



FISCAL YEAR 2007
ANNUAL REPORT

ANNUAL REPORT OF THE ARKANSAS FORESTRY COMMISSION

FISCAL YEAR 2007

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ARKANSAS FORESTRY COMMISSION

MISSION STATEMENT

In cooperation with the University of Arkansas system, the U.S. Department of Agriculture, and Arkansas landowners, the Arkansas Forestry Commission will protect and develop the forest resources of Arkansas by preventing and suppressing wildfires, monitoring and promoting forest health, encouraging reforestation and forest resource stewardship, and gathering and disseminating forest resource information.

ADMINISTRATION

The administrative office of the Arkansas Forestry Commission (AFC) provides support services for the day to day operation of the agency. These services include Personnel Management, Fiscal Management, Poison Springs State Forest, and Conservation Education.

PERSONNEL MANAGEMENT

PERSONNEL MANAGEMENT

The Arkansas General Assembly authorized 329 regular positions for Fiscal Year 2007, with an average of 317 positions filled. Personnel staff assist AFC employees with the many tasks required to facilitate a productive work environment. The personnel department is responsible for employment procedures, recruitment, employee benefits, time data entry, payroll processing, workers compensation claims, training and safety.

Employee safety is emphasized through a variety of ways. Supervisors include safety topics on every staff meeting agenda, in addition to routine tailgate sessions and local AFC unit safety meetings. Inspections of personal protective equipment (PPE) worn by AFC wildland firefighters are conducted in conjunction with firefighting equipment inspections.

The AFC also works with the Arkansas Department of Labor to ensure all buildings and their contents meet building and shop safety requirements.

TRAINING

The personnel office coordinates all training for employees by tracking all training, maintaining training records and ensuring all employees are aware of required training.

New employees receive a letter welcoming them to the AFC from the Personnel Manager that includes a list of all required training, whom to contact regarding training and where to send copies of certificates for completed courses.

In 2007, 44 employees participated in seven required training courses provided by the DFA Interagency Training Program.

In order to comply with directives of the Department of Homeland Security, the following classes have been adopted as required employee training:

All Field Employees

- IS-700 National Incident Management System (NIMS)
- ICS-100 Orientation to Incident Command (ICS)
- ICS-200 Introduction to Incident Command (ICS)

Foresters and Ranger IIIs

- IS-800 National Response Plan

TABLE 1: TRAINING CONDUCTED IN FY 2007

The following list of courses conducted reflects additional employee training completed:

Sept. 19-29, 2006 - Arkansas Prescribed Burn Prerequisite	April 16-20, 2007 - S-273 Single Engine Air Tanker Manager
Sept. 21, 2006- FR-101 Basic Orientation	April 23-24, 2007 - Pack Testing Physical Fitness Training
Sept. 25, 2006 - RX-300 AR Prescribed Burn Workshop	April 26-27, 2007 - Red Card Refresher Training
Oct. 3-5, 2006 - Urban and Community Forestry FO-126 Forest Management Plan Development, FO-125 Best Management Practice	April 30 - May 4, 2007 - M-410 Instructor Training
Oct. 3, 2006 - FR-101 Basic Orientation	May 8-9, 2007 - ATV Rider Safety Training
Oct. 3, 2006 - FR-105 Mobile Equipment, Maintenance and Safety	May 14-25, 2007 - 2007 Arkansas Wildfire Academy
Oct. 23-26, 2006 - FR-212 Surveying and Map Reading, FR-202 Insect and Disease Recognition, FR-213 Tree Identification, FR-217 GPS Field Mapping, FI-110 Fire Cause Determination	March-September 2007 - I-300 Intermediate ICS Training (various dates)
Nov. 29-30, 2006 - I-100, I-200 Train the Trainer	March-September 2007 - ArcView 9.2 Training (various dates)
Jan. 17, 2007 - FR-101 Basic Orientation	January-September 2007 - First Aid Training (various dates)
Feb. 12-16, 2007 - S-273 Strike Team Leader	June 30, 2007 - AFC Chainsaw Training (Garland County)
March 19 and 21, 2007 - Pack Testing Physical Fitness Training	July 11, 2007 - S-491 Advanced Fire Behavior-Atlanta
	Aug. 1,-2, 8-9, 14-16, 2007 - FR-312 Introduction to Urban Forestry

- ICS-300 Intermediate Incident Command
- #### Staff and District Foresters
- ICS-400 Advance Incident Command

New employees complete the required courses IS-700, IS-800, ICS-100, and ICS-200 online, usually in the first couple months of their employment. During the 2007 Federal Fiscal Year (September 2006 - October 2007), approximately 65 percent of all required AFC employees (105) completed the Homeland Security training, with the remaining employees scheduled to complete the training during the final quarter of 2007 and the first quarter of 2008.

In 2007, the AFC was once again cohost of the third annual Arkansas Wildland Fire Academy, conducted May 13-25 on the campus of Arkansas Tech University.

Three hundred and eighty five participants completed one or more of the 30 classes offered, completing more than 18,000 total classroom student hours during the two-week academy. AFC employees completed more than 4,300 training hours. In addition, 91 employees and cooperators from other agencies served as classroom instructors.

The Arkansas Wildland Fire Academy is a true interagency cooperative effort with students representing 34 agencies or work units representing 15 states.

Many of the students and instructors in the academy

provided assistance with fighting wildfires in Georgia and Florida, before and after the academy. Later in the summer, AFC employees and cooperators assisted fighting wildfires in New Mexico, Colorado, Idaho, Montana, Wyoming, California, Nevada and Oregon, serving in positions such as firefighters, crew bosses, dozer bosses, safety officers, information officers, base camp managers, radio operators, air operations branch director, dispatch recorder, strike team leaders, equipment managers, helibase managers, tanker base managers, mixmasters, emergency medical technicians and task force leaders.

The Arkansas Wildland Fire Academy was evaluated and deemed a success, and is scheduled to be held again May 15-26, 2008.

FISCAL MANAGEMENT

<i>Revenue Sources</i>	<i>Amount</i>
General revenue	\$7,150,621.00
Severance tax	\$3,819,052.86
Fire Protection tax	\$2,102,948.25
Federal reimbursement	\$3,198,899.99
Poison Springs State Forest	\$1,077,383.62
Baucum Nursery	\$1,318,292.45
M & R	\$5,451.02
Misc. & Beginning Fund Balance	\$753,817.43
Transfer to Trust Fund	(\$555,383.62)
Reclaim year end balance	(\$106,634.07)
Total	\$18,762,448.93

The fiscal office is responsible for accounting, building maintenance, funds management, inventory, and purchasing.

The AFC receives funding from two special revenue sources – timber severance tax and the forest fire protection tax. The timber severance tax is paid by the primary wood processor on a weight basis. Owners of forested land pay the forest fire protection tax at the same time they pay their

<i>Operating Expenditures</i>	<i>Amount</i>
Personnel & Salary benefits	\$12,864,868.53
Maintenance & Operations	\$3,766,960.64
Grants	\$1,075,028.73
Overtime	\$96,149.62
Travel	\$50,958.98
Professional contracts	\$453,399.98
Capitol	\$805,099.23
Data processing	\$4,000.00
Improvement tax	\$16,046.00
Uniform allowance	\$49,314.96
Marketing & Redistribution	\$5,451.02
Federal Incentive Program	\$162,640.18
Total	\$19,349,917.87

real estate tax to county government.

The revenue generated from these taxes accounted for approximately 31 percent of the AFC's total receipts. The net timber severance tax receipts in fiscal year 2007 were \$3,819,052.86. Tax receipts from the forest fire protection tax amounted to \$2,102,948.25.

OUTREACH

The Outreach Technician worked with partners to conduct non-traditional landowner outreach sessions at African American churches. Since these methods were adopted, landowner assistance to minorities has greatly improved.

The Rural Fire Protection Program worked with several minority volunteer fire departments during the past year providing equipment and interest-free loans.

Law Enforcement assisted 64 minorities with timber theft complaints, illegal dumping, and equipment vandalism.

To outreach to Hispanics, the Outreach Coordinator identified and contacted each League of United Latin American Council in Arkansas. Demographic maps showing the location and population of various minority groups were created.

CONSERVATION EDUCATION

The Conservation Education office supports other AFC programs by developing written materials for AFC personnel to use in promoting forestry and fire prevention, developing educational materials for use in Arkansas schools, and providing other assistance as needed.

During fiscal year 2007, the Conservation Education office again placed an emphasis on environmental education for

schools and landowner education. AFC foresters assisted the Arkansas Forestry Association (AFA) in conducting a series of landowner workshops.

The AFC worked with AFA and other agencies to present a week-long teacher conservation workshop at the University of Arkansas-Monticello, during which participating teachers study all aspects of the environment.

POISON SPRINGS STATE FOREST

FOREST MANAGEMENT

Poison Springs State Forest (PSSF) is a demonstration forest located in western Ouachita and eastern Nevada counties. PSSF provides the AFC with yearly revenue, while demonstrating various forest management techniques to private non-industrial landowners.

When the AFC purchased PSSF in 1957, the 19,942-acre forest had 20,240,000 board feet of pine and 10,303,000 board feet of hardwood.

A land transaction was completed in September 2007 adding 2,367 acres to PSSF. The AFC purchased this land, primarily through grant money, from the Nature Conservancy. Today PSSF is 19,839 acres with more than 85 million board feet of pine, and approximately 10.5 million board feet of hardwood.

The AFC has cut timber every year since 1957. Originally, the AFC used the timber sale proceeds to make annual payments to the federal government until the original land purchase was paid in full. Today timber sale proceeds pay operations and salary expenses, and provide the AFC revenue for general operating expenses. The AFC has never used general revenue to pay for or operate PSSF. Timber sale proceeds in excess of expenses and operations are placed into a trust fund for capital equipment purchases.

FOREST RESOURCE PROTECTION

The AFC is responsible for the protection of 18,790,000 acres of non-federal forest land in Arkansas. The forest protection office manages five program service areas to provide resource protection to the forested and rural areas of the state – fire protection, aviation, communications, law enforcement and rural fire protection.

FIRE PROTECTION

Foresters and Rangers in all nine districts are involved daily in one or more of the four key activities of fire protection – prevention, pre-suppression, detection, and suppression.

TABLE 4: TIMBER HARVESTED FROM POISON SPRINGS STATE FOREST IN FY 07

<i>Product</i>	<i>Volume</i>	<i>Value</i>
Pine Sawtimber	2,834 (mbf)	\$1,033,293.88
Hardwood Sawtimber	106 (mbf)	\$21,200.00
Misc. and Salvage		\$22,873.74
Non-timber income		\$115.00
Total		\$1,077,482.62

In Fiscal Year 2007, pine stumpage prices on PSSF were somewhat lower than the previous five-year average. There six bid sales, and timber sold in Fiscal Year 2007 amounted to \$1,077,367.62.

PUBLIC USE

Arkansans use PSSF for camping, hunting, hiking, horseback riding and sightseeing. The AFC requires a permit to camp on PSSF, and most permits are issued for the October and November deer seasons. More than 2,000 hunters and recreationists made reservations for PSSF's primitive campsites during the year.

TABLE 5: COMPARISON OF 2006 FIRES WITH THAT OF PAST 5 YEARS

<i>Year</i>	<i>No. of fires</i>	<i>Area Burned (Acres)</i>	<i>Avg. Size (Acres)</i>	<i>% of Protected Acres</i>
2001	1,374	14,681	10.7	0.0007
2002	1,199	14,351	11.9	0.0007
2003	1,620	23,279	14.3	0.0012
2004	1,356	22,145	16.33	0.0012
2005	2,216	34,396	15.52	0.0018
5 yr. avg.	1,553	21,770	14.04	
2006	2,461	47,172	19.16	.0025

During calendar year 2006, AFC firefighters suppressed 2,461 fires — well above the five-year average of 1,553. The average size fire for 2006 was 19.16, up from the 2005 average of 15.52. It is important to note that improvement in fire protection is often hard to measure, considering the many variables influencing yearly fire occurrence and fire behavior.

Arson is Arkansas’s leading cause of wildfires. During calendar year 2006, arson fires accounted for 35.9 percent of Arkansas’s wildfires, and 49.4 percent of the total acres burned.

Fire lane construction is a pre-suppression service provided to landowners for a fee. Upon receiving an application from a landowner, the AFC will build or maintain fire lanes for \$60 per hour. This is the total charge for a tractor plow, two men and transportation. During fiscal year 2007, the AFC conducted 192 fire lane construction projects – constructing 208 miles of fire lane, and completed 32 miles of fire lane maintenance.

The AFC has 98 firefighting units consisting of a dozer and transport truck. These dozers are used to cut a firebreak in order to stop any ongoing wildfire. During fiscal year 2007, the AFC was able to purchase one new transport truck, and one new John Deere 550 equipped with an environmental cab providing added protection for the operator.

The AFC has experienced a substantial loss of forest industry wildland fire suppression crews. In early 2000, there were approximately 70 initial attack frontline forest industry fire suppression crews and tractors available to respond to wildland fires. Currently, forest industry has approximately 14 fire suppression crews and tractors. These are not initial attack crews and tractors, but instead industry contractors or industry-owned equipment used in other forest management work. This is a tremendous loss of fire suppression resources in Arkansas.

AVIATION

Aviation supports each of the 9 AFC districts through aerial fire detection, timber damage surveys, insect and disease surveys. Aviation cooperates with other state and federal agencies. The AFC operates 15 aircraft statewide and employs 6 full-time pilots. Extra help pilots are used to supplement during periods of high fire danger. All AFC pilots hold at least a commercial certificate with an instrument rating.

The AFC’s fleet of aircraft consists of six state-owned and nine federally-owned fixed wing aircraft. Two Aero Commander twin engine aircraft are used for an air attack role, coordinating with air tanker suppression aircraft.

TABLE 6: FIRES AND ACRES BURNED BY CAUSE 2006

<i>Cause</i>	<i>No. of fires</i>	<i>% of Total</i>	<i>Acres Burned</i>	<i>% of Total</i>
Incendiary	884	35.9	23,312	49.4
Debris Burning	853	34.7	11,354	24.1
Smokers	29	1.2	267	0.6
Railroad	27	1.1	415	0.9
Campfire	24	1.0	183	0.4
Equipment Use	168	6.8	3,333	7.1
Children	40	1.6	298	0.6
Lightning	141	5.7	2,542	5.4
Miscellaneous	295	12	5,468	11.6
Total	2,461	100	47,172	100

Thirteen single engine aircraft are used for fire detection, surveys and other forestry related needs.

All AFC aircraft are maintained to FAA standards, and upgrades to avionics are done as technology advances. Logbooks, maintenance records, general condition, and appearance of all aircraft are thoroughly and routinely examined to maintain a high standard of safety.

During fiscal year 2007, the AFC aircraft flew 2,774 hours detecting fires, insects, and for other forestry related purposes.

COMMUNICATIONS UNIT

The AFC operates 46 communications towers and 12 base stations in order to dispatch fire crews. A project to convert wideband technology to narrowband has been completed statewide.

The AFC operates 9 AWIN base stations installed in district offices, and two additional units located in the 24 hour AFC dispatch center. Mobile AWIN radios have been installed in vehicles for law enforcement officers, District Foresters, and County Foresters, and grant money is being used to purchase AWIN radios for each County Ranger’s vehicles. The AFC hopes to have all County Ranger vehicles equipped with AWIN radios by fiscal year 2009.

The AFC dispatch center provides 24/7 point of contact for the public, AFC firefighters, volunteer firefighter operations and federal agencies. Two statewide telephone WATTS lines are in place for reporting wildfires and prescribed burns. The dispatch center provides full-time dispatch for AFC districts 4, 5 and 6, and dispatches for all districts during nights, weekends and holidays.

The AFC is in the process of upgrading the Computer-Aided Dispatch (CAD) system to ArcView 9. This system allows better coordination of firefighting efforts through a better understanding of land ownership, better coordination of resources, and faster translation of latitude and longitude to legal descriptions for dispatching purposes.

The AFC Fire Weather Supervisor records and maintains information on prescribed burns to meet the new volunteer smoke management guidelines, and provides forecasts regarding fire weather to provide personnel the latest weather information to manage a prescribed burn or wildfire.

RURAL FIRE PROTECTION

The Rural Fire Protection program continues to grow in popularity with fire departments in Arkansas. Services were provided to every county in Arkansas over the past year, and requests for assistance continue to increase. Requests for assistance often far exceed the supply of equipment.

The following is a list of accomplishments for fiscal year 2007:

Firefighter Act Program

- Received 218 vehicles at a total acquisition cost of \$9,404,335.00;
- Placed 197 vehicles in communities for the purpose of building their own fire trucks;
- Placed 4 vehicles for AFC use;
- Fabricated and placed five 2,000 gallon tankers in communities for water supply; and
- Repaired, retrofitted and financed 12 vehicles for brush fire use.

Federal Excess Property Program

- Six vehicles and three fire boats were acquired through the FEPP program, at a total acquisition cost of \$427,547.00 (\$167,885.00 for the vehicles, and \$259,662.00 for the boats);
- Five vehicles were placed in communities for the purpose of building their own fire trucks; and
- One vehicle was placed in an AFC district for use by personnel;
- Sixty-three federal excess vehicles were disposed of through GSA donations to state agencies for the Federal Excess Property Program; and
- Sixteen federal excess vehicles were given to other states.

Rural Fire Protection Loan Program

- Fourteen municipal-type fire trucks were financed for communities preferring this type of apparatus.
- Thirty five loans totaling \$328,824.77 were provided to communities for the purchase of firefighting apparatus and equipment;

- The year-end loan balance on June 30, 2007 was \$568,112.42 (this represents the amount of money owed the Arkansas Forestry Commission from communities on the 2- and 3-year interest free loans); and
- Cash sales to volunteer fire departments for equipment totaled \$260,276.33.

During fiscal year 2007, the Rural Fire Protection Program helped organize four new fire departments, received 1,276 requests for assistance, and presented 35 programs regarding the program.

On July 1, 2007, Rural Fire Protection had \$22,328.17 worth of new equipment on hand, and \$13,320.00 in painted trucks for purchase by volunteer fire departments. This totals \$35,648.17 in inventory on hand as of June 30, 2007.

Wildland Fire Suppression Training

The last four-hour course was taught May 11, 2006. Fifty three 8 hour Wildland Fire Suppression classes were presented to 487 fire departments, with 1,444 students certified. Forty three ICS/I-100 courses were presented to 407 fire departments, with 1,173 students certified.

Volunteer Fire Assistance Grants

Through 50/50 matching grants, 205 communities were assisted at a program total of \$216,420.00.

LAW ENFORCEMENT

Arkansas Code Annotated 20-22-301 gives the AFC authority to enforce the State's laws pertaining to unlawful dumping, timber theft, forest fires, and logging equipment theft and vandalism. Unlawful dumping, timber theft, forest fires, and logging equipment theft and vandalism have long been problems for Arkansas's forest landowners and loggers. The AFC has aggressively sought prosecution of violators to deter such crimes.

The AFC has four Forest Investigators and 13 District Law Enforcement Officers. The District Law Enforcement Officers are Rangers and Foresters that are required to handle their regular assigned duties, as well as provide law enforcement.

Foresters and Rangers with law enforcement responsibility are required to take 16 hours of law enforcement training each year, and the District Law Enforcement Officers and Investigators are required to attend 40 hours of training.

The AFC worked 109 dumping cases, 92 timber theft cases, 104 fire cases, and two equipment vandalism cases. In addition, they worked several internal and theft of AFC property cases for a total of 307 cases in fiscal year 2007.

ARKANSAS FIREWISE

Arkansas FireWise is a wildfire mitigation program. FireWise staff work with fire departments and community leaders to teach fire safety in the wildland/urban interface. Participating communities are eligible for grants to be used for the purchase of equipment for fuel reduction projects, such as chainsaws, pole pruners, etc. In 2007, Arkansas FireWise

issued \$51,000 in grants to purchase mitigation equipment.

Arkansas currently leads the nation with 52 nationally recognized FireWise Communities/USA. In 2007, Arkansas FireWise recognized 12 new Firewise Communities/USA, five fifth-year communities and two Arkansas State Parks. Arkansas FireWise also conducted wildfire risk assessment training for 33 fire departments.

FOREST RESOURCE MANAGEMENT

Non-industrial private forest landowners (NIPFL) own 59 percent or 10.8 million acres of Arkansas's timberland. The AFC works with these landowners to encourage sound forest management practices on their timberland, ensuring the sustainability of Arkansas forests for future generations. The AFC also works with forest industries, universities, private forest consultants, and other government natural resource agencies to manage and sustain Arkansas forests.

Sound forest management practices enhance economic recreational, wildlife, soil and water conservation, and aesthetic values.

The AFC is involved in a tree breeding and testing program to improve the genetic quality of pine, Cherrybark oak, and Nuttall oak. The improved trees are better quality, and provide quicker economic returns to landowners. The AFC's Baucum Nursery provides seedlings for afforestation, reforestation, and for special school or urban tree planting projects.

The AFC administers the Forest Stewardship Program, and is involved with several other programs that promote and provide cost-share incentives to NIPFL for tree planting. The AFC also provides technical assistance and grants to Arkansas communities for urban planning and tree planting projects.

The AFC works with NIPFL, industry, and government landowners to promote the use of best management practices (BMPs) to reduce soil erosion and maintain water quality. The AFC also continually monitors the economic and aesthetic losses caused by forest insects and diseases, and informs forest and urban landowners how to control these pests.

The Forest Inventory and Analysis (FIA) program for the AFC collects data which provides information about forest growth, damage, mortality, health and land use trends.

FOREST MANAGEMENT ASSISTANCE

During fiscal year 2007 AFC County Forests and Ranger accomplished the following:

- Provided 4,654 landowner assists on 94,466 acres;
- Prepared or revised 1,642 forest management plans

covering 122,018 acres;

- Selectively marked for harvesting 217 acres of timberland for 11 landowners;
- Provided planting inspections for 654 landowners that planted pine and hardwood seedlings on 28,893 acres;
- Performed seedling survival checks for 603 landowners covering 29,770 acres;
- Conducted prescribed burns on 17,904 acres for site preparation, fuel hazard reduction, or wildlife habitat enhancement purposes for 323 landowners;
- Referred 324 landowners to forest consultants and vendors on 31,799 acres;
- Provided 4 assists to forest landowner associations and related organizations;
- Conducted 49 forestry field demonstrations for landowners;
- Erected exhibits at 102 county fairs and festivals;
- Inspected or re-inspected 244 landowner properties enrolled in the Tree Farm System covering 32,635 acres.

CONSERVATIONS RESERVE PROGRAM

The Conservation Reserve Program (CRP) began in March 1986 and was designed to retire erodible cropland for agricultural production and to conserve soil. For the program years of 1986 to 2006, more than 175,000 acres of erodible agricultural land was planted.

The AFC prepared or revised approximately 177 management plans on CP3 (pine planting) and CP3A (hardwood planting) practices that provided forest management recommendations for regular CRP on 9,701 acres. During fiscal year 2007, there were 7 farms comprising 447 acres that were planted in pine trees and 100 farms comprising 5,859 acres planted in hardwood trees.

Continuous sign-up practice accomplishments of CRP consisting of CP11-Vegetative Cover for Established Trees, CP22-Riparian Buffer, CP23-Wetland Restoration, and CP31-Bottomland Timber Establishment on Wetlands were popular with Arkansas landowners in fiscal year 2007.

Unlike the regular CRP, landowners can make applications

for eligible cropland or pastureland at any time during the year. In addition to the regular CRP accomplishments, AFC wrote or revised management plans for 418 landowners that resulted in the planting of 310 acres of pine seedlings and 10,800 acres of hardwood seedlings in continuous sign-up practices.

FOREST STEWARDSHIP PROGRAM

Through the Forest Stewardship Program, non-industrial private forest landowners interested in managing their property for wildlife, recreation, soil and water conservation, agro-forestry or for timber purposes can receive a Forest Stewardship Plan listing recommendations from natural resource professionals. These recommendations when carried out will not only enhance the multiple resources on their property in their lifetime, but also benefit future generations.

In fiscal year 2007, 239 Stewardship Plans were written comprising 40,189 acres. Approximately 3,400 landowners have obtained Forest Stewardship Plans since the inception of the Forest Stewardship Program in 1991. These landowner properties make up approximately 600,000 acres of non-industrial private forestland in Arkansas.

When a landowner has obtained a Forest Stewardship Plan for their property, and has made sufficient progress toward implementing the plan's recommendations, then he/she can be certified as a Forest Steward. Upon certification, the landowner receives a Forest Stewardship sign to be displayed on the property, recognizing their use of good stewardship principles. A total of 180 landowners were certified as Forest Stewards in fiscal year 2007 comprising 40,830 acres. To date, Arkansas has approximately 450 Forest Stewards owning approximately 120,000 acres. Forty eight re-inspections of previous Forest Steward certified landowners conducted on 14,733 acres to determine if their property was being maintained under the Forest Stewardship Program guidelines.

Training sessions were conducted for AFC County Foresters and Consulting Foresters desiring to write recommendations for stewardship plans for eligible landowners. Thirty seven AFC personnel and four Consultant Foresters received stewardship program training in fiscal year 2007.

FOREST LAND ENHANCEMENT PROGRAM

The Forest Landowner Enhancement Program (FLEP) was created by the 2002 Farm Bill, and provides technical and cost-share assistance to private non-industrial landowners to conduct eligible conservation practices under FLEP guidelines. The AFC received \$441,000 to distribute

to NIPFL applicants for cost share practices under FLEP from fiscal year 2005 through fiscal year 2007.

The goals of the program are to enhance and sustain long-term productivity of timber and non-timber resources through a variety of forest management practices. Under the program, the following conservation practices are eligible for cost share reimbursement: afforestation, reforestation, improvement of poorly stocked forest stands, agro-forestry, forest health, practices to improve seedling growth or survival, and habitat improvement for game and non-game wildlife species. Best Management Practices during timber harvesting to reduce erosion and protect water quality are also eligible.

A total of 31 landowners had management plans prepared or revised on 1,208 acres. Tree planting was completed by 38 landowners on 1,070 acres, one landowner completed timber stand improvement practices on 20 acres, 10 landowners completed wildlife enhancement practices on 250 acres, and 5 landowners completed forest health improvement practices on 310 acres. These practices were checked for program compliance by AFC personnel.

ENVIRONMENTAL QUALITY INCENTIVES PROGRAM

The Environmental Quality Incentives Program (EQIP) was reauthorized in the Farm Security and Rural Investment Act of 2002 (Farm Bill) to provide a voluntary conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants with installation or implementation of structural and management practices on eligible agricultural land.

EQIP addresses private, non-industrial forest landowner's natural resource concerns. A portion of the state allocated EQIP funds were dedicated to forestry practices. EQIP addresses forest protection, forest health, and forest water quality. Forest practices include firebreaks, prescribed burning, fencing, forest stand improvement, invasive species control, tree planting for forest diversity, tree planting for recovery from natural disasters, water bars, stream crossing structures, culverts, seeding and stream bank stabilization.

EQIP offers contracts to provide incentive payments and cost-shares to implement conservation practices. EQIP activities are carried out according to an environmental quality incentives program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice, or practices, to address the resource concerns. The practices are subject to NRCS technical standards adapted for local conditions.

In fiscal year 2007, 964 landowner assists were conducted on 36,520 acres. AFC prepared or revised 162 management plans on some 10,269 acres for NIPF landowners to implement EQIP eligible practices. Planting inspections were accomplished on 117 landowner properties comprising 3,740 acres. Survival checks were conducted for 101 landowners on 2,988 acres. Prescribed burns were performed on 58 tracts that totaled to 3,734 acres. Thirty nine firebreaks were constructed for landowners that totaled to more than 47 miles. One fire lane of .5 miles was maintained.

WILDLIFE HABITAT INCENTIVES

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program for landowners who want to develop and improve wildlife habitat primarily on private land. The Farm Security and Rural Investment Act of 2002 reauthorized WHIP as a voluntary approach to improving wildlife habitat. Program administration of WHIP is provided under the Natural Resources Conservation Service (NRCS). By targeting wildlife habitat projects on all lands and aquatic areas, WHIP provides cost share assistance to conservation minded landowners who are unable to meet the specific eligibility requirements of other USDA conservation programs.

AFC provided 16 management plans on some 1,033 acres to NIPF landowners to accomplish WHIP eligible practices. Twenty nine prescribed burns were conducted for landowners on some 1,816 acres by AFC personnel. In all, a total of 87 landowners were assisted on 5,157 acres.

WETLAND RESERVE PROGRAM

The Wetland Reserve Program (WRP) provides landowners cost-share funds and/or land payments to restore wetlands. Wetlands converted to cropland prior to December 23, 1985, are eligible for WRP. The WRP is administered by the NRCS office. The AFC assisted NRCS in the checking of 19 tracts of property for seedling survival rates on some 7,671 acres. Planting inspections were conducted on 3 tracts consisting of 1,291 acres. Hardwood seedlings were planted on 3 tracts with 1,469 acres.

RESOURCE CONSERVATION AND DEVELOPMENT

Forestry has played an important role in RC&D in Arkansas. Many Arkansas landowners have participated in forestry programs in the past. Funding Arkansas landowners receive encourages private forest landowners in sound forest management techniques and conservation practices of their natural resources.

Limited resource landowners have rarely participated in forestry programs offered to NIPFLOs. To help encourage

more participation by this segment, the AFC conducted landowner workshops targeted to limited resource landowners. In fiscal year 2007, eight Limited Resource/Minority and landowner meetings have been held with a total attendance of 538. Landowners were encouraged to manage their property, seek professional advice, and take advantage of available cost share programs. Recent research, cost share programs, and various management topics were presented to landowners with field trips.

URBAN AND COMMUNITY FORESTRY

The Urban and Community Forestry program is designed to assist communities, non-profit organizations and educational institutions with the necessary tools, information and technology to promote forest stewardship in their communities. Engaging these groups helps build capacity of the program and encourages urban forestry at the local level. To meet the growing demand for technical assistance, the AFC provides assistance through urban forestry representatives from the nine Districts. These representatives work closely with the staff urban foresters and their communities, schools and various organizations to increase public awareness of the value of community trees. Technical assistance and educational services help improve standards for urban forestry management and involve tree protection for water quality and wildlife habitat, greener neighborhoods, and proper tree planting and care by municipal employees, contractors and volunteers.

The Urban and Community Forestry program provides funding from the USDA Forest Service through grants to communities for projects and programs that promote sustainable community forestry. Forty communities, educational institutions and organizations received grants totaling \$151,435. Some of the more recent projects to be implemented:

- The Illinois River Watershed Partnership, Beaver Water District and the Washington County Cooperative Extension Service planted rain-garden demonstration models at area schools, parks and the Seven Hills Homeless shelter to help reduce and filter run-off from buildings and parking lots;
- The Community Action Program of Central Arkansas worked with low-income families to strategically plant trees to help cool their homes while reducing energy consumption;
- The Fayetteville Natural Heritage Association partnered with the Nature Conservancy to set up a mapping system to help identify green space in and around the City of Fayetteville that will provide multiple benefits such as water quality and recreational opportunities;
- Seven schools benefited from the Shade Trees on

Playgrounds program by receiving five shade trees for their sunny playgrounds and for use to meet the curriculum on the benefits of trees;

- AFC continues to partner with the Arkansas Urban Forestry Council (AUFC), a non-profit organization, which assists with program delivery and expands outreach at the local level. The Council has over 125 members statewide and works with communities to promote tree care. The AUFC held four regional workshops around the state covering Tree City USA, tree management programs and proper tree care with over 160 people attending;
- The AUFC's Arkansas Releaf Project event was held at the Cherry Hill Volunteer Fire Department along with AFC, Perry County 4-H clubs and the Perry County Cooperative Extension Service. The AUFC gave a tree planting demonstration and seedlings were given to the citizens in the community to help replace trees lost from a tornado that severely damaged the community.

Urban and Community Forestry highlights for fiscal year 2007:

- 223 technical assist were provided to communities for projects such as tree planting and pruning, organizing a tree or beautification committee, discussing tree management in parks, tree inventories, workshops and organizing Arbor Day ceremonies;
- 328 assists to homeowners for proper tree care;
- Over 32,700 volunteer hours were donated for tree programs and projects across the state;
- Arkansas had the nation's highest new Tree Cities for the second year in a row, and now 45 communities are proudly displaying Tree City USA entrance signs.

FOREST INVENTORY

The Forest Inventory and Analysis (FIA) program in Arkansas continues to collect research data from permanent plots located throughout the state. There are 5,734 plots in the state, with each being revisited every five years. The data gathered from these plots provide information about forest growth, damage, mortality, health, and land use trends.

The Arkansas FIA program consists of eight Forest Inventory Specialists and one Forest Inventory Coordinator. Normally, three to five hours are needed for an Inventory Specialist and an assistant to complete data collection of any given plot. The specialists are assisted either by another specialist, a District Ranger or extra help. A Quality Assurance/Quality Control USDA Forest Service employee

checks eight percent of all plots to insure data accuracy. A specialist must maintain an 87 percent average or above on these checks.

During fiscal year 2006, the inventory crew completed the second re-measure panel of the new cycle (2005 – 2010). During the work year, the FIA crew gathered data from 1,417 plots. The Quality Assurance/Quality Control grading average for the Arkansas FIA program is 97 percent.

Plans for the future are to maintain an 87 percent or above grading average, and to collect 20 percent of all plots annually, completing the entire state every five years.

TREE IMPROVEMENT

The AFC, in association with the Western Gulf Forest Tree Improvement Program, continues to improve the genetic quality of plant material available for reforestation in the Western Gulf region. The AFC sells pine seedlings produced from seed with the highest possible genetic gain. Only the best clones in AFC's loblolly and short leaf pine seed orchards are being harvested.

Tree Improvement accomplishments for fiscal year 2007 are divided into two categories: Cone and Seed Collection and Breeding Program Advancement.

Cone and Seed Collection

The AFC harvested 448 bushels of genetically improved loblolly cones, which produced 652.26 pounds of seed, or 1.46 pounds of seed per bushel. Average genetic gain of the 446 bushels is 35 percent. Therefore, the pine seedlings that Baucum Nursery will be lifting at the end of 2007 and beginning of 2008 will provide Arkansas landowners with an average genetic gain of 35 percent.

The third harvest of our new genetically improved shortleaf orchard yielded 68.5 bushels of cones and 86.86 pounds of seed or 1.27 pounds of seed per bushel.

The AFC is working with the USDA Forest Service to manage a twenty acre Cherrybark Oak seed orchard and a 13 acre Nuttall Oak seed orchard in the St. Francis National Forest.

Breeding Program Advancement

The future of the AFC tree improvement program is its breeding, testing and orchard establishment. The tree improvement staff has aggressively pursued their objectives and during fiscal year 2007 accomplished the following:

- Began grafting for our new 64 acre hardwood seed orchard at AFC's Baucum Nursery;

- Species that will be included in seed orchard areas are:
 - Improved Nuttall Oak;
 - Improved Willow Oak; and
 - Improved Water Oak, as well as demonstration/seed production areas of all other oak species produced at Baucum Nursery.
- Began grafting 710 positions on 14.67 acres for two improved loblolly pine seed orchards;
- Used 40 pollination bags to control pollinate 257 flowers. The AFC uses a mix of average pollen from Arkansas and Oklahoma to pollinate all second generation flowers;
- Established one Cherrybark oak progeny test, two polymix loblolly pine progeny tests and 23 loblolly pine block plots;
- Measured two 15-year-old; one 5-year old; and one 3-year-old loblolly pine tests for volume data;
- Measured one 10-year old nuttall oak test for volume data;
- Measured one 1-year old loblolly pine test for survival; and
- Measured a total of 11,104 trees from six tests.

REFORESTATION

Baucum Nursery sold and distributed 5,832,700 hardwood seedlings and 5,032,000 pine seedlings to Arkansas landowners during fiscal year 2007. Private landowners purchased all of the hardwood and most of the pine. Approximately 250,000 pine seedlings were purchased by forest industry.

The majority of pine and hardwood seedlings were planted under federal cost-share programs such as EQIP, CRP, WHIP, FLEP, Southern Pine Beetle Prevention and Restoration, Partners for Wildlife, and Conservation Technical Assistance programs.

The AFC distributed 12,000 pine seedlings and 16,200 hardwood seedlings to non-profit organizations such as schools, city and county governments and churches for Arbor Day, Earth Day, and for other information and education purposes.

Nursery employees completed all necessary cultural practices to insure top quality seedlings. Fertilizers were applied per soil test results. Soil fumigation was conducted and herbicides were applied to prevent and control weeds, diseases, and insects. Approximately 100 tons of soil amendments, plus cover crops on layout fields, were used to maintain soil productivity.

FOREST LEGACY

Two Forest Legacy project proposals were submitted for the fiscal year 2008 grant request cycle, and one project was submitted for the fiscal year 2009 grant request cycle.

The Arkansas Forest Legacy Coordinator served as a member of the Forest Legacy National Review Panel held January 2007 in Washington, D.C, and aided in the ranking of projects for recommendation in the President's budget

Upon recommendation of the State Forest Stewardship Coordinating Committee, a new Forest Legacy Area was added to the Arkansas Assessment of Need (AON). The Buffalo River Forest Legacy Area encompasses 2,940,161 acres and was approved as a major amendment to the AON by the Chief of the USDA Forest Service in August 2007. The USDA Forest Service approved a \$500,000 fiscal year 2007 grant for the Moro Big Pine Project, a 15,923 acres conservation easement in Calhoun County. The Arkansas Forest Legacy Coordinator prepared grant documentation and secured the grant funds. In addition, the authorization to spend the funds locally was obtained from the Arkansas legislature.

WATER QUALITY MANAGEMENT

The AFC is the designated management agency for the Silvicultural (Forestry) Section of the Arkansas Water Quality Plan. Present AFC responsibilities for the plan involve six major areas of concern:

- BMP training and education for landowners, loggers, and foresters;
- Biennial monitoring of BMP implementation on silvicultural sites throughout the state;
- Resolution of timber harvesting/water quality complaints;
- Cooperation, coordination, and participation with other state and federal agencies concerning water quality in silviculture;
- Participation in the Environmental Protection Agency's non point source pollution 319 Grant program; and
- Effectiveness monitoring.

The AFC has a full-time BMP Coordinator and BMP Specialist dedicated to the program. Implementation of voluntary forestry BMPs is the primary means of protecting water quality during forest practices.

During fiscal year 2007 the following accomplishments were made:

BMP Training and Education of Landowners, Loggers, and Foresters

- Conducted BMP training sessions with private industry-Potlatch Corporation;
- A logger BMP training session was made at Domtar Industries in Ashdown;
- Trained Potlatch Corporation “Gatewood” Logger in Warren on two different occasions;
- Trained Potlatch Corporation “Gatewood” Loggers in Prescott;
- Trained Potlatch Corporation Contract Loggers Grenada, Mississippi;
- Performed AFC “in-house” BMP training at Training Academy held at Ferncliff;
- A combined forest landowner/logger training session at the Cossatot Forestry Field Day held in Wickes;
- Provided landowner training for Ozark Woodland Association in Melbourne;
- Provided BMP training for Resource Management in Sheridan;
- Provided AFC BMP booth and training sessions for landowners and Loggers at the Annual Logger Expo in Hot Spring; and
- Provided LEADAR training at Monticello;

Biennial Monitoring of Silvicultural BMP Implementation in Arkansas

- Aerial reconnaissance flights were made over the AFC’s District 1, 2, 3, 4, 5, 6, 7, 8, 9 for the 5th Statewide BMP Monitor locating 3,416 sites;
- Surveyed 257 of the sites by measuring, documenting and reporting the statewide extent of implementation of forestry BMPs with a overall state average of 88 percent;
- Evaluated the general effectiveness of the BMPs as applied operationally in the field; and
- Determined the need and direction of the forest BMP education and outreach programs.

Resolution of logging complaints

- Responded and resolved 10 statewide complaints.

Cooperation with Other Agencies and Groups

- Participated in two of ADEQ’s AR Watershed Advisory Group (AWAG) meetings;
- Participated in Non Point Source meetings with the AR Soil & Water Conservation Commission (ASWCC) and EPA;
- Participated in six meetings with the Arkansas Forestry Association’s “Forest Practices Group”;
- Attended and gave AFC BMP report at two Ouachita Timber Purchasers Meetings;
- Attended Cooperative Extension Service Forestry Meeting;
- Attended regulation hearings at ADEQ;
- Attended two Bayou Bartholomew watershed meetings at Pine Bluff;
- Participated in ADEQ and AFC joint meeting to discuss forestry Water Quality complaints;
- Participated in three meetings with Dr. Ron McNew of U of A to discuss statistics for BMP survey;
- Participated in the Four-State BMP Conference in Oklahoma; and
- Participated in the Southeast Water Resource Managers Conference in Kentucky.

Federal 319 Grants

- Submitted quarterly status reports to ASWCC 319 Grant.

BMP Effectiveness Monitoring

- The completed program’s objective is determining the effectiveness of implementing BMPs through biological assessment of macroinvertebrate populations in streams adjacent to forestry operations. At this time, the entire assessment report is on the AFC web site.



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