

**Ozark-St. Francis
National Forests
Monitoring & Evaluation Report
2000**



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

 8/6/01
DATE

Executive Summary

Several items from the 1999 Monitoring and Evaluation Report were nearing completion in 2000:

- An Off-Highway Vehicle plan has been developed.
- The St. Francis National Forest is completing an Environmental Assessment for development of a State Park.
- Fire planners are assessing prescribed burning needs, with plans to complete a Forest Plan Amendment.

Items in the 1999 Action Plan that have not been completed:

- Limits of Acceptable Change standards need to be applied on several districts.
- Rotary Ann and Cove Lake facilities are still not ready for contracting.
- Districts need information to guide them in designating old growth prescriptions.
- A fisheries management plan for the forest needs to be developed.
- Future management of Special Interest Areas needs to be resolved.
- A new implementation schedule for wildlife and range improvements needs to be completed.

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

A lawsuit filed by the Sierra Club, et al., in Region 8 centered around monitoring of Management Indicator Species (MIS). The forest compiled all known monitoring data that was available for the MIS on the forest and displayed this information in a document titled "Management Indicator Species Population and Habitat Trends". In some instances, monitoring will have to be expanded. In most cases, these MIS will need to be re-evaluated during Plan Revision.

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

There are plans to complete an amendment to restore fire dependent ecosystems on the forest.

Due to the outbreak of red oak borers, the forest will develop a strategy for oak sustainability.

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 2000 (October 1, 1999 - September 30, 2000). 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 around monitoring of Management Indicator Species (MIS).

The lawsuit was settled on May 16, 2001, but since this M & E report covers only FY 2000, findings and recommendations for MIS were extrapolated from compilation of information for the settlement. This information is believed to be accurate for this report. Management Indicator Species are divided 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.

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 - 1999 reflects a slightly increasing trend, however, harvest numbers have declined for the past three years. This decline could be due in part to the lack of early seral habitat on which this species depends. This assumption is supported by the fact that harvest records for private lands are increasing during the same three-year period. In addition, over the past three years the Ozark-St. Francis has been experiencing a severe drought, which could negatively impact deer populations.
Recommendation: Keep as an indicator species. Create more early seral habitat. Continue to monitor deer populations and habitat conditions.
- 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: Continue to implement protective measures indicated in the recovery plans for these species, and monitor for these species.
- 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 2000 is a good 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 2000. CompATs computer model shows increasing squirrel habitat capability.
Recommendation: Continue to monitor squirrel habitat. Develop monitoring plan for Gray Squirrel.

- 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.
Recommendation: Keep as an indicator for demand species.

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 2000 was the second highest ever recorded, which would indicate an increase in the population for 2001.
Recommendation: Continue to monitor turkey populations and habitat.
- 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.
Recommendation: Continue to monitor populations of Pileated woodpeckers.
- 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: Continue to monitor, expand and maintain existing habitat with the use of prescribed burning and Wildlife Stand Improvement. Develop a monitoring/management plan for this species.
- 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 increasing trend in Yellow Breasted Chat populations. Habitat for this species appears to be declining due to decreasing timber management activities.
Recommendation: Continue to monitor Chat populations and habitat.
- 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: Continue to monitor Red-Shouldered Hawk populations and habitat.

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: Continue to monitor the population and habitat for Smallmouth bass. Expand the Forest Plan's monitoring scheme to include repeated measures of specific sites.
- 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: Continue to monitor populations and habitat for these species. Expand the forest monitoring scheme to include repeated measures at specific sites.

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.
Recommendation: Place a greater emphasis on enforcement of the ginseng moratorium by law enforcement personnel. Develop permanent monitoring stations in known ginseng populations. Continue to monitor ginseng populations.
- 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.
Recommendation: Continue to monitor this species. Expand monitoring with permanent monitoring stations.
- 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: Continue to monitor this species. Expand monitoring scheme to provide more quantitative measures of trends such as monitoring permanent transects.
- 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: Continue to monitor and inventory this species.

- 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: The Forest Plan called for approximately 13% (150,000 acres) of old growth prescriptions to be applied during the current planning period. At this time, our CISC database identifies 71,760 acres under old growth management.
Recommendation: 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 Ecosystems Staff Officer should ensure that this new criteria for old growth status be followed to complete a preliminary inventory of candidate old growth stands prior to Forest Plan revision.
- r) **Management Requirement:** Minimize disturbance to nesting turkeys during the peak nesting season.
Findings: Progress is being made in reducing disturbance.
Recommendation: Continue to close unneeded roads with public support for closure and NEPA documentation/decision.
- 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. All lake management plans are developed in cooperation with the AG&FC.
Recommendation: Ecosystems Staff Officer should prepare a management plan for the rest of the forests' waters during Plan Revision.
- 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 7,579 acres in 2000 for wildlife improvements. The target is 600 - 1,000 acres per year.
Recommendation: Increase prescribed burning acreage in Revised Plan.
- w) **Plan Goal:** Wildlife Opening Maintenance
Accomplished: 240 acres of wildlife openings were maintained in 2000. The target is 240 acres per year.
Recommendation: Develop new implementation schedule.
- x) **Plan Goal:** Food Plot Maintenance
Accomplished: 520 acres of food plots were maintained in FY 2000. The Plan target is 30 acres per year.
Recommendation: The implementation schedule is too low and needs to be increased to reflect level that would maintain established plots.
- y) **Plan Goal:** Wildlife Opening Development
Accomplished: No acres of wildlife openings were developed in FY 2000. The Plan target is 0 - 40 acres per year.
Recommendation: None.
- z) **Plan Goal:** Food Plot Development
Accomplished: 22 acres of food plots were developed in FY 2000. The Plan target is 0 - 40 acres per year.
Recommendation: The implementation schedule needs to reflect Plan Goals.
- aa) **Plan Goal:** Seeding and Planting
Accomplished: 122 acres were seeded and planted in FY 2000. The Plan target is 0 - 40 acres per year.
Recommendation: The implementation schedule needs to reflect Plan Goals.
- bb) **Plan Goal:** Wildlife Stand Improvement
Accomplished: 553 acres were improved. The Plan target is 100 - 300 acres per year.
Recommendation: Districts comply when funds are adequate.
- cc) **Plan Goal:** Pond Construction
Accomplished: 6 ponds were completed. The Plan target is 0 - 50 ponds per year.
Recommendation: Revise implementation schedule to reflect Plan Goals.
- dd) **Plan Goal:** Fish Cover Establishment
Accomplished: 25 structures were completed. The Plan target is 10 structures per year.
Recommendation: The plan level needs to increase to 100 structures per year.
- ee) **Plan Goal:** Non-structural Fish Habitat Improvement
Accomplished: 911 acres of habitat improvement were completed. The Plan target is 120 acres per year.

Recommendation: The Plan level needs to reflect current and projected needs of 400 acres per year.

- ff) **Plan Goal:** Wildlife Improvement Projects to be added
Accomplished: The Plan is not applicable to several wildlife improvement projects.
Recommendation: The Plan 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 2000.
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 2000.
Recommendation: None.
- d) **Plan Goal:** Prescribed Burning for Forage Improvement
Accomplished: The districts burned 0 acres for forage improvement in FY 2000. The Plan target is 2,000 acres per year.
Recommendation: The implementation schedule needs to reflect shift of grazing to improved pastures.
- e) **Plan Goal:** Bush-hogging for Range Improvement
Accomplished: 2,000 acres were bush-hogged by permittees as a term of their contract. The Plan target is 2,000 acres per year.
Recommendation: The Plan needs to assess use and decrease acreage.
- f) **Plan Goal:** Pasture Fertilization
Accomplished: Permittees fertilized 1500 acres. The Plan target is 1,000 acres per year.
Recommendation: Plan needs to assess use and decrease acreage.
- g) **Plan Goal:** Seeding Pastures for Forage Improvement
Accomplished: 65 acres of pasture were seeded for forage improvement. The Plan target is to seed 1,000 acres per year for forage improvement.
Recommendation: The Plan needs to reflect current and projected needs.

- h) **Plan Goal:** Fencing
Accomplished: 1.2 miles of fencing were completed. The Plan target is seven miles of fencing per year.
Recommendation: The Plan needs to assess maintenance and replacement of fencing, rather than new miles.
- i) **Plan Goal:** Pond Construction
Accomplished: 2 ponds were constructed. The Plan target is 10 ponds per year.
Recommendation: Reduce in Plan to reflect current and projected needs.
- j) **Plan Goal:** Corral Construction
Accomplished: One corral was constructed in FY 2000. The Plan target is two corrals per year. Portable corrals improve resource conditions versus permanent corrals.
Recommendation: The Plan needs to assess this activity.
- k) **Project:** Conversion of Fescue Pasture to Native Species
Accomplished: 200 acres received weed treatment.
Recommendation: The districts need to proceed with conversion for ecological and livestock health and reproductive reasons.

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 10 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 two timber sales showed most BMPs were implemented and effective. One road reconstruction project was monitored that did not have adequate erosion control installed through wet weather. Two prescribed burn units were monitored. Drainage from firelines into stream channel was a concern.
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 eight 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 2000, there were no detectable levels of Triclopyr or Glyphosate in any sample.
Recommendation: None.
- 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 Forest has coordinated with the Arkansas Department of Health regarding methodology, reporting, and 2000 results. In 1998, the state of Arkansas began monitoring public contact waters for *E. coli* bacteria. The Ozark-St. Francis monitors six of their beaches for this organism and continues monitoring for fecal coliform at the other five. The only beach closure was at Barkshed on North Sylamore Creek.
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.

- 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 have identified roads no longer needed for management. They will be closed as funding allows.
Recommendation: Districts should inventory stream crossings and floodplain roads and correct problems as funding permits. Use available technology and larger 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 current and provides direction for all Forest fire policies. Prescribed burning continues to grow on the National level. Forest backlog is due to low acre accomplishment during the early years of the plan. Prescribed burn accomplishments are currently listed in several program areas: wildlife, range, timber stand improvement, and fuel treatment.
Recommendation: Fire Management will update, as necessary, the Fire Management Analysis to meet the needs of both the Ozark-St. Francis and Ouachita National Forests. Districts should achieve their prescribed burn targets annually. Oversight of fire management activities should be moved into one program. Investigate elevating the 30,000-acre cap on prescribed burning to better address ecological and fuel treatment needs.

- b) **Item:** Fire Suppression (LRMP, Chapter 5)
Variance Allowed: Significant deviations from Fire Management Action Plan objectives.
Findings: There were 64 fires in FY 2000, burning 2,014 acres. This is about twice as many acres burned as in FY1999. 2000 was a record drought year in Arkansas.
Recommendation: None.

- 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 plans to complete aerial surveys over the most heavily impacted areas on the Forest in FY 2001.
Recommendation: The Forest should develop a 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: The Bayou and Sylamore Districts are still in the process of determining the Limits of Acceptable Change (LAC). The Buffalo District has applied the LAC process for wilderness areas.
Recommendation: Bayou and Sylamore Districts need to determine whether Buffalo District LAC standards apply to their wilderness areas.

- 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, developed rehabilitation plans, and continued to work with user groups to develop trails or sign existing trails and to establish a network of OHV trails. Mill Creek ATV area is currently open, and planning work has begun on the Lee Creek System.
Recommendation: Forest will continue to work with user groups to identify potential areas for development of future trails. Forest Supervisor has formed small group to analyze effects and make recommendations. A strategy to deal with impacts is being developed.
- 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.
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 this year. These new regulations require negotiation of new Programmatic Agreements with the State Historic Preservation Office (SHPO) and the Tribal Historic Preservation Office (THPO).
Recommendation: Forest Archeologist will continue to work with SHPO and THPO on developing appropriate agreements. They will continue to complete inventory, evaluation and protection programs under current agreements until new ones are developed.

- i) **Item:** Wilderness (LRMP, Chapter 5)
Variance Allowed: Soil movement or exposure and/or vegetation loss reaches Limits of Acceptable Change (LAC).
Findings: The districts are still in the process of developing the LAC standards. LAC has been completed for wilderness areas included in Wild Scenic River corridors.
Recommendation: When the districts have completed developing LAC standards, include as part of the Forest Plan revision.
- j) **Management Requirement:** Use Executive Orders, regulations, FSM, and Forest Off Highway Vehicle (OHV) Direction Statement to manage OHV use.
Findings: The Forest continued to work with user groups to identify and establish OHV use areas. The Forest coordinated with the Arkansas Game & Fish Commission to include "Tread Lightly" in hunter education programs, materials and other media. The Forest has not finished implementation of the public affairs plan to inform the public of OHV policy and opportunities, since the inventory process is not completed. There is a road closure order for all closed roads.
Recommendation: Forest will continue to work with user groups to identify potential areas for development of trails. The OHV team is working on implementing the overall OHV plan.
- k) **Management Requirement:** Manage trail system to provide a variety of opportunities.
Findings: The Forest has met 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.
Recommendation: None.
- l) **Management Requirement:** Inventory and classify caves as they are discovered and maintain file in each district office.
Findings: The Sylamore Ranger District developed a MOU in 1997 with "The Association for Arkansas Cave Studies, Inc." (AACCS). This MOU (three years) allows AACCS to assist the Forest Service in first entry inventories of caves and their contents. Information is updated bi-annually or as needed. There is a forest-wide Challenge Cost Share Agreement to monitor undeveloped caves with known TES species. Caves that are recreational are monitored by a permit system. 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 Plan was amended in December 1993, to provide a special management area for the six rivers that were designated by Congress. The Forest completed comprehensive management plans for each river and completed Amendment #8 to the Forest Plan.
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 started the analysis process to determine feasibility of partnership with State Parks to manage and improve recreation facilities on the St. Francis. The Forest installed one "Sweet Smelling Toilet" on the Forest in FY 2000.
Recommendation: The Public Services Staff Officer and St. Francis District Ranger should complete feasibility recommendations for the St. Francis. Contracts need to be awarded for Rotary Ann and Cove Lake rehab projects. Work needs to be completed at Long Pool Campground rehab.
- 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 2000, the Forest constructed/reconstructed four miles of trail compared to 12 miles anticipated in the Plan. Through FY 2000, the Forest has built 139 miles of trail instead of the 20 miles anticipated in the Plan.
Recommendation: Complete Brock Creek and Lee Creek trails.
- s) **Plan Goal:** FY 2000 Challenge Cost-Share Partnerships
Findings: In FY 2000, 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.

- u) **Plan Goal:** Protection of Heritage Resources
Findings: The Forest Archeologist did not develop a plan for site protection because revision of the Forest Plan has been delayed. The Forest continues to monitor known sites for vandalism and continues to investigate reports of vandalized sites.
Recommendation: None.

- v) **Plan Goal:** Ozark Interpretive Association (OIA)
Findings: OIA's 2000 sales were \$127,336.
Recommendation: None.

- w) **Plan Goal:** Developed Site Administration
Findings: In FY 2000, 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 \$746,495 under the RFDP rules, returned \$704,674 to the Forest. Funds (\$754,358) 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 12,000 acres per year as projected in the Forest Plan.
Findings: Archaeologists completed fieldwork on all FY 99 and some FY 2000 projects.
Recommendation: 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. Forest Archeologist should remove inventory activity level as a point to monitor during Plan revision.

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 2000 complies with this recommendation.

The Forest Plan established an Allowable Sale Quantity (ASQ) for the 14 year Plan period of 124.8 MMCF. The total volume sold through the first 14 years (FY 87 - FY 2000) is 112.3 MMCF or 85% of the planned amount for this period. The downfall is due to reduced volumes sold in FY 90 - FY 95 as a result of administrative appeals, lawsuits and reduced funding for subsequent years.

The Forest sold 7.7 MMCF in FY 90, 4.1 MMCF in FY 91, 7.8 MMCF in FY 92, 7.2 MMCF in FY 93, 7.4 MMCF in FY 94, and 6.7 MMCF in FY 95 compared to a projected annual average of 9.6 MMCF as established by the ASQ. Total volume offered is within the allowable 15% variance after 14 years. Target allocation for FY 2001 is expected to be 6.4 MMCF.

Recommendation: None.

- b) **Item:** Silvicultural Exams and Prescriptions (LRMP, Chapter 5)
Variance Allowed: 15% at 5-year intervals.
Findings: After 14 years implementing Plan direction, the Forest has accomplished 59% 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 14 years of operation under the Plan, 59,623 acres have been reforested compared to a projected 71,280 acres. This is 84% of planned. The 3,511 acres reforested in FY 2000 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 14 years of the Plan, the Forest sold 35,026 even-aged regeneration acres compared to a projected 59,500 acres, 59% of the acreage planned. Use of uneven-aged harvest methods has been considerably lower than planned. Hardwood group selection cutting was at 26% of planned and pine selection cutting was at 35% of planned after 14 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: The Forest Supervisor and Ecosystems Staff Officer will continue to provide districts with information on acres sold by type of cut. District Rangers will use this information to guide decisions to better comply with LRMP goals.
- e) **Item:** Timber Stand Improvement (LRMP, Chapter 5)
Variance Allowed: 15% at 5-year intervals.
Findings: TSI accomplishment is well below planned acreage.
Recommendation: The Ecosystems Staff Officer will analyze and develop new TSI goals as part of the Plan revision.

- 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 for 2000 were below the Plan level. Area Consents have been updated.
Recommendation: Technical Services Staff Officer will continue to monitor lease demand and revise projected Plan outputs during Plan revision.
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. At the end of 2000, the Forest was still below projected Plan level due to lack of land exchange funds.
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: For 2000, the variance from the annual goal was 38%. 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: For 2000, the variance from the annual goal was 72%.
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: In FY 2000, the amount of road construction and reconstruction was 14% (11 miles) of that predicted in the Forest Plan (79 miles per year). For the 14-year period (1987-2000), the amount was 62% of that predicted (49 miles vs. 79 miles) per year.
Recommendation: During Plan revision, the Forest Engineer 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, and 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.

TABLE I

ACTUAL FOREST EXPENDITURES COMPARED TO FOREST PLAN BUDGET

| <u>ACTIVITY</u> | <u>FOREST PLAN BUDGET¹</u> | <u>ACTUAL 2000 EXPENDITURES</u> |
|---|---|-------------------------------------|
| Timber | \$4,344,000 | \$4,261,000 |
| Wildlife / Fish / PETS | 761,000 | 678,000 |
| Recreation/ Wilderness / Heritage ² | 1,873,000 | 2,471,000 |
| Law Enforcement | 0 | 60,000 |
| Fire | 1,405,000 | 1,439,000 |
| Lands | 395,000 | 404,000 |
| Minerals | 268,000 | 209,000 |
| Engineering | 2,505,000 | 3,423,000 |
| Soil / Water / Air | 365,000 | 107,000 |
| General Administration | 1,815,000 | 1,363,000 |
| Range | 80,000 | 118,000 |
| Ecosystem Inventory, Monitoring, Planning ³ | 1,237,000 | 961,000 |
| TOTAL | \$15,048,000 | \$15,494,000 |

¹The figures in this column represent about 3 percent above 1998 "Level 3" budget which was based on "Level 3" funding in 1996.

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

³The 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> |
|--------------------------------------|--------------|----------------|
| <u>Recreation</u> | | |
| *Water System | each | 1 |
| *Flush Toilets | each | 1 |
| Campground | area | 5 |
| Swim Site Expansion | area | 2 |
| <u>Range</u> | | |
| 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 |
| <u>Timber</u> | | |
| Examination & Prescription | acres | 641,051 |
| <u>Soil, Water, & Air</u> | | |
| Watershed Maintenance | acres | 616 |
| <u>Lands</u> | | |
| Property Line Location | miles | 869 |
| Landline Maintenance | miles | 595 |
| <u>Fuel Treatment</u> | | |
| **Prescribed Burning | acres | 8,263 |
| <u>Wildlife</u> | | |
| 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 2000 is the fourteenth year of the Plan, and the Plan objectives were based on a 10-year period, projections were extended proportionally.

| ACTIVITIES | UNITS | LRMP Ob¹ | FY87-FY96 | FY 97 | FY 98 | FY 99 | FY2000 | % PLAN |
|---------------------------------|--------------|----------------------------|------------------|--------------|--------------|--------------|---------------|---------------|
| <u>RECREATION</u> | | | | | | | | |
| Use Administration | PAOT-D | na | 12.6 MM | 1.3 MM | 1.3MM | 1.4MM | 1.4MM | na |
| Trail | | | | | | | | |
| -Construction/Reconstruct. | miles | 114 | 141.5 | 10 | 2 | 4 | 4 | 142% |
| -Maintenance | miles | na | 142.5 | 75 | 128 | 144 | 144 | na |
| Cultural Resource | | | | | | | | |
| -Inventory | acres | 156,000 | 181,145 | 20,384 | 25,464 | 19,722 | 19,722 | 171% |
| -Evaluation | sites | na | 112 | 26 | 42 | 36 | 36 | na |
| Wilderness Administration | PAOT-D | 1,736,800 | 1,339,000 | 133,600 | 133,600 | 133,600 | 133,600 | 108% |
| <u>WILDLIFE & FISHERIES</u> | | | | | | | | |
| Prescribed Burning | acres | 10,400 | 18,713 | 1,738 | 3,583 | 5,860 | 7,579 | 360% |
| Wildlife Opening Maint. | acres | 2,717 | 1,749 | 78 | 320 | 384 | 240 | 102% |
| Food Plot Maint. | acres | 312 | 1,948 | 308 | 60 | 538 | 520 | 1,081% |
| Wildlife Opening Dev. | acres | 338 | 959 | 34 | 38 | 59 | 0 | 322% |
| Food Plot Dev. | acres | 78 | 1,127 | 61 | 21 | 7 | 22 | 1,587% |
| Wildlife Stand Improvement | acres | 1,404 | 330 | 225 | 447 | 812 | 553 | 169% |
| Seeding and Planting | acres | 260 | 2,117 | 1,661 | 170 | 461 | 122 | 1,743% |
| Pond Construction | structures | 416 | 377 | 30 | 18 | 25 | 6 | 110% |
| Fish Cover Dev. | structures | 130 | 322 | 7 | 12 | 15 | 25 | 293% |
| Pond Fertilization | acres | 1,560 | 858 | 30 | 200 | 375 | 911 | 152% |
| <u>RANGE</u> | | | | | | | | |
| Prescribed Burning | acres | 26,000 | 1,250 | 66 | 30 | 295 | 0 | 6% |
| Brush Hogging | acres | 26,000 | 2,698 | 800 | 160 | 500 | 2,000 | 24% |
| Fertilization | acres | 13,000 | 2,898 | 800 | 0 | 500 | 1,500 | 44% |
| Seeding | acres | 13,000 | 167 | 20 | 40 | 85 | 65 | 3% |
| Fencing | miles | 91 | 7 | 0 | 2 | 5 | 1.2 | 17% |
| Pond Construction | structures | 130 | 18 | 0 | 7 | 3 | 2 | 23% |
| Corral Construction | structures | 26 | 1 | 0 | 0 | 1 | 1 | 12% |
| <u>SOIL AND WATER</u> | | | | | | | | |
| Watershed Improvements | acres | 325 | 419 | 20 | 27 | 48 | 30 | 167% |
| Watershed Maintenance | acres | 1,664 | 767 | 25 | 10 | 10 | 10 | 49% |
| Soil & Water Inventory | acres | na | 134,174 | 10,000 | 8,080 | 8,000 | 4,000 | 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).

¹ 14 year LRMP objective.

TABLE III continued

| ACTIVITIES | UNITS | LRMP Ob ¹ | FY87-FY96 | FY 97 | FY 98 | FY 99 | FY 2000 | % PLAN |
|-------------------------------|--------|----------------------|-----------|--------|--------|--------|---------|--------|
| <u>TIMBER²</u> | | | | | | | | |
| Timber Vol. Offered | MCF | 124,800 | 85,562 | 9,971 | 8,177 | 7,070 | 6,952 | 94% |
| Timber Vol. Sold | MCF | 124,800 | 81,531 | 8,173 | 10,308 | 6,621 | 4,803 | 89% |
| Reforestation | | | | | | | | |
| -Hardwood | acres | 26,600 | 17,567 | 1,028 | 1,086 | 1,712 | 132 | 81% |
| -Pine | acres | 40,350 | 26,282 | 2,727 | 2,946 | 2,764 | 3,379 | 94% |
| TSI | | | | | | | | |
| -Hardwood | acres | 20,800 | 12,896 | 869 | 1,146 | 1,425 | 1,171 | 84% |
| -Pine | acres | 83,800 | 24,030 | 1,943 | 1,258 | 1,073 | 1,951 | 36% |
| EAM Cutting (Ac. Sold) | | | | | | | | |
| -Pine Clearcutting | acres | 20,150 | 8,767 | 47 | 0 | 0 | 0 | 44% |
| -Hardwood Clearcutting | acres | 14,000 | 8,838 | 5 | 0 | 0 | 0 | 63% |
| -Pine Seedtree | acres | 10,300 | 6,755 | 1,933 | 1,236 | 817 | 454 | 109% |
| -Pine Shelterwood | acres | 5,400 | 862 | 301 | 331 | 295 | 247 | 38% |
| -Hardwood Shelterwood | acres | 5,500 | 2909 | 41 | 544 | 367 | 269 | 75% |
| UAM Cutting (Ac. Sold) | | | | | | | | |
| -Hardwood Group Selection | acres | 54,600 | 12,354 | 516 | 12,354 | 889 | 152 | 48% |
| -Pine Selection | acres | 27,000 | 6,841 | 625 | 1,743 | 760 | 385 | 38% |
| Pine/Hardwood Thinning | acres | 82,600 | 50,241 | 7,011 | 6,026 | 4,784 | 5,974 | 90% |
| Exam. & Prescription | acres | 1,430,000 | 767,843 | 56,677 | 32,705 | 13,283 | 32,719 | 63% |
| <u>FUEL TREATMENT</u> | | | | | | | | |
| Prescribed Burning | acres | 65,000 | 30,143 | 8,205 | 11,123 | 20,266 | 22,583 | 142% |
| <u>ROAD WORK</u> | | | | | | | | |
| Reconstruction/Construction | miles | 1,021 | 535 | 62 | 38 | 37 | 11 | 67% |
| <u>LANDS & MINERALS</u> | | | | | | | | |
| Mineral Leases ³ | Leases | 3,388 | 6,814 | 60 | 31 | 42 | 32 | 206% |
| Land Acquisition ⁴ | acres | 5,616 | 18,710 | 557 | 769 | 1,361 | 529 | 390% |
| Land Exchange | acres | 10,400 | 3,016 | 334 | 143 | 1,074 | 329 | 47% |
| Boundary Location | miles | 1,300 | 503 | 13 | 9 | 6 | 4 | 41% |
| Landline Maintenance | miles | 2,600 | 1,853 | 41 | 42 | 70 | 0 | 77% |
| Right of Way Acquisition | number | na | 210 | 10 | 11 | 3 | 8 | 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

¹ 14 year LRMP objective. LRMP OBJ Column for Timber represents a weighted average of 4 years under the original Forest Plan and 10 years under the amended Forest Plan.

² Hardwood and Pine Selection acres are gross stand acres.

³ Energy and non-energy processed.

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

III. 2000 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

1. Recreation, Heritage, and Wilderness

- a) **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 12)
Responsibility: Forest Archaeologist
Completion Date: On-going
- b) **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
Completion Date: On-going

2. Wildlife, Fish and Range

- a) **Action:** Make an annual count of the bats and install gates on the caves, if necessary. (See recommendation 1b, page 2)
Responsibility: District Rangers with Indiana or Gray Bat Colonies
Completion Date: On-going
- b) **Action:** Continue to minimize disturbance to turkeys during nesting.
(See recommendation 1r, page 5)
Responsibility: District Rangers
Completion Date: On-going

3. 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 16)
Responsibility: Ecosystems Staff Officer & Forest Supervisor
Completion Date: Each fiscal year

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 8; and 3i, page 10)
Responsibility: Forest Soil Scientist & Forest Hydrologist
Completion Date: On-going
- b) **Action:** Include BMPs in design and construction of stream crossings. (See recommendations 3b, page 8; and 3i, page 10)
Responsibility: District Rangers & Technical Services Staff Officer
Completion Date: On-going
- c) **Action:** Coordinate with the Arkansas Department of Health for consistency in monitoring swim areas. (See recommendation 3f, page 9)
Responsibility: Forest Hydrologist
Completion Date: On-going
- d) **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
Completion Date: On-going

5. Protection

- a) **Action:** Due to outbreak of red oak borers, the Forest should develop a strategy for oak sustainability, using the most current scientific and silvicultural techniques. (See recommendation 4c, page 11)
Responsibility: Ecosystem Staff Officer
Completion Date: FY 2001

B. Actions Requiring Amendment or Revision to the Forest Plan

1. Recreation, Heritage, and Wilderness

- a) **Action:** Incorporate monitoring systems for recreation activities and include Limits of Acceptable Change (LAC) for Wilderness Areas. (See recommendations 1b, page 11; and 1i, page 13)
Responsibility: Public Services Staff Officer, Forest Landscape Architect
Completion Date: Plan Revision
- b) **Action:** Include new Scenery Management System guidelines in Plan Revision. (See recommendation 1f, page 12)
Responsibility: Forest Landscape Architect
Completion Date: During Plan Revision

- c) **Action:** Remove acreage of heritage resource inventory as a Forest Plan monitoring requirement and establish a site evaluation activity level.
(See recommendation 1x, page 15)
Responsibility: Public Services Staff Officer
Completion Date: During Plan Revision

2. Wildlife, Fish and Range

- a) **Action:** Develop appropriate monitoring systems and goals for a number of habitat types and species. (See recommendations on pages 2 - 7)
Responsibility: Ecosystems Staff Officer
Completion Date: On-going, to be included in Plan Revision

3. Timber

- a) **Action:** Revise the TSI activity level to reflect changing needs for TSI.
(See recommendation 2e, page 16)
Responsibility: Ecosystems Staff Officer
Completion Date: Plan Revision

4. Facilities

- a) **Action:** Revise the road reconstruction/construction activity schedule to reflect that this activity need is a result of resource management decisions.
(See recommendation 5a, page 18)
Responsibility: Technical Services Staff Officer
Completion Date: Plan Revision

5. Lands and Minerals

- a) **Action:** Revise the projected lease activity level to reflect demand changes.
(See recommendation 3a, page 17)
Responsibility: Technical Services Staff Officer
Completion Date: Plan Revision
- b) **Action:** Adjust the projected land exchange, property boundary location and property boundary maintenance levels to reflect more realistic activity level.
(See recommendations 4b, c and d, page 17)
Responsibility: Technical Services Staff Officer
Completion Date: Plan Revision

C. Amendments to be Completed

1. **Amendment Description:** PETS Amendment - This 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 2000
Status: A strategy paper will be completed in 2001 to assess the necessity of a Plan Amendment.
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: FY2000
Status: A strategy paper will be completed in 2001 to access the necessity of a Plan Amendment.
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 2000
Status: The Roadless Policy included many of the proposed SIAs. Until the controversy over these rules clears, it will be difficult to resolve the SIAs.
4. **Amendment Description:** Restoration of fire dependent ecosystems.
Responsibility: Fire Management Officer and Forest Planners
Proposed Date of Completion: FY 2000

APPENDIX A

FOREST INTERDISCIPLINARY TEAM

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

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|------------------|--------------------------------------|
| Steve Best | Forest Wildlife Biologist |
| Richard Bowie | Forest Landscape Architect |
| Jack Davis | Planner |
| Duane Dipert | Watershed and Planning Staff Officer |
| Howard Freerksen | Ecosystems Staff Officer |
| Cary Frost | Planner |
| Roger Fryar | Fire Management Officer |
| Deryl Jevons | Planner |
| Ron Klouzek | Technical Services Staff Officer |
| Gary Knudsen | Public Services Staff Officer |
| Connie Lee | Resource Support Assistant |
| 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)

APPENDIX C

STATUS OF 1999 RECOMMENDATIONS AND ACTION PLAN

Many of the recommendations from the 1999 Monitoring and Evaluation Report (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 that have a completion date other than "on-going" or "Plan Revision":

- 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 11)
Responsibility: Bayou, Sylamore, Buffalo District Rangers
Completion Date: FY 2001
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 well developed, EA for development of Mississippi River State Park underway, and Rotary Ann and Cove Lake still not ready for contracting. Long Pool Campground nearing completion in 2000.
- c) **Action:** Provide Districts with information to guide them in designating old growth prescriptions on 13% of the Forest. Correct CISC database to account for discrepancies between prescriptions and database. (See recommendation 1q, page 5)
Responsibility: Ecosystems Staff Officer; Watershed and Planning Staff Officer, District Rangers
Completion Date: FY 2000 and on-going
Status, FY 2000 M & E Report: This has not been done. One planner position vacant.
- d) **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: None. Fish Biologist position vacant.

- e) **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.
- f) **Action:** Complete surveys to determine future management direction for proposed additions to Special Interest Areas. (See recommendation 1q, page 14)
Responsibility: District Rangers and Forest Planners
Completion Date: FY 2001
Status, FY 2000 M & E Report: The Forest Service Road Policy has delayed completion.
- g) **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, page 4)
Responsibility: Ecosystems Staff Officer
Completion Date: FY 2001
Status, FY 2000 M & E Report: Biologists started working on a strategy in FY 2000.
- h) **Action:** Develop a new implementation schedule for wildlife and range improvements. (See recommendations on pages 6 - 8)
Responsibility: Ecosystems Staff Officer
Completion Date: FY 2001
Status, FY 2000 M & E Report: None.
- i) **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 10)
Responsibility: Forest Planners and Fire Management Officer
Completion Date: FY 2001
Status, FY 2000 M & E Report: Fire planners are assessing prescribed burning needs. A Forest Plan Amendment should be prepared.

APPENDIX D

SUMMARY OF REVIEWS

Fire Management provides functional assistance/fire readiness reviews on each Ranger District prior to both the spring and the fall fire season.

A Regional Office Fleet Monitoring Review was conducted for six of the seven districts on the Ozark-St. Francis National Forests and the Cass Job Corps Center on September 18-22, 2000. (See public files letter 7130 dated October 26, 2000, for letter transmitting final RO Monitoring Trip Report to districts/Cass Job Corps Center.)

Three OIG Reviews - June 1, 2000

KV Review - July 2000

Timber Activity Review - August 2000

APPENDIX E

UPDATED RESEARCH NEEDS

Research needs previously identified:

- Evaluate the role of fire dependent habitats such as glades and savannas in the overall health of the upland hardwood ecosystem.
- 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.

Prescribed burning effects on hardwoods and on soil productivity, characteristics, and nutrient cycling.

- Minimizing smoke impacts from prescribed burning activity.
- Growing season burning effects.
- The importance of fire to the hardwood ecosystem.
- Ecological consequences of not regenerating hardwood stands within the next 50 to 150 years.
- 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. Recreation marketing, customer surveys and analysis for--
 - dispersed recreation
 - developed recreation
 - wild and scenic rivers
 - scenic byways
 - wilderness use

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