population for three consecutive years.  
**Findings:** Annual monitoring and breeding bird survey indicate a generally stable trend in Yellow Breasted Chat populations. Habitat for this species appears to be declining due to decreasing timber management activities. However, oak decline could increase habitat for this species.  
**Recommendation:** None.
- i) **Species:** Red-Shouldered Hawk (LRMP, Chapter 5) (MIS-Ecological Indicator)  
**Variance allowed:** A decline in the population for three consecutive years.  
**Findings:** Red-Shouldered Hawks population numbers are relatively low but stable/slightly increasing on the forest.  
**Recommendation:** None.

## Fish

- j) **Species:** Smallmouth Bass (LRMP, Chapter 5) (MIS-Demand Species)  
**Variance allowed:** Sustained decline in water quality or population for three years.  
**Findings:** No water problems have been identified. Monitoring indicates excellent habitat conditions. Several size classes have been observed, indicating good reproduction and recruitment of young.  
**Recommendation:** None.
- k) **Species:** Big Eyed Shiner, Ozark Minnow, Creek Chub (LRMP, Chapter 5) (MIS-Ecological Indicator)  
**Variance allowed:** Water quality or population for three years.  
**Findings:** Water quality on the forest has remained in a high quality condition. Population trends for these three species remain generally stable or slightly increasing.  
**Recommendation:** None.

## Plants

- l) **Species:** Ginseng (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** A 10% decline in population or suitable habitat.  
**Findings:** Illegal collection continues. Based on field observations, there is an indication the population is decreasing. Permanent plots were established; however, some of them have been illegally harvested.  
**Recommendation:** None.
- m) **Species:** Alabama Snowreath (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** A 10% decline in population.  
**Findings:** Based on monitoring of the three known populations on the forest, populations appear to be stable. Permanent monitoring stations have been developed.  
**Recommendation:** None.
- n) **Species:** Ozark Chinquapin (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** A 10% decline in population.  
**Findings:** Population appears to be widespread and stable. Impacted by the Chestnut Blight.  
**Recommendation:** None.
- o) **Species:** Climbing Magnolia (LRMP, Chapter 5) (MIS-Species of Concern)  
**Variance allowed:** A 10% decline in population.  
**Findings:** Generally found throughout the St. Francis National Forest. Appears to be a stable population.  
**Recommendation:** None.

- p) **Management Requirement:** Develop and maintain at least four 1-5 acre openings, two permanent water sources, and 20% mast component (in pine types) per 640 acres.  
**Findings:** Ranger Districts are complying with this requirement as funding allows.  
**Recommendation:** None.
- q) **Management Requirement:** Apply old growth prescriptions to about 13% of the Forests.  
**Findings:** In 1997, the Region published new guidelines for old growth management, "Guidance for Conserving and Restoring Old-Growth Forest Communities on National Forests in the Southern Region," Forestry Report R8-FR62. The Forest Plan called for approximately 13% (150,000 acres) of old growth prescriptions to be applied during the current planning period. The CISC database identifies 71,760 acres under old growth management. Coupled with the acres in wilderness and special interest areas the Forest has met this goal.  
**Recommendation:** None.
- r) **Management Requirement:** Minimize disturbance to nesting turkeys during the peak nesting season.  
**Findings:** Progress is being made in reducing disturbance.  
**Recommendation:** None.
- s) **Management Requirement:** Develop a plan in cooperation with the AG&FC to manage fisheries and develop fisheries management direction for ponds and lakes larger than one surface acre and six feet deep.  
**Findings:** Individual lake management plans have been developed for several of the Forests' larger lakes. Management plans include information on fish species occurrence, relative abundance and sizes, and recommendation for future stocking, habitat management and regulation changes. A forest-wide plan as been started, which includes streams..  
**Recommendation:** None.
- t) **Management Requirement:** Manipulate water levels, fertilize and control aquatic vegetation and install fish structures to improve fisheries habitat.  
**Findings:** Ranger Districts are complying with this requirement.  
**Recommendation:** None.
- u) **Management Requirement:** Identify and protect threatened, endangered, and sensitive plants and animals and manage habitats.  
**Findings:** Sensitive species were protected through Biological Evaluation and management decisions. Forest will develop conservation strategy assessments and agreements for PETS. Ranger Districts are complying with requirements for protecting and managing T&E species and habitats. Formal consultation with the U.S. Fish and Wildlife Service (USFWS) on the effects of forest management on Indiana Bats was completed during 1998. The USFWS's opinion was that continued management under the current Forest Plan would not jeopardize the continued existence of the Indiana Bat.  
**Recommendation:** None.

- v) **Plan Goal:** Prescribed Burning  
**Accomplished:** The districts burned 7,073 acres in 2001 for wildlife improvements. The Plan projects 600 - 1,000 acres per year, which is lower than ecological needs.  
**Recommendation:** None.
- w) **Plan Goal:** Wildlife Opening Maintenance  
**Accomplished:** 665 acres of wildlife openings were maintained in 2001. The Plan projects 240 acres per year.  
**Recommendation:** None.
- x) **Plan Goal:** Food Plot Maintenance  
**Accomplished:** 1,012 acres of food plots were maintained in FY 2001. The Plan projects 30 acres per year, which is lower than ecological needs.  
**Recommendation:** None.
- y) **Plan Goal:** Wildlife Opening Development  
**Accomplished:** 12 acres of wildlife openings were developed in FY 2001. The Plan projects 0 - 40 acres per year.  
**Recommendation:** None.
- z) **Plan Goal:** Food Plot Development  
**Accomplished:** No food plots were developed in FY 2001. The Plan projects 0 - 40 acres per year.  
**Recommendation:** None.
- aa) **Plan Goal:** Seeding and Planting  
**Accomplished:** 265 acres were seeded and planted in FY 2001. The Plan projects 0 - 40 acres per year.  
**Recommendation:** None.
- bb) **Plan Goal:** Wildlife Stand Improvement  
**Accomplished:** 228 acres were improved. The Plan projects 100 - 300 acres per year.  
**Recommendation:** None.
- cc) **Plan Goal:** Pond Construction  
**Accomplished:** 47 ponds were completed. The Plan projects 0 - 50 ponds per year.  
**Recommendation:** None.
- dd) **Plan Goal:** Fish Cover Establishment  
**Accomplished:** No structures were completed. The Plan projects 10 structures per year.  
**Recommendation:** None.

- ee) **Plan Goal:** Non-structural Fish Habitat Improvement  
**Accomplished:** 365 acres of habitat improvement were completed. Six miles of stream improvement on the Boston Mountain district. The Plan projects 120 acres per year.  
**Recommendation:** None.
- ff) **Plan Goal:** Wildlife Improvement Projects to be added  
**Accomplished:** The Plan is not applicable to several wildlife improvement projects.  
**Recommendation:** The Plan revision needs to identify wildlife cover structures; nest structures; habitat improvements for sensitive species; mid-story removal and habitat restoration (Savanna & Glade).

## 2. Range

- a) **Item:** Grazing Capacity (LRMP, Chapter 5)  
**Variance allowed:** 10% or less reduction in estimated stocking rate.  
**Findings:** All allotments stocked within grazing capacity. Demand for grazing has been declining.  
**Recommendation:** None.
- b) **Item:** Range Condition & Trend (LRMP, Chapter 5)  
**Variance allowed:** Any major changes in condition, overgrazing, or unacceptable soil disturbance.  
**Findings:** No major changes occurred in FY 2001.  
**Recommendation:** None.
- c) **Management Requirement:** Manage range program to maintain or enhance resource conditions.  
**Findings:** Districts have indicated no significant problems. Districts have been checking for allotments that meet minimum use criteria and have placed several allotments in inactive status in FY 2001.  
**Recommendation:** None.
- d) **Plan Goal:** Prescribed Burning for Forage Improvement  
**Accomplished:** The districts burned 0 acres for forage improvement in FY 2001. The Plan projects 2,000 acres per year.  
**Recommendation:** None.
- e) **Plan Goal:** Bush-hogging for Range Improvement  
**Accomplished:** 690 acres were bush-hogged by permittees as a term of their contract. The Plan projects 2,000 acres per year, which is higher than needed.  
**Recommendation:** None.
- f) **Plan Goal:** Pasture Fertilization  
**Accomplished:** Permittees fertilized 490 acres. The Plan projects 1,000 acres per year, which is higher than needed.  
**Recommendation:** None.

- g) **Plan Goal:** Seeding Pastures for Forage Improvement  
**Accomplished:** 105 acres of pasture were seeded for forage improvement. The Plan projects to seed 1,000 acres per year for forage improvement.  
**Recommendation:** None.
- h) **Plan Goal:** Fencing  
**Accomplished:** 6.7 miles of fencing were completed. The Plan projects seven miles of fencing per year, but should assess maintenance and replacement rather than miles.  
**Recommendation:** None.
- i) **Plan Goal:** Pond Construction  
**Accomplished:** No ponds were constructed. The Plan target is 10 ponds per year.  
**Recommendation:** None.
- j) **Plan Goal:** Corral Construction  
**Accomplished:** No corrals were constructed in FY 2001. The Plan target is two corrals per year. Portable corrals improve resource conditions versus permanent corrals.  
**Recommendation:** None.
- k) **Project:** Conversion of Fescue Pasture to Native Species  
**Accomplished:** 70 acres received weed treatment.  
**Recommendation:** None.

### 3. Soil, Water and Air

- a) **Item:** All Ground Disturbing Activities That Have the Potential to Adversely Affect Soil Productivity. (LRMP, Chapter 5)  
**Variance Allowed:** Minimum of 80% of an activity area will be left in a condition that does not decrease vegetative productivity following a soil-disturbing activity.  
**Findings:** Field reviews in a sample of seven units by the soil scientist and district personnel found that soil disturbance was within the standard.  
**Recommendation:** None.
- b) **Item:** All Ground Disturbing Activities That Have the Potential to Adversely Affect Water Quality and Riparian Areas. (LRMP, Chapter 5)  
**Variance Allowed:** Deviation from water quality standards for designated uses or Best Management Practices not achieving desired condition.  
**Findings:** In road maintenance and construction, stream crossing, and timber sale projects, BMPs achieved their desired results, with some exceptions. Erosion control measures were not always properly applied to protect soil and water. Some road construction and maintenance projects did not adequately protect water quality due to inadequate implementation of BMPs.

**Recommendation:** BMPs need to be emphasized in planning and implementing projects especially relative to drainage structure placement up-slope of stream crossings. Enforce erosion control clauses to reduce runoff during the construction phase of projects and during inactive periods of the contract. Project inspectors on roads and sale administrators on timber sales should use a checklist to assure protective measures are applied.

- c) **Item:** Water Quality Monitoring of at Least One Harvest Site Each Year. (LRMP, Chapter 5)  
**Variance Allowed:** Significant impacts to the channel or biological indicators that exceed water quality standards.  
**Findings:** Monitoring BMP implementation on seven projects showed most BMPs were implemented and effective. In a few cases, water bars were directed into stream channels. Three prescribed burn units were monitored. Drainage from firelines into a stream channel was a concern in one of the units.  
**Recommendation:** Burn plans should address fireline location and erosion control. Forest Hydrologist will help districts identify streams that need protection during project planning. Districts and engineering technicians should improve design, location, and inspection of erosion control structures.
- d) **Item:** Soil and Water Resource Improvements (LRMP, Chapter 5)  
**Variance Allowed:** A 30% project treatment area failure or deviation from water quality standards for designated uses.  
**Findings:** No major problems exist.  
**Recommendation:** None.
- e) **Item:** Herbicide Application Where There is a Risk of Off-Site Movement. (LRMP, Chapter 5)  
**Variance Allowed:** Information showing persistent off-site movement.  
**Findings:** Water samples were collected below four silviculture projects in which herbicide had been applied. Samples were collected at the same sites during three storms to assure there was no off-site movement. In 2001, there were no levels of Triclopyr or Glyphosate in any sample.  
**Recommendation:** Monitor pasture or invasive weed herbicide projects for water quality.
- f) **Item:** Water Quality at Developed Swimming Areas (LRMP, Chapter 5)  
**Variance allowed:** When monitoring indicates that water quality does not meet established State and Federal Standards for *E. coli* and fecal coliform bacteria.  
**Findings:** The occurrence of beach closures was low this season with the only ones at Barkshed on North Sylamore Creek and Lake Wedington.  
**Recommendation:** The Forest should continue to coordinate with the Department of Health to comply with the standards and efficiently protect users.

- g) **Item:** Water Quality, Quantity and Timing in Selected Representative Drainage Basins (Baseline Monitoring). (LRMP, Chapter 5)  
**Variance Allowed:** Any downward trend or lack of upward trend to achieve goals and objectives.  
**Findings:** No downward trends have been detected.  
**Recommendation:** Coordinate with the state water quality agency and the University of Arkansas to use their water chemistry data, map source watersheds on GIS and begin broad scale analysis of existing conditions. Complete a 5<sup>th</sup> level watershed analysis in 2002 for water quality and flow issues.
- h) **Item:** Air Quality (LRMP, Chapter 5)  
**Variance Allowed:** Air quality standards not being met, and air quality values being impaired.  
**Findings:** Fire Management Officer reviewed prescribed fire and smoke management plans to assure that activities met standards. The Forest continued ozone monitoring at Deer. All measurements were within National Ambient Air Quality Standards. The Interagency Monitoring of Protected Visual Environments (IMPROVE) site at Deer continues to gather visibility data.  
**Recommendation:** Continue to work with the State of Arkansas on voluntary smoke management guidelines utilizing staff air specialist (Ouachita NF).
- i) **Management Requirement:** Maintain and enhance soil, water, air and related values through the use of Best Management Practices and other techniques including erosion control plans, vegetation filter strips, and management of the transportation system.  
**Findings:** Floodplain and riparian values are considered in most construction and maintenance plans; however, many existing Forest system roads, adjacent to streams or in floodplains, impact water quality during annual floods. Drainage ditches that lead into streams are relocated if they are identified as a problem and funds are available. Erosion control plans are developed for all projects; however, they are sometimes not effective or are not properly installed. Road inventories across the forest are identifying roads no longer needed for management. They will be closed as funding allows.  
**Recommendation:** Districts should inventory stream crossings and floodplain roads and prioritize these projects with available watershed funds. Use available technology and large rock to construct roads across streams. Project inspectors need to provide feedback and make recommendations to their supervisors when erosion control measures are not effective, so that corrective actions can be taken. Erosion control measures need to be incorporated during construction.

#### 4. Protection

- a) **Item:** Fire Management Planning and Analysis (LRMP, Chapter 5)  
**Variance Allowed:** Significant deviations from Fire Management Action Plan.  
**Findings:** The Fire Management Action Plan is currently being revised. The prescribed burning program continues to grow on the Forest and National level. Prescribed burn accomplishments are currently listed in several program areas: wildlife, range, timber stand improvement, and fuel treatment.  
**Recommendation:** Fire Management has updated the National Fire Management Analysis System (NFMAS) for the Ozark-St. Francis National Forests. The 30,000-acre cap on prescribed burning is currently being reviewed by the USFWS. The National Fire Plan initiative is being implemented on the Forest with an emphasis on suppression and fuels management in the wildland-urban interface. A fuels assessment analysis is underway to address changing fuel profiles as a result of oak mortality.
- b) **Item:** Fire Suppression (LRMP, Chapter 5)  
**Variance Allowed:** Significant deviations from Fire Management Action Plan objectives.  
**Findings:** There were 40 fires in FY 2001 burning 187 acres. This is well below acres burned in FY 2000.  
**Recommendation:** Continue in efforts to implement elements of the National Fire Plan. Respond to oak mortality based on fuels assessment findings.
- c) **Item:** Insect or Disease Symptoms and Damage (LRMP, Chapter 5)  
**Variance Allowed:** Determination that a pest population is likely to exceed endemic stages.  
**Findings:** State and Private Forestry and the Arkansas State Plant Board continue to monitor Gypsy Moth populations. Oak decline and oak borer are becoming widespread across the Forest. Scientists from the Forest Health Protection Unit of the Forest Service established permanent monitoring plots in 1999 and re-inventoried them and prepared a report in FY 2000. The Forest inventoried damaged areas on one district in FY 2000 and completed aerial surveys over the most heavily impacted areas on the Forest in FY 2001. The forest created a position for an Oak Sustainability Coordinator.  
**Recommendation:** The Forest should continue to implement this strategy for oak sustainability using the most current scientific and silvicultural techniques.

## B. Sustainable Multiple Forest and Range Benefits

Sustainable Forest and Range Benefits are centered on the multiple forest products (commercial and noncommercial), services (such as recreation settings), and outputs (such as potable water) which provide a variety of benefits. This section addresses relationships of a growing society's needs for forest products and sustaining biological and social values within the capability of southern ecosystems.

### 1. Recreation, Heritage, and Wilderness

- a) **Item:** Developed and VIS Site Use (LRMP, Chapter 5)  
**Variance Allowed:** Annual use at a specific site less than 5% or more than 45% of theoretical capacity. A total use variance of 15% at 5-year intervals.  
**Findings:** The new information reporting systems are being incorporated into one system called Infrastructure 1.5.  
**Recommendation:** None.
- b) **Item:** Dispersed Area Use (LRMP, Chapter 5)  
**Variance Allowed:** When use by ROS class varies more than 15% at end of first 5-year Plan interval, and when trails, streams and special areas show excessive use or resource damage.  
**Findings:** Further development of the Limits of Acceptable Change has ceased.  
**Recommendation:** This process is the responsibility of the Wilderness Coordinator, a position that does not exist on the Forest.
- c) **Item:** Developed Site and Facility Condition (LRMP, Chapter 5)  
**Variance Allowed:** Deterioration or vandalism at greater than normal rate.  
**Findings:** Deterioration and vandalism occurred at about normal rates.  
**Recommendation:** None.
- d) **Item:** Dispersed Recreation Opportunity Classes (LRMP, Chapter 5)  
**Variance Allowed:** 15% ROS acreage change.  
**Findings:** Review of ROS forest-wide in FY 2000 indicates changes did not approach 15% in ROS Classes forest-wide.  
**Recommendation:** None.
- e) **Item:** Off-Highway Vehicle Impacts (LRMP, Chapter 5)  
**Variance Allowed:** Documented user conflicts, photographic record of resource damage, and/or observation of public safety hazards.  
**Findings:** The Forest identified several areas of resource damage and developed rehabilitation plans. Mill Creek ATV area is currently open and planning work has begun on the Lee Creek System.

- Recommendation:** Forest needs to work with user groups to identify potential areas for development of future trails. The Road Analysis Process (RAP) will inventory existing use areas, determine effects, work with user groups, and designate that trails with no impact are occurring or can be mitigated.
- f) **Item:** Visual Quality (LRMP, Chapter 5)  
**Variance Allowed:** Projects that fail to meet adopted Visual Quality Objectives (VQO's).  
**Findings:** Forest continued to comply with VQO's. The new Scenery Management guidelines need to be evaluated during Plan revision.  
**Recommendation:** Include new Scenery Management System guidelines in the Forest Plan revision.
- g) **Item:** Potential Wild and Scenic River Protection (LRMP, Chapter 5)  
**Variance Allowed:** Activity affecting free-flowing character or values.  
**Findings:** Comprehensive River Management Plans and Forest Plan Amendment #7 established Wild and Scenic River Management Areas and river corridors. Amendment #8 to the Forest Plan includes the goal, values, management direction, and standards for the six designated wild and scenic rivers.  
**Recommendation:** None.
- h) **Item:** Heritage Resource Compliance and Protection (LRMP, Chapter 5)  
**Variance Allowed:** Non-compliance with 36 CFR 800 and Forest Management Requirements.  
**Findings:** New National Historic Preservation Act regulations were made final in 2000. These regulations require negotiation of new Programmatic Agreements with the State Historic Preservation Office (SHPO) and the Tribal Historic Preservation Office (THPO).  
**Recommendation:** None.
- i) **Item:** Wilderness (LRMP, Chapter 5)  
**Variance Allowed:** Soil movement or exposure and/or vegetation loss reaches Limits of Acceptable Change (LAC).  
**Findings:** LAC has been completed for wilderness areas included in Wild Scenic River corridors. Further development of LAC has ceased pending Plan Revision.  
**Recommendation:** Filling a Wilderness Coordinator position would enable this process to continue.
- j) **Management Requirement:** Use Executive Orders, regulations, FSM, and Forest Off Highway Vehicle (OHV) Direction Statement to manage OHV use.  
**Findings:** The Forest needs to continue to work with user groups to identify and establish OHV use areas. There is a road closure order for all closed roads.  
**Recommendation:** Forest needs to work with user groups to identify potential areas for development of trails. The OHV team needs to follow up on inventory and designations of trail system.

- k) **Management Requirement:** Manage trail system to provide a variety of opportunities.  
**Findings:** The Forest should meet annually with the Ozark Highlands Trail Association (OHTA) to coordinate maintenance and construction needs. OHTA members routinely maintain almost all sections of the Ozark Highlands Trail. Work continued on Brock Creek Multi-Use Trail and Sylamore Mountain Bike Trail. Little progress made on Lee Creek OHV Trail.  
**Recommendation:** None.
- l) **Management Requirement:** Inventory and classify caves as they are discovered and maintain file in each district office.  
**Findings:** Monitoring of cave ecosystems and undeveloped cave habitat is done as funding allows.  
**Recommendation:** None.
- m) **Management Requirement:** Manage Wild and Scenic Rivers on the Nationwide Rivers Inventory to maintain or enhance suitability.  
**Findings:** The Forest administered Wild and Scenic Rivers according to Plan direction.  
**Recommendation:** None.
- n) **Management Requirement:** Preserve wilderness character; manage for present and future wilderness use and enjoyment (Management Area 1). **Findings:** The Forest administered wilderness areas according to Plan direction.  
**Recommendation:** None.
- o) **Management Requirement:** Maintain present developed site range and quality for public enjoyment in Management Area 3.  
**Findings:** Maintenance of developed sites continues at reduced service levels. The Forest completed the analysis process to determine feasibility of partnership with State Parks to manage and improve recreation facilities on the St. Francis and has begun the special use permit. Work was completed at Long Pool Campground rehab.  
**Recommendation:** The Public Services Staff Officer and St. Francis District Ranger should complete special use permit for the St. Francis. Contracts need to be awarded for the Rotary Ann rehab project.
- p) **Management Requirement:** Provide and maintain safe attractive facilities at administrative sites (Management Area 6).  
**Findings:** Districts continue to maintain safe, attractive facilities at administrative sites by promptly repairing broken or unsafe items and maintaining the landscaping. The group campground at Blanchard Springs is completed. The walkway at the picnic area at Alum Cove Day-Use Site is being restored.  
**Recommendation:** None.

- q) **Management Requirement:** Protect and enhance Special Interest Area values (Management Area 7).  
**Findings:** The Districts monitored use and resource damage at Special Interest Areas throughout the Forest. Based on the results of monitoring, the Buffalo District will complete surveys for NEPA analysis and scope future management direction for Sam's Throne.  
The Forest needs to finalize boundaries of proposed additions to Special Interest Areas, as described in Amendment 5.  
**Recommendation:** Continue inventory and evaluation of Special Interest Areas. Amend Forest Plan as decisions are made.
- r) **Plan Goal:** Trail Construction  
**Findings:** In FY 2001, the Forest constructed/reconstructed four miles of trail.  
**Recommendation:** Complete Brock Creek and Lee Creek trails.
- s) **Plan Goal:** FY 2001 Challenge Cost-Share Partnerships  
**Findings:** In FY 2001, partnerships continue with Friends of Lake Wedington and Friends of the St. Francis.  
**Recommendation:** None.
- t) **Plan Goal:** Scenic Byways  
**Findings:** The FY 93 recommendation that all management planning for the Scenic Byways be completed in FY 94 has still not been accomplished.  
**Recommendation:** The contract to construct a new restroom, improve picnic facilities, parking and overlooks along Scenic 7 Byway scheduled to be let in 1997 needs to be completed (Rotary Ann).
- u) **Plan Goal:** Protection of Heritage Resources  
**Findings:** Planned protection for specific sites. Continuous monitoring of vandalism. Developing plan for protection of cave and rock shelter sites.  
**Recommendation:** None.
- v) **Plan Goal:** Ozark Interpretive Association (OIA)  
**Findings:** OIA's 2001 sales are unknown at this time due to changes in staffing.  
**Recommendation:** None.
- w) **Plan Goal:** Developed Site Administration  
**Findings:** In FY 2001, the Forest continued the Recreation Fee Demonstration Project (RFDP) as a forest-wide program. Fourteen developed sites were included in the project. The resulting fees collected \$706,301 under the RFDP rules, returned \$671,701 to the Forest. Funds (\$734,337) were to be spent refurbishing and improving the fee areas.  
**Recommendation:** Continue RFDP on the Forest, especially since 95% of collections now return to the Forest. Seek additional areas to bring into the program by improving the facilities.

- x) **Plan Goal:** Heritage Resource Inventory of 6,500 acres completed as project needs.  
**Findings:** Archaeologists completed inventory on 6,500 acres, 14 projects with ten sites and six sites eligible for Historical Register. Three sites were stabilized. Program goal should be to comply with NEPA and Section 106 with a balance between inventory, evaluation, protection, management and interpretation rather than 12,000-acre inventory activity level annually.  
**Recommendation:** None.

## 2. Timber

- a) **Project:** Total Volume Offered (Volume Sold) (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** FY 92 M & E Report recommended selling no more than an average of 9.6 million cubic feet (MMCF) annually for the remainder of the plan period. Volume sold in FY 2001 complies with this recommendation.

The Forest Plan established an Allowable Sale Quantity (ASQ) for the 15 year Plan period of 168 MMCF. The total volume sold through the first 15 years (FY 87 - FY 2001) is 117.0 MMCF or 70% of the planned amount for this period. The downfall is due to reduced volumes sold in FY 90 – FY 95 and FY 99-FY 2001 as a result of administrative appeals, lawsuits and reduced funding for subsequent years.

The Forest sold 9.6 MMCF in FY 90, 4.9 MMCF in FY 91, 8.7 MMCF in FY 92, 8.9 MMCF in FY 93, 7.6 MMCF in FY 94, and 8.6 MMCF in FY 95 compared to a projected annual average of 12.0 MMCF as established by the ASQ. Total volume offered is not within the allowable 15% variance after 15 years. Target allocation for FY 2002 is expected to be 9.6 MMCF.

**Recommendation:** None.

- b) **Item:** Silvicultural Exams and Prescriptions (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** After 15 years implementing Plan direction, the Forest has accomplished 56% of the planned acreage. Shortfall is due to inadequate funding and personnel allocations. Districts will continue to examine and prescribe the maximum acreage possible within approved funding levels. Forest staff will continue requesting adequate funding in out-year program budgets.  
**Recommendation:** None.

- c) **Item:** Reforestation (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** After 15 years of operation under the Plan, 62,565 acres have been reforested compared to a projected 72,300 acres. This is 87% of planned. The 2,942 acres reforested in FY 2001 was below the plan projection of 4,820 acres. Shortfall was due to inadequate funding and personnel allocations.  
**Recommendation:** Districts will continue to reforest the maximum acreage possible within approved funding levels.
- d) **Item:** Regeneration (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** During the 15 years of the Plan, the Forest sold 35,801 even aged regeneration acres compared to a projected 62,250 acres, 58% of the acreage planned. Use of uneven-aged harvest methods has been considerably lower than planned. Hardwood group selection cutting was at 25% of planned and pine selection cutting was at 37% of planned after 15 years. The Forest planned no pine selection for the first four years because it was not listed as an appropriate cutting method in the original Plan but was approved under the Amended Plan in FY 91.  
**Recommendation:** None.
- e) **Item:** Timber Stand Improvement (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** TSI accomplishment is well below Plan projections.  
**Recommendation:** None.
- f) **Item:** Maximum Size Limits (LRMP, Chapter 5)  
**Variance Allowed:** None. Maximum size limits should not conflict with achieving Forest Plan objectives and desired future condition.  
**Findings:** No areas have exceeded limits stated in the Forest Plan, which are 50 acres for pine and 30 acres for hardwood regeneration areas.  
**Recommendation:** None.

### 3. Minerals and Geology

- a) **Item:** Oil and Gas Leases (LRMP, Chapter 5)  
**Variance Allowed:** Effects that do not meet Forest Management Requirements for soil and water; departure from authorizing document terms and conditions.  
**Findings:** The accomplishments were below the Plan level. Area Consents have been updated.  
**Recommendation:** None.

### 4. Lands

- a) **Item:** Special Use Permits (LRMP, Chapter 5)  
**Variance Allowed:** Violation of permit requirements.  
**Finding:** Special Use inspections indicated few deviations from permit requirements. Administrative actions corrected any violations.  
**Recommendation:** None.

- b) **Item:** Land Exchange (LRMP, Chapter 5)  
**Variance Allowed:** Compliance with Land Adjustment Plan.  
**Finding:** The 1993 M & E Report recommended a Plan Amendment to adjust projected land exchange acreage to more realistically reflect existing opportunities. The Forest has delayed this action until Plan revision. The Forest is below projected Plan level due to lack of funds to complete land adjustments necessary to meet the projected plan level.  
**Recommendation:** None.
  
- c) **Item:** Property Boundary Locations (LRMP, Chapter 5)  
**Variance Allowed:** 15% variance from annual goal (average of 100 miles per year over Plan period).  
**Finding:** Funds have been inadequate to meet the planned target in property line locations.  
**Recommendation:** During Plan revision, adjust the projected property boundary location activity to a level based on anticipated needs.
  
- d) **Item:** Property Boundary Maintenance (LRMP, Chapter 5)  
**Variance Allowed:** 10% variance from annual goal.  
**Finding:** Funds have been inadequate to meet the planned target in property line locations.  
**Recommendation:** Continue to re-adjust out-year budget to reflect the financing of maintenance on a 10-year interval.
  
- e) **Item:** Rights-of-Way (LRMP, Chapter 5)  
**Variance Allowed:** +20% of cases require condemnation.  
**Finding:** The Forest has condemned no Rights-of-Way in the past 14 years and is acquiring needed R-O-W for National Forest management on as needed basis from willing landowners.  
**Recommendation:** None.

## 5. Facilities

- a) **Project:** Road Reconstruction and Construction - Comparison of projected average annual construction/reconstruction vs. actual accomplishments in miles. (LRMP, Chapter 5)  
**Variance Allowed:** 15% at 5-year intervals.  
**Findings:** The amount of road construction and reconstruction was less than projected in the Plan primarily due to timber sale need changes.  
**Recommendation:** During Plan revision, Engineering will revise the road reconstruction/construction estimate to reflect anticipated resource management activities.

## C. Organizational Effectiveness

This section addresses agency and cooperator related inputs and constraints: changes in laws, regulations, policy, and the agency's ability to respond to emerging issues and changing conditions to implement the Forest Plan.

Monitoring and evaluation allows the Forest Supervisor to improve compliance with management requirements and to identify and schedule Forest Plan amendments or revisions, where needed, to improve resource management. The Forest began the Forest Plan revision process in 1993. In coordinating this process with the Ouachita and Mark Twain National Forests in 1994, it became apparent that most of the first Phase of revision (the analysis of the management situation--AMS) could be accomplished more efficiently if the three Forests combined resources.

In the fall of 1995, as budgets and the workforce continued to decline, the revision was postponed. In early 1996, the Ozark-St. Francis, Ouachita, and the Mark Twain National Forests started the Ozark/Ouachita Highland Assessment. Final documents from this Assessment were distributed in 2000. In 1997, Congress prohibited forests from spending funds for Plan Revisions, postponing revisions until final Planning regulations are issued. Exceptions are for Forests where Plans were already underway, and a Notice of Intent (NOI) had been issued. The Ozark-St. Francis National Forests will begin Plan Revision in FY 2002.

Monitoring and evaluation of various items indicate some are not meeting the outputs predicted in the existing Plan. The original intent was to update or change these items during Forest Plan Revision. The Forests will continue to identify critical changes and modify the existing plan through amendments, where necessary.

The Forest has planned to develop a Vision 2005 organizational structure, but this has not been accomplished.

**TABLE I**

**ACTUAL FOREST EXPENDITURES COMPARED TO FOREST PLAN BUDGET**

<u>ACTIVITY</u>	<u>FOREST PLAN BUDGET<sup>1</sup></u>	<u>ACTUAL 2001 EXPENDITURES</u>
Timber	\$4,437,000	\$4,452,000
Wildlife / Fish / PETS	777,000	971,000
Recreation/ Wilderness / Heritage <sup>2</sup>	1,912,000	2,231,000
Law Enforcement	0	96,000
Fire	1,435,000	2,167,000
Lands	404,000	475,000
Minerals	274,000	306,000
Engineering	3,619,000	3,502,000
Soil / Water / Air	373,000	267,000
General Administration	1,854,000	472,000
Range	82,000	180,000
Ecosystem Inventory, Monitoring, Planning <sup>3</sup>	1,264,000	1,363,000
<b>TOTAL</b>	<b>\$16,431,000</b>	<b>\$16,482,000</b>

<sup>1</sup>The figures in this column represent about a 3 percent annual increase above 1998 "Level 3" budget, which was based on "Level 3" funding in 1996.

<sup>2</sup>Recreation/Wilderness/Heritage includes recreation and trail construction funds.

<sup>3</sup>The category for Ecosystem Inventory, Monitoring, and Planning for forest-wide inventory and monitoring was created in 1996. It includes expenditures of Soil, Water, Air, Wildlife, Range and Recreation, as well as Administration and Land Management Planning.

**TABLE II**  
**FOREST PLAN OBJECTIVES BACKLOGGED**

<u>ACTIVITY</u>	<u>UNITS</u>	<u>BACKLOG</u>
<b><u>Recreation</u></b>		
*Water System	each	1
*Flush Toilets	each	1
Campground	area	4
Swim Site Expansion	area	2
<b><u>Range</u></b>		
Pond Construction	structures	120
Burning	acres	28,200
Brush Hogging	acres	23,700
Fertilization	acres	9,300
Seeding	acres	14,550
Fencing	miles	90
Corral Construction	structures	27
<b><u>Timber</u></b>		
Examination & Prescription	acres	729,531
<b><u>Soil, Water, &amp; Air</u></b>		
Watershed Maintenance	acres	616
<b><u>Lands</u></b>		
Property Line Location	miles	889
Landline Maintenance	miles	795
<b><u>Fuel Treatment</u></b>		
**Prescribed Burning	acres	8,263
<b><u>Wildlife</u></b>		
Wildlife Stand Improvement	acres	0
Wildlife Opening Maintenance	acres	38
Pond Fertilization	acres	0
Pond Construction	structures	24

\* Projects funded in FY 93; planning and design in progress.

\*\*Prescribed Burn program is progressing toward Forest Plan Objectives. See Table III.

**TABLE III**

Comparison of actual accomplishments by each fiscal year to the total activities proposed in the Forest Plan. This table displays the Forest's progress in reaching total to date. Since 2001 is the fifteenth year of the Plan and the Plan objectives were based on a 10-year period, projections were extended proportionally.

ACTIVITIES	UNITS	LRMP Ob <sup>1</sup>	FY87- FY96	FY 97	FY 98	FY 99	FY2000	FY2001	% PLAN
<u>RECREATION</u>									
Use Administration	PAOT-D	na	12.6 MM	1.3 MM	1.3MM	1.4MM	1.4MM	1.4MM	na
Trail									
-Construction/Reconstruct.	Miles	122	141.5	10	2	4	4	4	136%
-Maintenance	miles	na	142.5	75	128	144	144	144	na
<u>Cultural Resource</u>									
-Inventory	acres	167,000	181,145	20,384	25,464	19,722	19,722	19,722	171%
-Evaluation	sites	na	112	26	42	36	36	36	na
Wilderness Administration	PAOT-D	1,860,800	1,339,000	133,600	133,600	133,600	133,600	133,600	108%
<u>WILDLIFE &amp; FISHERIES</u>									
Prescribed Burning	acres	11,100	18,713	1,738	3,583	5,860	7,579	225	340%
Wildlife Opening Maint.	acres	2,900	1,749	78	320	384	240	665	118%
Food Plot Maint.	acres	330	1,948	308	60	538	520	1,012	1,329%
Wildlife Opening Dev.	acres	360	959	34	38	59	0	12	306%
Food Plot Dev.	acres	84	1,127	61	21	7	22	0	1,474%
Wildlife Stand Improvement	acres	1,500	330	225	447	812	553	228	173%
Seeding and Planting	acres	280	2,117	1,661	170	461	122	265	1,713%
Pond Construction	struct	450	377	30	18	25	6	47	112%
Fish Cover Dev.	struct	140	322	7	12	15	25	0	272%
Pond Fertilization	acres	1,670	858	30	200	375	911	0	142%
<u>RANGE</u>									
Prescribed Burning	acres	28,000	1,250	66	30	295	0	0	6%
Brush Hogging	acres	28,000	2,698	800	160	500	2,000	690	24%
Fertilization	acres	14,000	2,898	800	0	500	1,500	490	44%
Seeding	acres	14,000	167	20	40	85	65	105	3%
Fencing	miles	100	7	0	2	5	1.2	6.7	22%
Pond Construction	struct	140	18	0	7	3	2	0	21%
Corral Construction	struct	30	1	0	0	1	1	0	10%
<u>SOIL AND WATER</u>									
Watershed Improvements	acres	348	419	20	27	48	30	42	168%
Watershed Maintenance	acres	1,689	767	25	10	10	10	10	49%
Soil & Water Inventory	acres	na	134,174	10,000	8,080	8,000	4,000	8,000	na

% Plan = % of Forest Plan Accomplished to Date

na = not assigned

LRMP Obj = Objectives set by Forest Plan

PAOT-D = (People at One Time capacity) X (number of Days recreation site is open).

<sup>1</sup> 15 year LRMP objective.

**TABLE III continued**

ACTIVITIES	UNITS	LRMP Obj <sup>1</sup>	FY87-'96	FY 97	FY 98	FY 99	FY 2000	FY 2001	% PLAN
<u>TIMBER<sup>2</sup></u>									
Timber Vol. Offered	MCF	183,000	85,562	9,971	8,177	7,070	6,952	8,170	69%
Timber Vol. Sold	MCF	183,000	81,531	8,173	10,308	6,621	4,803	5,403	64%
Reforestation									
-Hardwood	acres	33,000	17,567	1,028	1,086	1,712	132	485	67%
-Pine	acres	46,650	26,282	2,727	2,946	2,764	3,379	2,243	86%
TSI									
-Hardwood	acres	24,000	12,896	869	1,146	1,425	1,171	1,468	79%
-Pine	acres	93,800	24,030	1,943	1,258	1,073	1,951	1,807	34%
EAM Cutting (Ac. Sold)									
-Pine Clearcutting	acres	22,850	8,767	47	0	0	0	0	38%
-Hardwood Clearcutting	acres	16,000	8,838	5	0	0	0	0	55%
-Pine Seedtree	acres	11,700	6,755	1,933	1,236	817	454	642	101%
-Pine Shelterwood	acres	6,600	862	301	331	295	247	35	31%
-Hardwood Shelterwood	acres	6,500	2909	41	544	367	269	197	67%
UAM Cutting (Ac. Sold)									
-Hardwood Group Selection	acres	49,000	12,354	516	12,354	889	152	626	55%
-Pine Selection	acres	33,000	6,841	625	1,743	760	385	656	33%
Pine/Hardwood Thinning	acres	95,600	50,241	7,011	6,026	4,784	5,974	4,647	83%
Exam. & Prescription	acres	1,665,000	767,843	56,677	32,705	13,283	32,719	32,242	56%
<u>FUEL TREATMENT</u>									
Prescribed Burning	acres	70,000	30,143	8,205	11,123	20,266	22,583	27,786	%
<u>ROAD WORK</u>									
Reconstruction/Construction	miles	1,100	535	62	38	37	11	33	65%
<u>LANDS &amp; MINERALS</u>									
Mineral Leases <sup>3</sup>	Leases	3,600	6,814	60	31	42	32	10	194%
Land Acquisition <sup>4</sup>	acres	6,000	18,710	557	769	1,361	529	60	366%
Land Exchange	acres	11,100	3,016	334	143	1,074	329	0	44%
Boundary Location	miles	1,400	503	13	9	6	4	5	39%
Landline Maintenance	miles	2,800	1,853	41	42	70	0	70	74%
Right of Way Acquisition	#s	na	210	10	11	3	8	5	na

% Plan = % of Forest Plan Accomplished to Date

na = not assigned

LRMP Obj = Objectives set by Forest Plan

EAM Cutting (Ac. Sold) = Even-Aged Management (Acres Sold)

UAM Cutting (Ac. Sold) = Uneven Age Management (Acres Sold)

MBF = Thousand Board Feet

MCF = Thousand Cubic Feet

TSI = Timber Stand Improvements

<sup>1</sup> 15 year LRMP objective. LRMP OBJ Column for Timber represents a weighted average of 5 years under the original Forest Plan and 10 years under the amended Forest Plan.

<sup>2</sup> Hardwood and Pine Selection acres are gross stand acres.

<sup>3</sup> Energy and non-energy processed.

<sup>4</sup> Includes 20 acres donated and 75 acres drug forfeiture lands transferred to USA in 1998, and 40 acres donated in 1999.

### **III. 2001 Monitoring and Evaluation Action Plan**

This section flows out of the findings and recommendations made in the previous section. It lists the actions to be taken, including forest plan amendments or revision.

#### **A. Actions Not Requiring Forest Plan Amendment or Revision**

No new actions were identified in FY 2001. There are other actions that have been identified in previous Monitoring and Evaluation Reports that are on-going or have not been completed. (See Appendix C)

#### **B. Actions Requiring Amendment or Revision to the Forest Plan**

No new actions were identified in FY 2001.

## C. Amendments to be Completed

1. **Amendment Description:** PETS Amendment - This potential amendment proposes a change in the way biological evaluations are completed. It proposes changes to the language that was added through Amendment #4.  
**Responsibility:** Forest Planners  
**Proposed Date of Completion:** FY 2002/2003  
**Status:** Region has prepared a programmatic amendment to VMEIS, which is in draft format (FY 2002). This may result in an amendment to the Forest Plan.
2. **Amendment Description:** MIS Amendment – This amendment proposes additional clarification regarding selection and monitoring of Management Indicator Species.  
**Responsibility:** Ecosystems Staff Officer and Watershed and Planning Staff Officer  
**Proposed Date of Completion:** N/A  
**Status:** A review and analysis were completed in FY 2001. No changes in MIS species were recommended at this time. Further analysis will be done during Plan revision.
3. **Amendment Description:** SIA Amendment – Amendment 5 to the Forest Plan committed the Forest to evaluate additional Special Interest Areas. (See recommendation 1q, page 14)  
**Responsibility:** District Rangers and Watershed and Planning Staff Officer  
**Proposed Date of Completion:** FY 2002  
**Status:** SIAs included in inventoried roadless areas will be analyzed during Plan revision. Decision will be made in FY 2002 about how to resolve proposed SIAs outside roadless areas.

# APPENDIX A

## FOREST INTERDISCIPLINARY TEAM

Names and positions of the Forest Monitoring and Evaluation Interdisciplinary Team who contributed to this report are listed below.

Steve Best	Forest Wildlife Biologist
Richard Bowie	Forest Landscape Architect
Jack Davis	Planner
Duane Dipert	Watershed and Planning Staff Officer
Cary Frost	Planner
Roger Fryar	Assistant Fire Team Leader
Rick Golden	Forest Fisheries Biologist
Greg Hatfield	Ecosystems Staff Officer
Deryl Jevons	Planner
Kathy King	Writer/Editor
Ron Klouzek	Technical Services Staff Officer
Gary Knudsen	Public Services Staff Officer
Connie Neff	Forest Hydrologist
Len Weeks	Forest Soil Scientist

# APPENDIX B

## LIST AND DESCRIPTION OF PLAN AMENDMENTS

1. Added language to the Forest Plan on southern pine beetle. (1987)
2. Clarifies the process and schedule for suitability studies for rivers eligible for consideration for inclusion in the National Rivers System. (1987)
3. Designated a corridor along the Ozark Highlands trail and changed the Visual Quality Objective. (1989)
4. Incorporated the methods and tools available for use in the Final EIS on vegetation management in the Ozark/Ouachita Mountains. (1990)
5. Resolves appeals to the Forest Plan, committing the Forest to different water monitoring, examination of Special Interest Areas, inventory of forest roads, modification of timber management techniques, etc. (1991)
6. Designated Dismal Hollow as a Research Natural Area. (1990)
7. Established corridors for six wild and scenic rivers. (1993)
8. Added the standards and guidelines, management direction, and goals and objectives from the wild and scenic river plans. (1996)
9. Classifies acquired lands from 1986 to 1998 into management areas. (1999)
10. Allows access to the new campgrounds in Sam's Throne SIA. (2001)
11. Allocates 300 acres of management area 8 to management area 3 on the St. Francis National Forest. (2001)

# APPENDIX C

## STATUS OF RECOMMENDATIONS AND ACTION PLAN FROM PREVIOUS MONITORING AND EVALUATING REPORTS

Many of the recommendations from previous Monitoring and Evaluation Reports (Part III A) are on-going activities.

Other recommendations (Part III B) will require Plan Amendment or Revision. Delay of Forest Plan Revision may result in an increasing number of recommendations to be included in Plan Amendments. Many recommendations are not critical, but are listed so they can be included in the revised Forest Plan.

Following are the status of Actions from previous Monitoring and Evaluation Reports:

### 1. Recreation, Heritage, and Wilderness

- a) **Action:** Determine if Buffalo District Limits of Acceptable Change (LAC) standards apply to the situation on Bayou and Sylamore Districts. Buffalo Ranger District needs to apply to their situation. (See recommendation 1b, page 12 and 1i, page 13)  
**Responsibility:** Bayou, Sylamore, Buffalo District Rangers  
**Completion Date:** No completion is anticipated pending either Plan Revision or filling of Wilderness Coordinator position.  
**Status, FY 2000 M & E Report:** Nothing has been done.
- b) **Action:** Assist the St. Francis National Forest in completing analysis for partnership with State Parks at Bear Creek Lake Recreation Area and other recreation facilities on that forest. (See recommendation 1o, page 14)  
**Responsibility:** Public Services Staff Officer, St. Francis Deputy Ranger  
**Completion Date:** FY 2001  
**Status, FY 2000 M & E Report:** Partnership is well developed; EA for development of Mississippi River State Park is completed; Rotary Ann and Cove Lake are still not ready for contracting; Long Pool Campground was completed in 2001.
- c) **Action:** Continue to work with the State Historic Preservation Office, the Tribal Historic Preservation Offices, and the Advisory Council on approval of Programmatic Agreements and continue to complete a site evaluation and site protection program to complement the inventory program. (See recommendation 1h, page 13)  
**Responsibility:** Forest Archaeologist  
**Status, FY 2001 M & E Report:** On-going
- d) **Action:** Continue the Recreation Fee Demonstration Project and bring additional sites into the program by improving the facilities. (See recommendation 1w, page 15)  
**Responsibility:** Public Services Staff Officer  
**Status, FY 2001 M & E Report:** On-going

- e) **Action:** Complete Rotary Ann facilities. (See recommendation 1t, page 15)  
**Responsibility:** Technical Services Staff Officer; Watershed and Planning Staff Officer, District Rangers  
**Completion Date:** FY 2000 and on-going  
**Status, FY 2001 M & E Report:** Planned completion in 2002.
- f) **Action:** Forest Supervisor will form ID Team to develop plan for Off-Highway Vehicle (OHV) use on the forest to identify potential areas for development of OHV trails and implement Forest policy for OHV use. (See recommendation 1j, page 13)  
**Responsibility:** Forest Supervisor  
**Completion Date:** A team was formed in 1999 - recommendations due FY 2001.  
**Status, FY 2000 M & E Report:** Recommendations were developed in FY 2000. No potential areas have been identified for development

## 2. Timber

- a) **Action:** Continue to provide Districts with information to guide decisions on type of harvest and volume sold, to conform with goals of the Land Management Plan. (See recommendation 2d, page 17)  
**Responsibility:** Ecosystems Staff Officer & Forest Supervisor  
**Status, FY 2001 M & E Report:** Ongoing each fiscal year.

## 3. Wildlife, Fish and Range

- a) **Action:** Develop fisheries management plan for forest and for ponds and lakes larger than one acre and six feet deep. (See recommendation 1s, page 5)  
**Responsibility:** Fisheries Biologist  
**Completion Date:** FY 2002  
**Status, FY 2000 M & E Report:** This has been started and includes streams. The Fish Biologist position was vacant in 2001 (filled in 2002).
- b) **Action:** During Plan Revision consider revision of plant and animal Management Indicator Species (MIS) to incorporate species that are better ecological indicators. (See recommendations 1m, n, and o, pages 4)  
**Responsibility:** Ecosystems Staff Officer  
**Completion Date:** Plan revision  
**Status, FY 2000 M & E Report:** Biologists started working on a strategy in FY 2000.
- c) **Action:** Develop a new implementation schedule for wildlife and range improvements. (See recommendations on pages 6 - 8)  
**Responsibility:** Ecosystems Staff Officer  
**Completion Date:** Plan revision  
**Status, FY 2000 M & E Report:** The Forest Plan lists projections on goals for various items. During Plan revision, ecological goals should take precedence over numerical targets.

#### 4. Soil, Water, and Air

- a) **Action:** Coordinate procedures to monitor Best Management Practices (BMPs) and provide feedback to improve BMP implementation. Timber sales on each district will be monitored for BMP implementation. (See recommendations 3b, page 8; 3c, page 9; and 3i, page 10)  
**Responsibility:** Forest Soil Scientist & Forest Hydrologist  
**Status, FY 2001 M & E Report:** On-going
- b) **Action:** Inventory and correct problems at stream crossings. Project inspectors need to provide feedback when erosion control measures are not being effective. Better, more timely, erosion control measures need to be applied, especially if construction leaves bare soil over the winter months. (See recommendation 3i, page 10)  
**Responsibility:** District Rangers, engineering technicians  
**Status, FY 2001 M & E Report:** On-going

#### 5. Planning

- a) **Action:** Complete surveys to determine future management direction for proposed additions to Special Interest Areas. (See recommendation 1q, page 15)  
**Responsibility:** District Rangers and Forest Planners  
**Completion Date:** FY 2001  
**Status, FY 2000 M & E Report:** The Forest Service Roadless Area Policy has delayed completion.

#### 6. Forest Health

- a) **Action:** Due to outbreak of red oak borers, implement strategy for oak sustainability. (See recommendation 4c, page 11)  
**Responsibility:** Ecosystem Staff Officer  
**Completion Date:** FY 2001  
**Status, FY 2001 M & E Report:** The Forest hired a full-time Oak Sustainability Coordinator. Strategy is being implemented.
- b) **Action:** Determine the appropriate scale at which fire dependent ecosystems should be restored and develop Forest-wide management plan for restoring these communities. (See recommendations 1v, page 6; and 4a, page 11)  
**Responsibility:** Forest Planners and Fire Management Officer  
**Completion Date:** FY 2001  
**Status, FY 2000 M & E Report:** Fire planners have assessed prescribed burning needs and are conferring with the US Fish and Wildlife Service (USFWS).

## 7. Fire

- a) **Action:** Continue to implement the National Fire Plan initiative.  
**Responsibility:** Fire Management (Supervisor's Office and Districts)  
**Completion Date:** On-going  
**Status, FY 2001 M & E Report:** Fire Team is implementing projects through prescribed burning and inventory of wildland-urban interface.
  
- b) **Action:** Complete work with USFWS in regard to 30,000-acre cap.  
**Responsibility:** Fire Management and Wildlife  
**Completion Date:** Spring FY 2002  
**Status, FY 2000 M & E Report:** Informal consultation is underway with USFWS to amend the Biological Opinion on Indiana Bat to allow prescribed burning for more than 30,000 acres per year.

# **APPENDIX D**

## **SUMMARY OF REVIEWS**

A Regional Office Fire Review was conducted across the Ozark-St. Francis National Forests on November 28 & 29, 2000.

Bill Wasley (National Law Enforcement Director) conducted an Informal Site Review in May 2001.

Fire Management provides Fire Readiness Reviews prior to both the spring and the fall fire seasons.

National Fire Management Analysis System (NFMAS) Review was held on September 28, 2001.

National Fire Plan Review conducted by the Washington Office in FY 2001.

The Regional Office conducted several reviews of our Management Indicator Species (MIS) documentation even though they did not physically come to the Forests.

Timber Management conducted several unannounced audits on various districts across the Forests.

# APPENDIX E

## UPDATED RESEARCH NEEDS

### Research needs previously identified:

- Evaluate the role of prescribed burning in fire-dependent and fire-associated ecological communities.
- Basic information on reptiles and amphibians of Ozark National Forest including occurrence, habitat relationships, special needs and suspected limiting factors. (on-going)
- Habitat relationships of PETS Species on the Ozark and St. Francis National Forests.
- Evaluation of minimum early successional habitat needs to support viable populations of early succession obligate birds such as Prairie Warblers, Yellow-breasted Chats and Blue-winged Warblers.
- Effects of silvicultural practices on flora and fauna in upland hardwoods with emphasis on PETS and Neotropical migratory birds. The study design for Neotropical birds should be similar to the Ouachita National Forest study but conducted in upland hardwood habitat.
- Importance of down and dead wood to wildlife in the Ozark and St. Francis National Forests.
- Evaluation of habitat needs for riparian dwelling wildlife of the Ozark and St. Francis National Forests.
- Basic information on how fires affect wildlife habitat in upland hardwood ecosystems.
- Basic inventory information on mollusks of the Ozark National Forest. This information is urgently needed since it has been discovered that the Zebra mussel is found in Lake Dardanelle. (on-going)
- Evaluation of habitat improvements for Neotropical Migrant and Native Birds. Improvements such as nest boxes, snag creation, and understory and midstory manipulation would be evaluated to see how effective they are in increasing bird populations.
- Evaluation of silvicultural activities on Cerulean Warbler habitat.
- Habitat use by endangered bats that inhabit Ozark National Forest caves. (on-going)
- Effects of ATVs on reproductive success of wildlife on the Ozark National Forest.
- Life history of the Longnose Darter (ecology and reproductive biology).
- Importance of seasonal streams to reproduction of fish in the Boston Mountains.
- Evaluation of stream habitat improvements on Smallmouth Bass in the Boston Mountains.

- Evaluate and monitor smoke impacts from prescribed burning activity.
- Evaluate and monitor growing season burning effects.
- Inventory Forest fuels and assess impacts of oak mortality on fuel loading.
- Evaluate and monitor the effects of prescribed burning in hardwood Forests on T & E species, specifically the Indiana Bat and the Red Bat.

### **Research Needs From Mid-Plan Review**

During the Mid-Plan Review in 1991, the Planning Team reviewed existing and planned research and developed additional research needs to be included in the Plan. Cooperative research with the University of Arkansas at Monticello, the Forest Experiment Stations, the Ouachita National Forest, and other partners on many projects is still underway. Future research topics recommended during the Mid-Plan Review were:

1. Large-scale, multi-resource studies to determine effects of different management practices on ecosystems.
2. Prescribed burning effects on soil productivity, characteristics, and nutrient cycling.
3. Public expectations of uneven-aged timber management.
4. Document resource demands, specific to the Ozark-St. Francis National Forests for water, recreation, wildlife, and minerals.
5. Riparian area fish and wildlife needs (habitat dependent species.).
6. Old growth needs--
  - dependent species.
  - treatments for dependent species.
  - definition of Ozark-St. Francis National Forests old growth vegetation.
  - description of Pre-European settlement environment.
7. Habitat needs for neo-tropical migrants.
8. Habitat relationships of protected, endangered, threatened, and sensitive wildlife species.
9. Authenticated habitat capability models for management indicator and other selected species.
10. Watershed condition including stream stability determination for LMP

11. Recreation marketing, customer surveys and analysis for--
  - dispersed recreation
  - developed recreation
  - wild and scenic rivers
  - scenic byways
  - wilderness use

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