

United States  
Department of  
Agriculture

Forest  
Service

Mark Twain  
National Forest



# Mark Twain National Forest

## Annual Report

## Fiscal Year 1999

October 1, 1998 - September 30, 1999



Prescribed fire is being used to improve wildlife habitat. Marvin Dablemont uses a drip torch to start a prescribed fire in a field of native warm season grass.



Forest Supervisor Randy Moore (left) and Chief of the Forest Service Mike Dombeck inspect new growth in the area burned two months earlier. Chief Dombeck was on Mark Twain National Forest, for the video taping of a training film on the use of prescribed fire.

# Mark Twain National Forest 1999

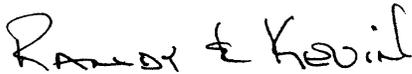
We all have good friends who provide a sounding board for us to discuss issues or situations. This annual report doesn't substitute for the personal interaction of friends, but provides yearly accomplishment milestones to start some of those kinds of discussions. This report was not designed to focus on how we conduct business, but to give us an overview - a look at accomplishments not only across one year but across the past decade. Reviewing this year's accomplishments in the context of recent years provides a clearer view of the direction our forest managers take in guiding forest resource management.

We often ask ourselves, "how do we feel about what has happened." As we review this report and look at these accomplishments, we think about reduced budgets and personnel, increasing mission requirements and more complex proposals to manage. Overall, however, we see tangible accomplishments toward those goals developed in the mid 1980's when the Forest Plan was approved.

The Forest Plan has served us well over the past years. Over time, demands on forest resources change along with what the public values. In the near future, we will take a good look at the current and future needs for forest resources and whether the national forest will be able to meet those needs. Part of this process is the Ozark-Ouachita Highlands Assessment, a series of technical reports that provides the best information available on conditions and trends in the Ozark-Ouachita Highlands (southern Missouri, central and northern Arkansas and western Oklahoma). This assessment was developed by the Forest Service as one tool we will use to revise the Forest Plan.

As we proceed in our review of the Forest Plan, one of the most important parts is your input. We need to know how you feel about what we have done in the past and what you want us to do in the future. Remember we will be asking everyone and listening to everyone. As a public agency charged with managing national forest lands, we will have to decide what demands the forest can meet and what it cannot. In order for us to know what you want and need from the national forest, you must become involved. Watch for information on Forest Plan revision.

We would also like to let you know that in the past year we have changed some key staff, including three new district rangers. Katie Stuart is now the district ranger for Potosi/Fredericktown, Henry Hickerson is our district ranger at Poplar Bluff, and Jerry Bird is the district ranger for Eleven Point/Doniphan. We are pleased to have these highly qualified professionals join the staff of Mark Twain National Forest.



Randy Moore            Kevin Elliott  
Forest Supervisor     Deputy Forest Supervisor

**THE FOREST PLAN** - The National Forest Management Act directed all National Forests to develop a plan to guide Forest managers. Mark Twain's Forest Plan was approved in 1986. It is designed to cover a period of up to fifteen years. Congress has suspended the updating of Forest Plans pending new Forest Plan regulations. The Forest Plan provides an integrated, multi-resource approach to forest and watershed restoration and maintenance.

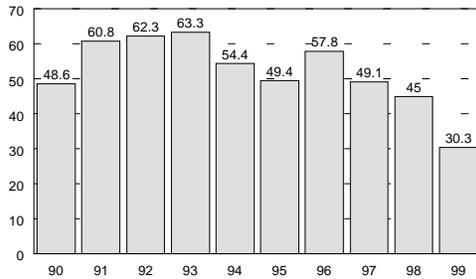
**FOREST PLAN MONITORING** - Each year, forest accomplishments are monitored and evaluated. This allows us to see if we are staying within Forest Plan standards and guidelines. It also lets us know if the Forest Plan need adjustments. This report highlights the results of Forest Plan monitoring.

**APPROPRIATED DOLLARS** - When the Land and Resource Plan was developed, plan objectives were set at 100% funding. In the reality of management, most programs are not completely funded. Since the implementation of the Plan, the Forest has operated with an average funding of 49.1%. Congress sets funding levels for programs. Some programs are funded at 100%, others are not funded and are often accomplished in conjunction with a funded project, through partnership money or by volunteers. This should be taken into account as you interpret the data.

**MINERALS** - Fiscal Year 1999 showed an increase in royalty payments. Royalty payments come from private mining companies that mine minerals from beneath Mark Twain National Forest. Bureau of Land Management (BLM) manages the minerals owned by the federal government. BLM leases the mineral rights to private companies who in turn pay a percent of the value of the mined minerals as a royalty payment to the federal government. The federal government turns twenty-five percent of the royalty payment over to the state to distribute to counties with national forest lands. Payments to counties are prorated on the number of acres of national forest in the county and are to be used for schools and roads. All counties that have national forest lands receive this benefit, not just those where minerals are mined.

## TIMBER PRODUCTION

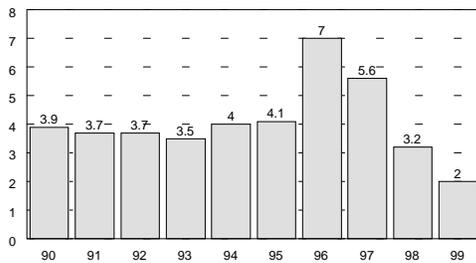
MMBF



The volume of timber sold has continued to decline to 30.3 million board feet (mmbf) for Fiscal Year (FY) 1999. The use of clear-cutting and shelterwood harvesting increased slightly while seedtree harvesting modestly decreased. Overall there was a modest decrease in even-aged management (EAM). Total acres sold were only 6,050 compared to 13,005 acres in 1998. Uneven-aged management (UAM) and commercial thinning accounted for nearly two-thirds of the total acres sold.

## TIMBER STAND IMPROVEMENT

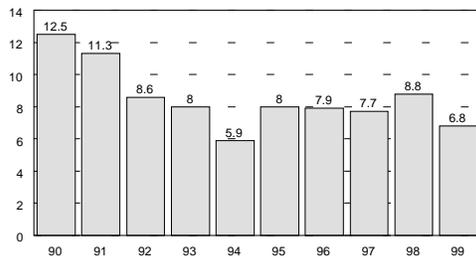
1,000 ACRES



Timber stand improvement (TSI) is done to improve the quality of the timber stands in the forest. This is accomplished by thinning and removing unwanted vegetation, allowing the remaining trees to grow healthier and more vigorously. TSI once again decreased from 3,206 acres in FY 98 to a low of 2,018 acres in FY 99. Most TSI is done in young stands of timber to ensure desired growth and development.

## REFORESTATION

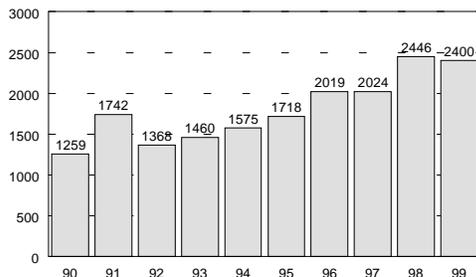
1,000 ACRES



Reforestation decreased slightly to 6,849 acres in FY 99. Almost all the acres were reforested by natural regeneration. Natural regeneration occurs when new trees sprout from the stumps of harvested trees or are naturally established from seed. Planting new trees accounted for less than one percent of the acres reforested. Areas that are harvested are monitored to ensure that all forested stands have been adequately restocked.

## RECREATION USE

1,000 RVDs (1)

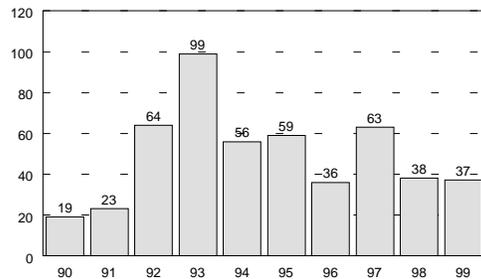


Recreation use dropped slightly in FY 99, to about 2,400,000 recreation visitor days (RVD's). These figures do not include use in Wilderness or wildlife related uses such as hunting and fishing, which are reported elsewhere in the report. This was the first year Sutton Bluff Motorcycle/ATV area and the third year Chadwick Motorcycle/ATV area was operated as a National Fee Demonstration Project allowing Mark Twain National Forest to retain a minimum of 80% of the fees collected for operation, maintenance and improvements. In Fiscal year (FY) 1999, \$6,600 was collected in this program. The number of recreation sites operated by concessionaires decreased from 12 to 10. In conjunction with Missouri Department of Conservation, construction was started on a new recreation facility with a boat launch on the Black River near Hendrickson in Butler County.

**HERITAGE RESOURCES** - Before any forest management can be done on national forest lands, a heritage resource survey must be done. In FY99, 190 new sites, both prehistoric and historic, were located. Archaeological surveys, site evaluations, site mitigation, interpretive projects, and public volunteer opportunities were supported through challenge cost-share agreements with University of Arkansas, Fort Leonard Wood, Missouri Historic Preservation Program and Historic Preservation Associates. Passport In Time program volunteers provided archeological research assistance at the Huff site, a prehistoric and historic pioneer cabin resource along the Eleven Point River.

### Trail - Construction / Reconstruction

Miles

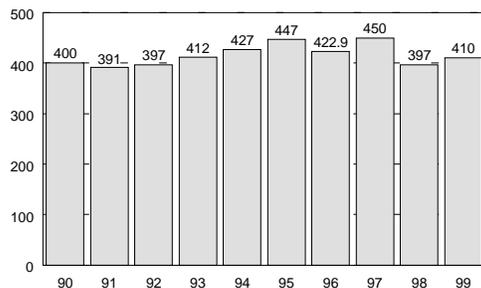


While there were inadequate resources to maintain all trails to standard, 32 miles of existing trail were reconstructed, and 5 miles of new trail was constructed. Portions of the Ozark Trail were maintained through a partnership with AmeriCorps, and assistance from other volunteers. Over 500 miles of trail were maintained on the forest in FY99. Trail condition and location information was collected on almost half of the 740 miles of trails on the Mark Twain.

User fees from the ATV/Motorcycle demo project paid for \$30,000 of trail maintenance and trail bridge materials, and \$15,000 on inventory, planning and other operational expenses. Remaining funds were available for trail and campground maintenance and improvements.

### WILDLIFE USE

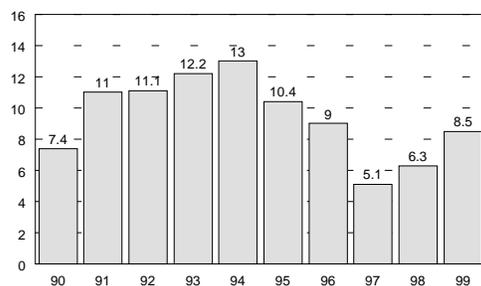
WFUD (2)



Mark Twain National Forest works to protect and improve habitat for the hundreds of plant and animal species that make the forest their home. The Mark Twain and Missouri Department of Conservation (MDC) work together to manage wildlife on national forest lands. Forest Service wildlife biologists design projects that provide improved habitat for wildlife and fish, while MDC is responsible for managing most resident fish and wildlife populations. In the past year, both consumptive (hunting and fishing) and non-consumptive (bird watching and photography) wildlife use has remained constant.

### WILDLIFE IMPROVEMENTS

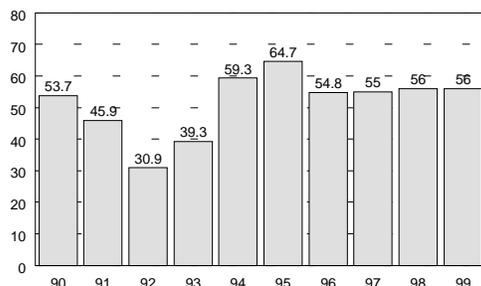
1,000 ACRES



The number of acres of wildlife habit improvements has increased over the last two years to 8,500 acres. Mark Twain National Forest works with Fish and Wildlife Service and MDC to ensure that management activities on national forest lands provide a variety of habitats for native and desired nonnative plant and animal communities. Habitats are enhanced through ecosystem restoration using prescribed fire, intermediate planting and stream revegetations. Much of this work is accomplished through partnerships that provide funding and volunteer work.

### WILDERNESS

1,000 RVDs



With 116 miles of trail in the seven Wilderness areas of Mark Twain National Forest, use remains stable with 56,000 RVD's for FY 99. Uses associated with hunting and wildlife study are not included in this figure. Wilderness areas are open to non-motorized recreation such as hiking and horseback riding. Exit surveys indicate that the majority of users are not necessarily seeking a "Wilderness experience," but rather an interesting place to hike.

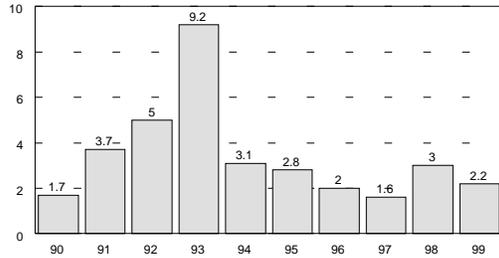
(1) A Recreation Visitor Day equals 12 hours of recreation use.

(2) A Wildlife and Fish User Day equals 12 hours of use.

**RANGE, SOIL AND WATERSHED MANAGEMENT-** Accomplishments in these programs remain consistent with previous years, with the goals of improving watersheds and protecting water quality. Working with U.S. Geological Survey and Natural Resources Conservation Service, the Forest Service continues to monitor water quality and survey and monitor soils. The Forest continues to convert non-native improved pastures to native grasses and protect riparian areas. Fifty acres of soil and watershed improvements were accomplished in FY99.

**LAND ADJUSTMENTS**

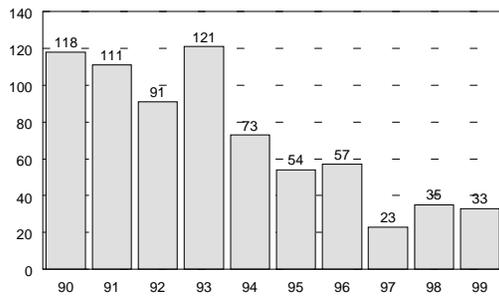
1000 ACRES



National forests in the western states were created from public domain lands owned by the Federal government. National forests in the eastern states were created from private lands purchased by the federal government to make national forests such as Mark Twain National Forest. This program of purchasing and exchanging land started in the 1930's and continues today. Most land purchases and exchanges are done to consolidate ownership. This reduces the amount of boundary line and trespass, while improving management of resources. In FY 99, 921 acres were exchanged for 1,270 acres and 1,888 acres were purchased with Land and Water Conservation Funds. The net gain in national forest lands was 2,237 acres.

**PROPERTY BOUNDARY SURVEY**

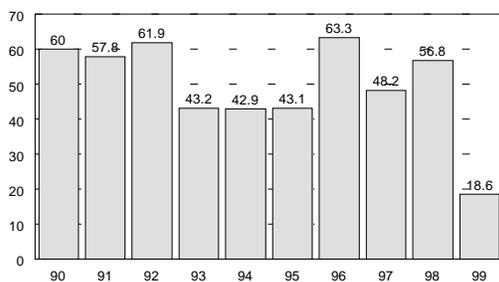
MILES



Of the three million acres within the national forest boundary, only about half is in federal ownership. With all the private ownership within the Forest boundary, there is estimated to be over 7,300 miles of national forest boundary. In FY 99, thirty-three miles of national forest boundary was surveyed, bringing the total miles of boundary surveyed to 1,904. Besides establishing national forest ownership, surveys define the boundaries of Wilderness, recreation and natural areas, and road and utility right-of-ways.

**ROADS DEVELOPMENT**

MILES



Forest roads allow users access to the natural resources of the forest. Roads provide access to campgrounds, river accesses, and hiking trails. Roads also provide access to the forest for fire protection. In FY 99 the Forest Service completed 18.6 miles of road reconstruction. Road reconstruction brings a road back up to it's original standard, providing better service to forest users and protecting environmental quality.

**Wildland Fire Management** - In FY99, there were 245 wildfires on Mark Twain National Forest, which burned 6,197 acres. This was an increase over the previous year. Ninety-nine percent of the wildfires were human-caused, 72% classified as arson. Arson continues to be the main cause of fires, with landowner burning "escapes" coming in second. The Ozarks, like much of the country, had below average rainfall. This year Mark Twain National Forest personnel, fire crews and equipment were dispatched to Michigan, Florida, Texas, and California to assist on wildfire and other incidents.

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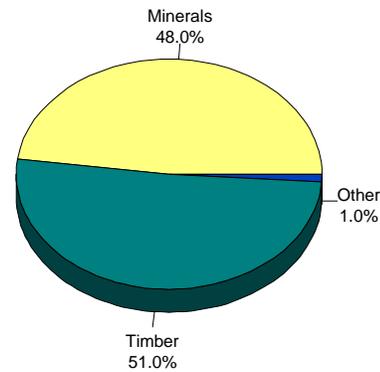
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# Forest Finances

## EXPENDITURES

PROGRAM	DOLLARS
Minerals	349,602
Range	365,204
Land Use	281,818
Wildlife/Fish	548,399
Timber	2,590,253
Soil/Water	199,769
Property Survey	354,730
Fire	1,325,390
Recreation Operations and Maintenance	1,147,018
Road Construction and Reconstruction	741,980
Road/Trail Maintenance	539,968
Facility Operation Maintenance	300,925
Senior Citizen Service Employment Program	947,584
Cooperative Law/Drug Enforcement	83,299
Land And Water Conservation Fund	155,383
Highway Transportation Administration	9,051
Ecosystem Management	749,130
Administration	1,206,927
Additional Miscellaneous Programs	2,629,543
<b>TOTAL</b>	<b>14,526,000</b>

## INCOME



PROGRAM	DOLLARS
Minerals	4,405,516
Range	13,695
Land/Uses	30,443
Timber	4,664,685
Recreation	26,589
Power	13,993
<b>TOTAL</b>	<b>9,154,921</b>

Each year National Forests return 25% of all revenues to the states where National Forests are located. This money is distributed to the counties prorated on the number of national forest acres in the county, and are to be used for the benefit of public schools and county roads. Counties with national forest lands also receive Payment in Lieu of Taxes (PILT). PILT funds are not limited to schools and roads. In FY 99, counties in Missouri with national forest lands received an average of \$2.25 per acre of national forest land

COUNTY	NET NF ACRES	FY 99 25% PAYMENTS	FY99 PILT PAYMENTS	FY 99 MINERALS PAYMENTS	TOTAL PAYMENTS TO COUNTIES
Barry	54,852	44,597	39,700	40,443	124,740
Bollinger	1,646	1,338	972	1,167	3,477
Boone	3,762	3,059	2,232	2,773	8,064
Butler	48,355	39,314	26,358	35,591	101,263
Callaway	12,168	9,893	7,213	8,967	26,073
Carter	90,846	73,861	59,169	66,962	199,992
Christian	52,077	42,341	30,439	38,157	110,937
Crawford	50,134	40,761	29,231	36,765	106,757
Dent	72,412	58,874	43,535	53,297	155,706
Douglas	40,910	33,261	23,890	30,184	87,335
Howell	49,274	40,062	28,674	36,316	105,052
Iron	95,124	77,339	54,956	69,785	202,080
Leclede	29,392	23,897	16,792	21,662	62,351
Madison	51,248	41,667	29,843	37,321	108,831
Oregon	105,607	85,863	61,549	77,832	225,244
Ozark	38,512	31,312	37,044	28,383	96,739
Phelps	65,352	53,134	36,298	47,808	137,240
Pulaski	48,189	39,180	27,153	35,280	101,613
Reynolds	89,928	73,115	65,666	66,191	204,972
Ripley	97,124	78,966	56,515	71,359	206,840
St. Francois	673	547	457	599	1,603
Ste. Genevieve	10,254	8,337	5,910	7,557	21,804
Shannon	82,929	67,424	74,285	61,383	203,092
Stone	10,167	8,266	37,183	11,347	56,796
Taney	65,300	53,091	54,418	47,401	154,910
Texas	48,890	39,749	27,600	35,971	103,320
Washington	82,299	66,912	47,984	60,658	175,554
Wayne	88,332	71,817	83,060	64,944	219,821
Wright	7,159	5,821	4,171	5,276	15,268
<b>Total</b>	<b>1,492,915</b>	<b>\$1,213,798</b>	<b>\$1,012,297</b>	<b>\$1,101,379</b>	<b>\$3,327,474</b>