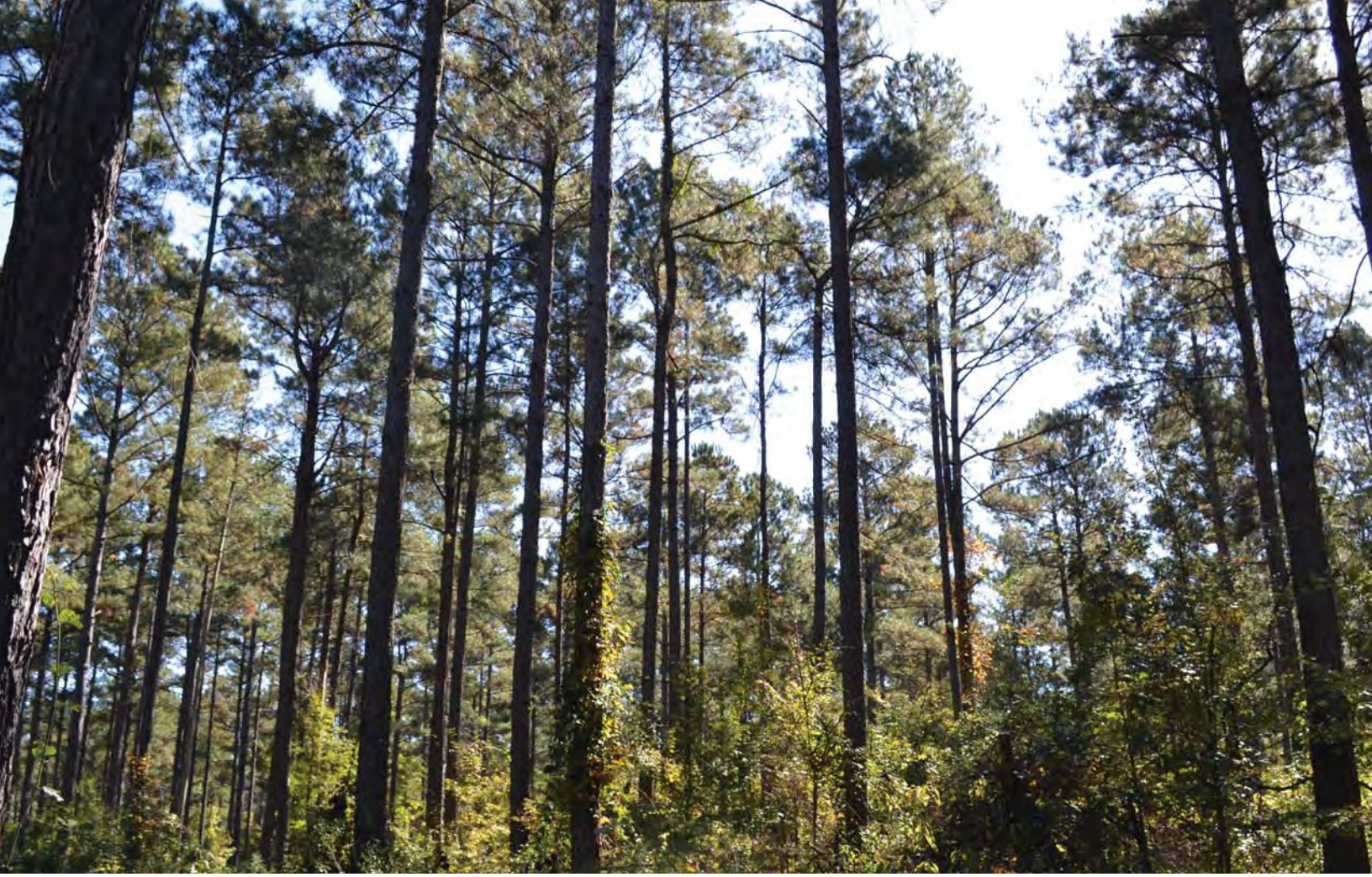

2014 Annual Report

Forest Protection. Tree Planting. Seedlings. FOREST CONSERVATION.
Wildfire Suppression. Urban Forestry Initiatives. Prescribed Burning. Research.
Training. Forest Management Plans. Poison Springs State Forest. Forestry Education.
BAUCUM NURSERY. State-of-the-art Communications. Fire Weather.
Rural Fire Protection. Champion Trees. Tree City, USA. Arkansas Firewise.
Stewardship Opportunities. Forestry Partners. Aerial Wildfire Detection.
Landowner Assistance. Invasive Forest Pests. Water Quality. Healthy Trees.
SERVING ARKANSANS AND ARKANSAS FORESTS.

Welcome from State Forester Joe Fox

Welcome to the Arkansas Forestry Commission's annual report for 2014. The AFC is an agency within the Arkansas Agriculture Department, which has served Arkansans for more than 80 years. 2014 was a good year of forest growth, equipping and training staff, and strengthening partnerships. And, it was the first year to implement the AFC Strategic Plan – developed to provide us with a shared vision and mission as we work with Arkansans and Arkansas forests.

Major 2014 accomplishments: Arkansas's forests passed the 19 million acre milestone in 2014. New dozers were purchased, providing newer equipment to crews and adding safety to Arkansas communities. New I-phones and advanced technology was employed to help our personnel better assist and communicate with landowners. Various training opportunities strengthened AFC's ability to deliver fire protection and management advice in the safest, most effective methods possible. Collaboration with many partners continued to grow in 2014 at a state, federal and national level.

2014 also brought tragedy to the Commission. On January 31, AFC Pilot Jacob Harrell died during a tragic plane crash in the Ouachita National Forest, while flying a wildfire detection flight. With large help from partners, and the dedication of AFC personnel across the state, a massive air and ground search effort was coordinated. I am extremely proud of AFC staff and our many awesome partners in the effort to find Jake. The search team consulted with many different agencies and organizations, and built relationships and mutual respect that will last for all of our lifetimes.

In 2014 the AFC increased its "reserve" in the State Forestry Trust to $1,537,747; which, included with our June 30 unrestricted cash, improved overall end of Fiscal Year cash to $4,460,621.

In 2014, the AFC completed several action steps – which represent high-priority goals – from our Strategic Plan. Some were: technology software, hardware and storage upgrades, three environmental cab replacement dozers, new ATV's and UTV's, renewing of the training coordinator position, and a full-color, eighth edition of *TREES OF ARKANSAS.*

The Commission was named the Arkansas Office of the Natural Resource Conservation Service's Partner of the Year. We are grateful to our partners that work with us to protect and promote Arkansas's forests.

In 2014 we continued an impressive story of dedication and service. And with that said, we will strive to improve in the years to come. Please enjoy our report to Governor Hutchinson and you, the citizens we serve.

Sincerely,

State Forester Joe Fox

Protecting, Developing, and Conserving Arkansas's Forests

ARKANSAS
FORESTRY
COMMISSION

WYNNE FIRE/RESCUE
TREE CITY USA
Arbor Day Foundation

BEAST

1997 TREE FARM
WOOD
WATER
CERTIFIED
TREE
FARM
RECREATION
WILDLIFE
WEAVER TREE FARM

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

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Please note: All accomplishments reported in these pages are from Calendar Year, 2014, except for the Human Resources and Fiscal Reports (within the Administration Report) - which are from Fiscal Year, 2014 (July, 2013- June, 2014).

Mission Statement

The mission of the Arkansas Forestry Commission is to protect Arkansas's forests, and those who enjoy them, from wildland fire and natural hazards, while promoting rural and urban forest health, stewardship, development and conservation for all generations of Arkansans.

Vision Statement

Arkansas's healthy rural and urban forests provide clean air and water, functioning ecosystems, and economic and social benefits. An agency of leaders in forest protection, emergency response, and forest management is committed to maintaining and enhancing these attributes.

2014 Board of Commissioners

Board Chair, Robert Parkes, D.D.S.
Vice Chair, James Carr, Ph.D.
Allen Bedell
Bobby Johnson
Jerry T. Davis
Allen Morgan
Mary Elizabeth Eldridge
Aubra Anthony
Frank Wilson

Spencer Fox Award:
Ray Wakefield

Career Achievement Award:
Clint Triplett

District Forester of the Year: Mike Cagle

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

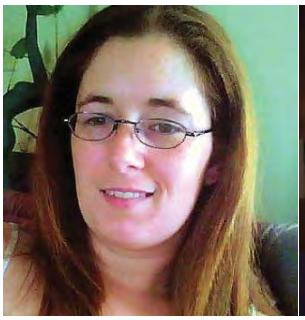
2014 District Employees of the Year

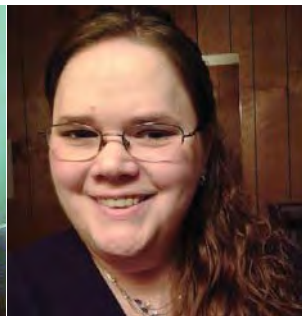
Each year, employees from districts and programs are nominated for excellence, and going above and beyond the call of duty in each respective job area. Those pictured here were among those honored in 2014, from across Arkansas.

Program Support Specialists of the Year
Ronnie Cox, Ronnie Garrett, and Matthew Voskamp

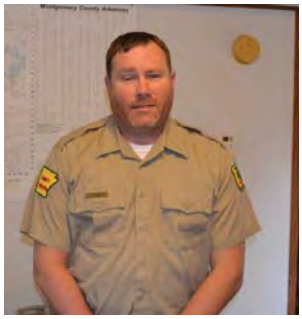
Randy Lane, Dist. 1

Program Manager of the Year, Adriane Barnes

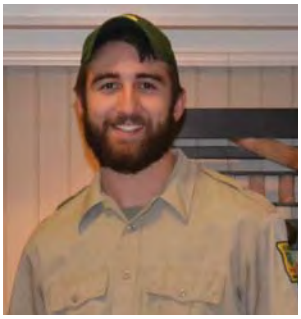




Administrative Support Specialists of the Year, Asia Demayo and Adriana Sagor



Eric Myers, Dist. 2



Mark Graveel, Dist. 3

Janie Garner, Dist. 4

Jason Smith, Dist. 5

James Jones, Dist. 6

Daniel Standley, Dist. 7

Randy Coy, Dist. 8

Rick Spurlock, Dist. 8

Forest Resource Protection

The Forest Protection Program protects rural communities and forest resources by providing wildland fire prevention, detection, suppression, enforcement, training, and equipment.

Fire Protection

The AFC is responsible for the protection of 15.85 million acres of non-federal forestland in Arkansas. Foresters and rangers in the eight districts are involved daily in one or more of the four key activities of fire protection: prevention, pre-suppression, detection, and suppression.

Improvement in fire protection is often hard to measure, considering the many variables that influence yearly fire occurrence and behavior. The standard measurement of fire protection is the total number of fires suppressed and total acreage burned.

In 2014, the Commission had a total of 104 firefighting units, each comprised of a bulldozer and transport truck. Bulldozers are used to create firebreaks that stop an ongoing fire. Of those units, 74 are equipped with environmental cabs that provide added protection for the operator.
* Utilizing federal grant funds, and AFC funds, one new JD 550K and two new JD 650K's were purchased in 2014.

Wildfires at a Glance 2009-2014

The total count of wildfires recorded across the state in 2014 was 1,240. The total acres burned in 2014 was 16,687.

Year	Number	Total Area Burned	Average Fire Size
2009	1,047	16,159	16.84 acres
2010	2,222	35,197	15.84 acres
2011	2,435	41,783	17.16 acres
2012	2,148	34,434	16.00 acres
2013	787	11,261	14.30 acres
'09 - '13 Avg.	1,728	27,767	16.07 acres
2014	1,240	16,687	13.5 acres

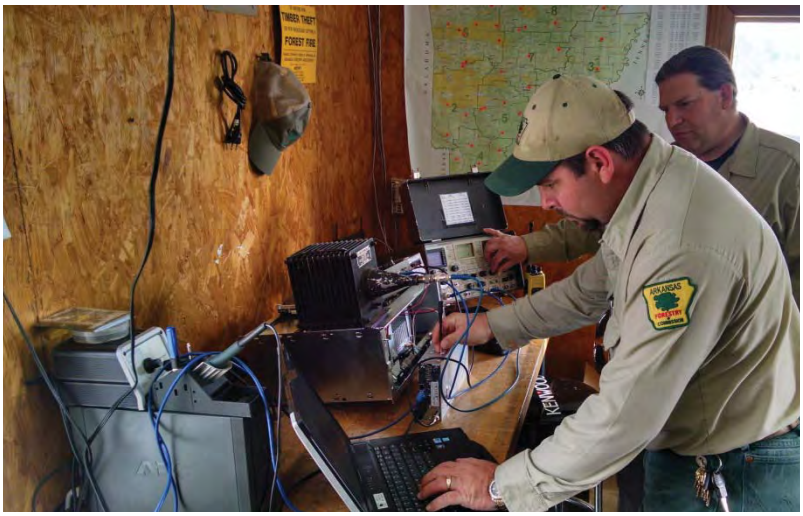
ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

Communications

In order to dispatch fire crews, the AFC operates 52 communications towers and 12 base stations. Additionally, the AFC has access to the Arkansas Wireless Information Network (AWIN), which includes an AWIN base station located in each district office and two additional units in the Central Dispatch Center at Malvern. Not only do dispatchers have statewide communications ability with AFC crews, but also with the Arkansas Department of Emergency Management Communications Center, county Office of Emergency Management officials, volunteer fire departments, and the U.S. Forest Service Hot Springs Dispatch Center. As an alternative back up, VSAT & MARS radios are installed. There are currently 145 AWIN Mobile radios installed in AFC Vehicles.

Over the last year, the goal of getting ready for the future FCC Mandate of EXTREME NARROWBANDING, P25 Digital technology, has largely been achieved. All 325 handheld radios and 350 mobile radios have been replaced with new technology equipment. Technicians are currently in the process of replacing 32 of the VHF Analog Repeaters with new VHF P25 Digital Repeaters. The remaining 20 will be replaced later in 2015.



Also in 2014, the goal to remove radio repeaters from unsafe and decaying fire towers has partially been achieved. With the cooperation of AHTD, AFC technicians were able to relocate three repeaters to better and safer AHTD towers, fully equipped with generator back up and climate controlled buildings. At the District 6 office in Clarksville, a new 40-foot tower was installed by AFC technicians. This was done to improve radio communications to the District 6 north area.

The AFC Communications Crew made numerous radio, data, voice, and electrical repairs in all AFC districts throughout the year. The District 4 Camden shop was vandalized, with electrical wiring removed; AFC technicians had new wiring installed within days. The District 4 Stamps office had a new phone system installed, after phones stopped working. Later in the year, the District 8 Batesville office requested a video camera system following an office burglary. Cameras installed by AFC technicians caught vandals during the second attempted burglary and helped put a stop to the crimes.

Wildfire Statistics By Cause, 2014

Cause of Fire	Number of Fires	Acres Burned
Debris Burning	658	7,791
Incendiary Burning (Arson)	281	4,807
Miscellaneous Burns	168	2,381
Equipment Use	71	917
Lightning	15	168
Children	14	150
Smokers	15	207
Campfire	17	263
Railroad	1	3

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

Aviation

The aviation department supports each of the eight AFC districts through aerial fire detection, timber damage surveys, insect and disease surveys, and through cooperation and partnerships with other state and federal agencies. Aviation operated 15 aircraft statewide with four full-time pilots. Extra-help pilots are used to supplement during periods of high fire danger. All AFC pilots hold at least a commercial pilot's certificate with instrument privileges obtained through the Federal Aviation Administration. (AFC Pilot Jake Harrell was tragically killed during a routine wildfire detection flight in February, 2014, in one of the state aircraft. See tribute to Jake and his service on page 31 of this report).

Five of the aircraft are state owned and ten are federally owned. Two Aero Commander twin-engine planes are utilized in an air attack role, coordinating air tanker suppression aircraft. The 13 single-engine aircraft are used for fire detection, timber damage surveys and other forestry related needs.

All AFC aircraft are maintained to FAA standards. Upgrades to avionics are completed 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 2014, the aviation crew recorded 684 flight hours while detecting wildfires, timber damage, and other forestry-related purposes.

During 2014, the AFC Aviation Department installed tracking devices in each aircraft using device software known as "Spider Tracks." Spider Tracks is a satellite-based tracking system that allows AFC Dispatch to track each aircraft online. Every two minutes the Spider Tracks unit sends a position report that is displayed on a map. Each position report includes the date, time, latitude/longitude, speed of the aircraft and the direction the aircraft it traveling. In the event of an emergency, the pilot can push the "SOS" button and the unit will start sending reports every 30 seconds.

The Aviation Department also installed new Emergency Locator Transmitters in each aircraft. The new ELTs have built-in GPS capability, which updates the unit's position every 15 seconds. In the event of an accident, the unit will automatically send a position report via satellite every 50 seconds. This satellite system is monitored by the Air Force Search and Rescue Center.

Aviation staff also travelled around the state to conduct 12 AFC Walk Tests.

Fire Weather and Prescribed Burning

Prescribed (or controlled) burns are performed as weather permits to improve forest health and to reduce the risk of out-of-control wildfires in the future, by removing highly combustible, dead vegetation. The AFC Fire Weather Supervisor records and organizes prescribed burn information to comply with new voluntary Smoke Management Guidelines. Furthermore, the Fire Weather Supervisor provides the latest weather information to AFC fire crews to better plan and manage statewide prescribed burns.

In 2014, a total of 1,078 control burns were recorded for 224,509 acres.

Prescribed Fire by Category

Landowner	Total Burns	Acres Burned
Private	235	16,733
Industrial	367	31,875
State Government	250	28,138
Federal Government	226	147,763
Total	**1078**	**224,509**

Prescribed Fire by AFC District

AFC District	Total Burns	Acres Burned
District 1	140	11,556
District 2	187	76,244
District 3	38	3,616
District 4	157	14,739
District 5	208	26,770
District 6	113	42,217
District 7	136	31,555
District 8	99	17,832
Totals:	**1,078**	**224,509**

Rural Fire Protection

The AFC Rural Fire Protection (RFP) Program serves the needs of rural Arkansas fire departments, as well as the repair needs of AFC firefighting vehicles and tractors. Communities need prepared, well-equipped fire crews. RFP provides required Wildland Training Courses for volunteer fire departments (VFDs) and administers federal grant programs to assist VFDs with the acquisition of firefighting equipment.

Firefighting equipment and vehicles are provided through the Federal Excess Property Program. Vehicles destined for VFDs are evaluated and repaired for initial service at the RFP maintenance facility. Additionally, VFDs may apply to receive interest-free loans - or Wild Fire Volunteer Fire (WFVF) Grants.

Rural Fire Protection 2014 Highlights:

Assisted 34 communities with Wildland Fire Suppression kits, totaling $102,000 in the value of provided wildland fire equipment.

Conducted 65 classes of the 8-hour Wildland Fire Suppression Training Class. There were 546 VFDs represented and 2,638 students received certification.

Provided 107 firefighting vehicles to VFDs; total equipment value was $9,900,661.63.

Financed 16 interest-free loans to communities for firefighting equipment, totaling $200,219.66 in loan dollars.

Hosted annual Firefighter Appreciation Fire Show, with participation as follows: 298 Firefighters were in attendance, representing 107 volunteer fire departments, alongside 27 individuals representing 14 Fire Services Vendors.

Law Enforcement

Case Type	Total Completed
Fire Cases	137
Timber Theft	79
Dumping Cases	44
Vandalism	2
AFC Internal	2
Total Cases	**264**

The AFC has three statewide investigators and 12 district Law Enforcement Officers (LEOs). The district LEOs are rangers and foresters that also have law enforcement responsibilities, as additional duties. The AFC has the authority to enforce all State laws, but focuses primarily on unlawful dumping, timber theft, forest fires, and logging equipment theft/vandalism. LEOs aggressively seek prosecution of violators to deter such crimes. Rangers with law enforcement responsibility are recommended to take 16 hours of law enforcement training each year; district LEOs and the investigators are asked to attend 40 hours of training. All LEOs attended firearms training.

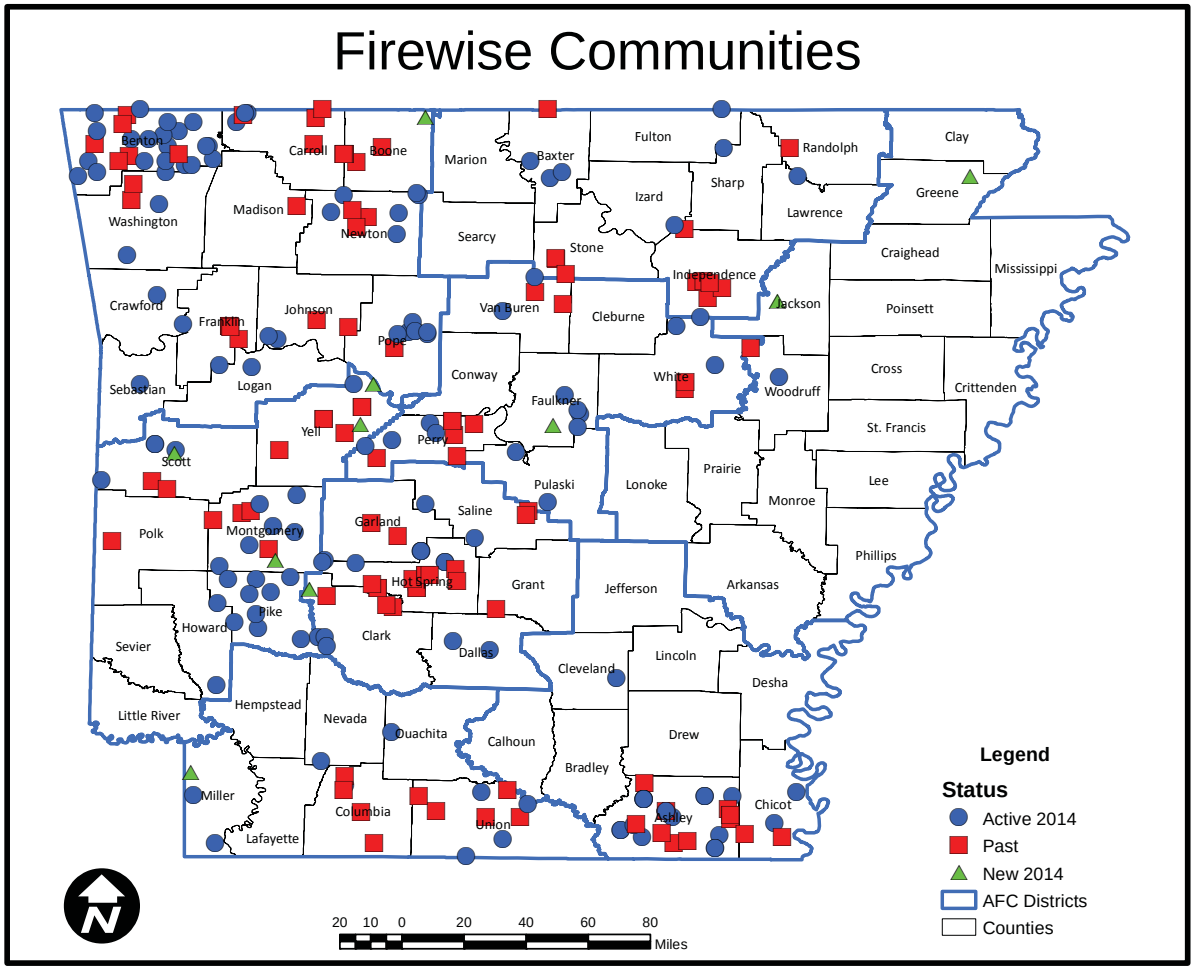
During 2014, LEOs conducted arrests on felony and misdemeanor cases and recovered more than $174,875 in restitution to landowners. Efforts of LEOs, through citations and suppression costs, resulted in the collection of $3,476.50 in fines and $348.19 in suppression costs. In all, $178,699.69 was recovered. LEOs also patrolled state forest land (at Poison Springs State Forest) during deer season. Officers assisted in several search and rescue efforts, emergency response incidents, and assisted other agencies throughout the state, when requested. Notable partnerships and incidents include those listed below:

- Search and Rescue for AFC Pilot, Jake Harrell (AFC LEO served as Incident Commander and Security Manager)
- Attended State Law Enforcement Memorial at Arkansas Capitol (as escort and guest speaker)
- Attended National Law Enforcement Memorial in Washington D.C. (as escort)
- AFC LEOs are members of the Southeast Arson Task Force (which combines LEO's from all Southeast compact states); LEOs attended 40 hours of training in Georgia.
- Involved in numerous community events, including fishing derbies and Shop-with-a-Cop events.

Arkansas Firewise

The Arkansas Firewise Program had 150 Firewise-recognized communities in 2014, more than any other participating program in the United States. Firewise personnel provided Risk Assessment Training to 26 fire departments in 2014, which is hands-on training for assessing wildfire risk house-by-house in rural fire districts. Arkansas Firewise partners with the Arkansas Fire Training Academy to provide accreditation for Risk Assessment Training, which counts toward the 16-hour annual training requirement for statewide firefighters.

This program has overseen 272 Community Wildfire Preparedness Plans, which remain updated and on file in the Little Rock office. Arkansas Firewise works on the retention of and support toward projects and training of currently active Arkansas Firewise communities, and provides educational support to communities across the state.



Forest Resource Management

AFC forest management division implements innovative forest management programs and practices to establish, conserve, and utilize forests and related natural resources that will enhance social, environmental, and economic benefits.

Forest Stewardship Program

The AFC works with a diverse group of partners and professionals to conserve, protect, and enhance Arkansas's forests through the Forest Stewardship Program. The program provides an opportunity for non-industrial, private forest landowners to manage their property for multiple-uses, utilizing professional forestry guidance objectives including: wildlife, recreation, soil and water conservation, agro-forestry, and/or timber production. The primary delivery mechanism is development and implementation of a comprehensive Forest Stewardship Management Plan prepared by AFC foresters, consulting foresters, AGFC private lands biologists, as well as soil and water professionals.

As of 2014, Arkansas had 4,618 landowners enrolled in the Forest Stewardship Program, who own 851,926 acres. There are 1,310 Certified Forest Stewards with 282,193 acres, maintained under the Forest Stewardship Program guidelines. In 2014, 193 Stewardship Plans were written or revised, encompassing 29,445 acres. Consulting foresters wrote 11% of the plans, accounting for 9% of the acreage.

Landowners certified as Forest Stewards:	**59 landowners, 9,386 acres**
Re-certification of Forest Steward properties:	**50 properties, 15,735 acres**
Landowner Assists:	**133 landowners, 18,444 acres**

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

Urban and Community Forestry

2014 Program Highlights

Number of people living in communities provided educational, technical, and/or financial assistance:	1,287,976
Percent of population living in communities managing programs to plant, protect and maintain their urban and community trees and forests:	37%
Volunteer hours accumulated through tree planting projects, tree board participation, organizing workshops, and training program hours:	25,246 Hours

The Urban and Community Forestry Program is designed to assist communities, non-profit organizations and educational institutions with the necessary tools and information to promote forest stewardship in communities. Engaging these groups encourages urban forestry at the local level. To meet the growing demand for technical assistance, the AFC provides assistance through district arborists and urban forestry representatives from the eight districts. These individuals work closely with the staff urban foresters and their communities, schools, non-profits and various organizations to increase public awareness about the value of community trees. Technical assistance and educational services improve standards for urban forestry management, include tree protection for water quality and wildlife habitat, land use planning for greener neighborhoods, and teach proper planting and care practices to municipal employees, contractors and volunteers.

As part of educational programs, the AFC partners with the Arkansas Urban Forestry Council (AUFC), a non-profit with members across the state. Various workshops were held in 2014 including the "Energy Conservation with Trees," and the International Society of Arboriculture Arborist's Certification Workshop. The AUFC and the AFC partnered with the Illinois River Watershed Partnership for the first Sustainable Communities Summit. The summit brought together mayors from NW Arkansas communities and constituents in conservation. Two Green Infrastructure workshops, "Evaluating and Conserving Natural Assets," were held in Springdale and Little Rock. More than 120 professionals were represented at the workshops including mayors, regional, county and city planners, city parks directors, land trusts, non-profits, urban and county foresters and landscape architects.

In November, 18 arborists and foresters from six states attended Urban Forest Strike Team (UFST) training in Fayetteville and Springdale. Strike Teams provide professional recovery services to communities following ice storms, hurricanes, and other natural disasters. The UFST program was developed by state forestry agencies and the U.S. Forest Service in the south and is now being implemented in northeastern and midwestern states.

The training session was conducted by the Arkansas Forestry Commission in cooperation with the U.S Forest Service, Arkansas Department of Emergency Management, Washington County Department of Emergency Management, the cities of Fayetteville and Springdale, and personnel from state forestry agencies from across the South. Training consisted of a mock disaster exercise, which simulated a late fall snowstorm.

Trees, and their shade, have been proven to dramatically reduce human exposure to damaging ultraviolet radiation. Sun damage to the skin during childhood is the leading cause of skin cancer in adults. Many school playgrounds around Arkansas are in very sunny locations with little or no shade. The STOP program was developed in Arkansas eleven years ago to provide trees to schools with little or no playground shade.

Over 2,000 students at nine schools participated in STOP programs in the fall of 2014. Tree planting ceremonies were held at: Hermitage, Mansfield, McCrory, Jonesboro, Poyen, Hector, Greers Ferry, Midland and Yellville.

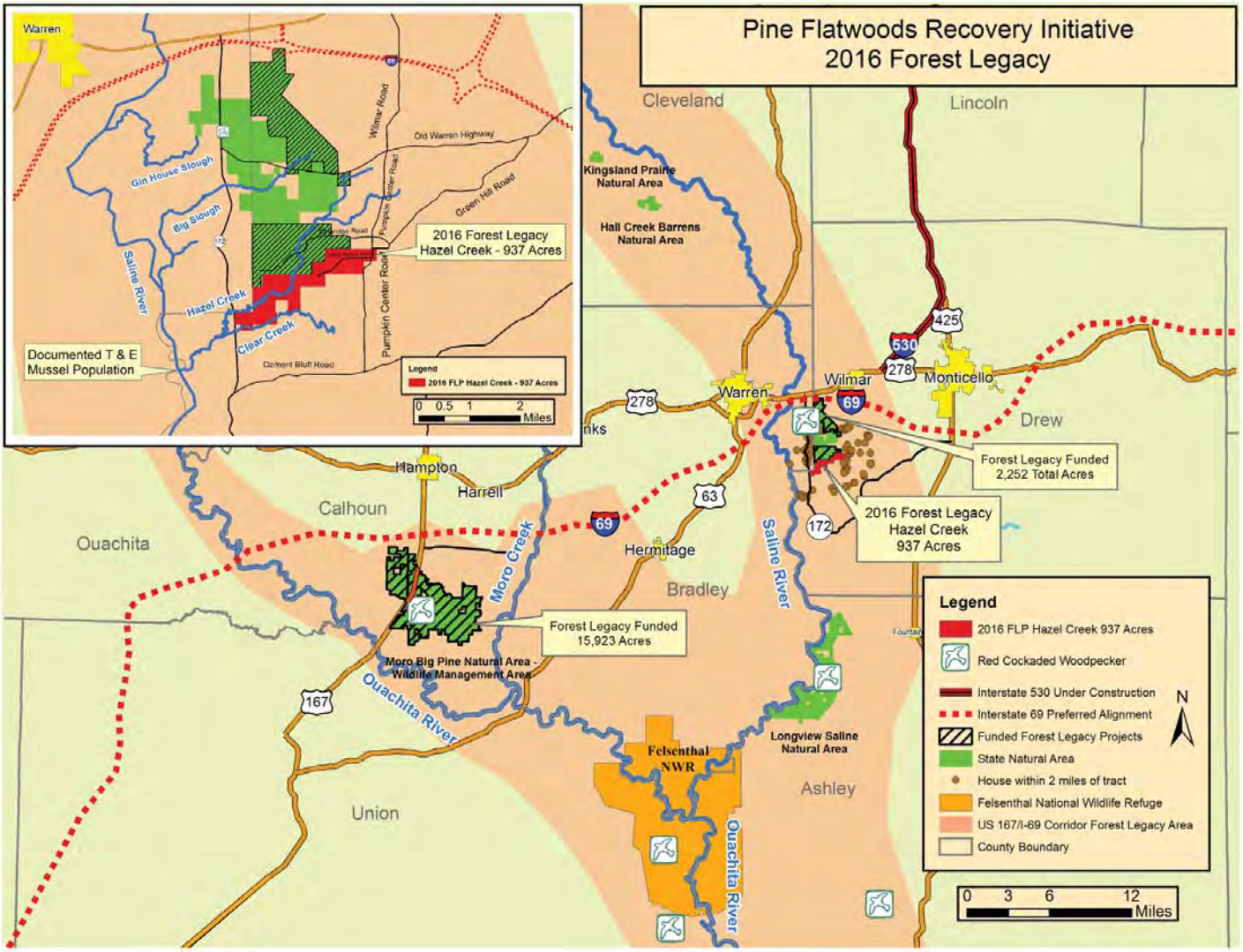
Participating students and their teachers learned how shade can help prevent skin cancer, as well as how forests provide clean air and water, wood for homes, wildlife habitat, buffering for wind and noise, and places to enjoy the outdoors.

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests

Forest Legacy

The Forest Stewardship Committee met October 23, 2014 and approved two Forest Legacy projects. One was the Hazel Creek tract of the Pine Flatwoods Recovery Initiative (PFRI) project in Bradley County and the other was the Reece Creek tract of the Wye Mountain Headwaters (WMH) project in Pulaski County. The projects were submitted to the national level in November 2014. If the WMH project is funded, Central Arkansas Water will purchase the 138 acre tract fee simple for $3.1 million. If the PFRI project is funded, the Arkansas Natural Heritage Commission will purchase the 937 acre tract fee simple for $1.535 million. 75% of the total cost for the tract(s) would be reimbursed with Forest Legacy grant(s). AFC would be the pass-through agency for the grant(s).



Detailed map of the Pine Flatwoods Recovery Initiative Project

GIS

During the AFC Tree Planting Seminar on October 29, 2014, the AFC Forest Legacy Coordinator unveiled an Android smartphone app for gathering information during tree planting and survival inspections. AFC personnel will begin using the app during the 2014-2015 planting season. The four sections of the Fire and Activities Reporting website have been completed, tested, and pre-deployment preparations are underway. The specialized website will serve to record forest management activities, wildfire activities, and map creation. AFC staff will train AFC personnel to use this new tool via YouTube step-by-step instructional videos.

Tree Planting and Survival Inspection App

Baucum Nursery

The purpose of the AFC Nursery is to produce, store and distribute pine and hardwood seedlings of the highest quality. Seedlings are coupled with genetic background that provides them with the greatest chance of survival and the highest possible growth potential. These seedlings are sold primarily to private, non-industrial landowners for afforestation and reforestation purposes.

Baucum Nursery produced 5,792,575 hardwood seedlings and 3,832,185 pine seedlings for Arkansas landowners in 2014. Baucum Nursery sold and distributed 3,894,725 hardwood seedlings and 2,140,350 pine seedlings to Arkansas landowners. Private landowners purchased most of the seedlings. The majority of pine and hardwood seedlings were planted under federal cost-share programs which include: EQIP, CRP, WHIP, WRP, and the Southern Pine Beetle Prevention and Restoration Program.

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

Promotional efforts for seedling sales will be continued by all district and county personnel. In 2014, a new 17 ft. x 40 ft. cooler was constructed at the District 6 Office in Clarksville. There are 13 remote cooler locations in addition to Baucum Nursery, where landowners can pick up seedlings. New coolers have been built in 4 of the 13 remote locations. These new coolers are critical to the distribution of seedlings, especially for landowners with small land tracts.

Tree Improvement

The AFC continues to be aggressive and innovative in meeting the reforestation needs of Arkansas's private non-industrial landowners by providing seed of the highest possible genetic gain and quality. The AFC's breeding and testing program and orchard management practices continually improve the genetic gain offered from our programs.

Production orchards are managed for maximum seed production with low cost. All cultural practices are applied according to specifications provided by the Western Gulf Forest Tree Improvement Program (WGFTIP). Establishment, maintenance and measurements continue on all the pine and hardwood progeny tests.

The AFC, in association with WGFTIP, 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 shortleaf pine seed orchards are being harvested. The balance of cones and seed are then sold.

Cone and Seed Collection

The AFC harvested 435.78 bushels of improved loblolly pine cones for a yield of 503.78 pounds of seed - which is a rate of 1.16 lbs of seed per bushel.

The advanced generation shortleaf pine orchard produced 10 bushels of cones.

The AFC collected 3,000 pounds of sawtooth oak seed, 1,100 pounds of improved cherrybark oak, and 33 pounds of improved nuttall oak seed.

Forest Health

The AFC Forest Health Program provides technical assistance to AFC personnel and landowners regarding the prevention, detection, evaluation, and suppression of forest insects and diseases. All are encouraged to report any potential forest health issues to the forest health specialist in Little Rock.

Native Forests Pests

In Arkansas, native insects and diseases occasionally cause forest health problems. In 2014, limited native pest outbreaks were reported. A majority of the reported problems were the continued effects of hypoxylon canker of oak and hickory and pine bark beetles. These two issues were prevalent following the statewide drought conditions between 2011 and 2013. Fortunately, normal rainfall patterns in 2014 have lessened the impact from drought responding pests.

Forest Health Cont.

Pine sawflies caused noticeable damage in the southwestern region of the state. More specifically, loblolly pine sawfly, Neodiprion taedae linearis, was the primary culprit behind more than 300 hundred acres of defoliation within the counties of Dallas and Clark. Pine sawflies rarely cause tree death, and trees recovered from what can be described as a growth and aesthetic loss.

The AFC continued to participate in the south-wide southern pine beetle (SPB) pheromone trap survey. Trapping results predicted a low or stable population. Only one beetle was caught in 2014. Five aerial detection flights were used early in the 2014 fiscal year to monitor the presence of infestations. Because SPB densities are low, future fights will be focused only on key areas.

Southern Pine Beetle Prevention and Restoration Program

Funding for the Southern Pine Beetle Prevention & Restoration Program was reduced by the USFS in past years; however, the program continues to provide incentives for landowners wishing to thin dense pine stands. In the 2014 calendar year, the program provided a total of $154,000 in cost-share funding for landowners and incentive for loggers.

For the 2015 calendar year, 38 thinning plans and 13 site preparation plans (i.e., burning, ripping, and pine planting) were approved. These projects cover a total of 1,813 acres. AFC obligated $134,765.60 of cost-share funding that will go directly to landowners.

Gypsy Moth

The invasive pest known as gypsy moth may pose the greatest threat to Arkansas's hardwood forests. The AFC supports the Arkansas State Plant Board in its efforts to detect and eradicate any gypsy moth infestations within the state. Several hundred pheromone traps are used to detect gypsy moth every year. In 2014, a single suspect moth was captured near Prescott (Nevada County). The area is expected to have low risk of establishment; however, the Plant Board will delimit traps in that area over the next two years.

Catching a single suspect moth is not uncommon. In 2012, one suspect moth was caught in the vicinity of Parthenon (Newton Co.). In 2013, another suspect moth was caught near Maumelle (Pulaski Co.). After detection, no suspect moths were caught in these two locations during the following years. It is a fair assumption that these suspect moths were hitchhikers on firewood moved long distances from areas east of Arkansas.

Emerald Ash Borer

Emerald ash borer (EAB), an invasive beetle from Asia, was detected in Arkansas during the summer of 2014. As a result, the Arkansas State Plant Board and Animal Plant Health Inspection Service Plant Protection and Quarantine established a quarantine that included the six counties with EAB detection and 19 additional counties. Key regulated items include: ash nursery stock, ash timber, and hardwood firewood.

EAB is capable of removing ash from Arkansas's forests. It attacks ash trees of all sizes and health condition. It is difficult to detect, and for that reason, it is speculated that EAB established in Arkansas more than five years ago. Unlike other pests, EAB may only take a single piece of infested firewood to establish in new locations.

In the past, AFC and USFS have used girdled ash trees in an effort to detect the insect. This method will continue along with frequent site visits in 2015. The combined efforts of AFC, the Arkansas State Plant Board, and other agencies will help to determine the full extent of the infestation and how the insect is dispersing. Anyone who finds dying ash trees are encouraged to notify the forest health specialist.

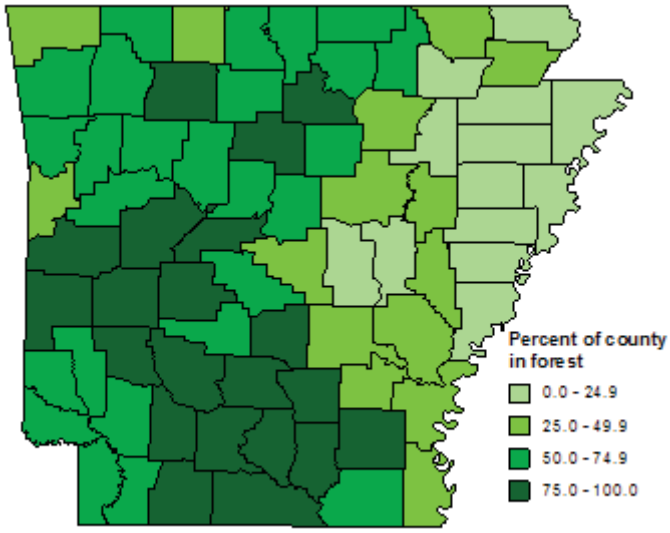
Redbay Ambrosia Beetle and Laurel Wilt Disease

Laurel wilt disease and its vector, the redbay ambrosia beetle, have not yet been discovered in Arkansas. However, the disease and beetle were detected in Louisiana's Union and Claiborne Parishes close to the Arkansas border. In 2015, detection methods will be implemented to discover if the disease and vector are present in Arkansas. This disease is a threat to sassafras and a few rarer members of the Lauraceae family. FIA data indicates that over half of the total volume of sassafras may be found in the Ozark region.

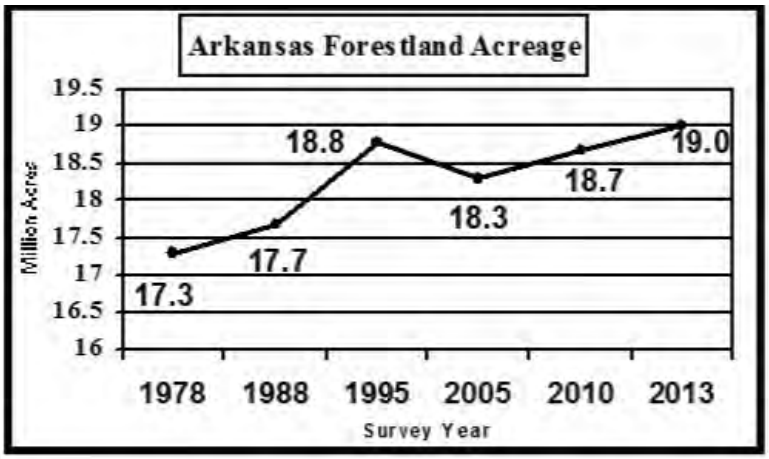
Other Forest Health Accomplishments during FY14:

- 30 landowner assists on were recorded.
- 58 sites were surveyed for insect and disease outbreaks
- 9 newspaper articles were written for insect and disease related issues

Annual Forest Survey Data



The Forest Inventory and Analysis (FIA) program has been collecting forest resource data in Arkansas since the 1930s. FIA data is obtained from permanent inventory plots located primarily on a 3x3 mile grid across the state. There are about 5,700 FIA sample plots in Arkansas, each is re-inventoried every five years. FIA foresters collect measurements on 20% of the plots each year, which provide annual updates about forest growth, damage, mortality, health, biomass, ownership trends, timber availability, and land use trends.



Prior to 1999, the U.S. Forest Service conducted all the Forest Inventory surveys in the state. Beginning in 1999, the AFC entered into a cooperative agreement with the Southern Research Station (SRS) where the AFC would conduct the field measurements and the Forest Service would continue producing statistical reports from the data. The latest inventory data can be found at the National Forest Inventory Program Data and Tools website (http://www.fia.fs.fed.us/tools-data/).

The Arkansas Forestry Commission's FIA program consists of one Forest Inventory Coordinator and six Forest Inventory Specialists. These foresters work full time collecting research data and must maintain a minimum Quality Control/Quality Assurance grading average of 87%.

During the 2014 calendar year, The AFC's Forest Inventory program collected data from 900 research plots. The QC/QA grading average for the year was 97.4 %. The 2013 annual survey has been posted on the National FIA Data and Tools website. The 2013 data tables are available on the SRS website at (http://srsfia2.fs.fed.us/states/arkansas.shtml).

Water Quality Management Program

The AFC is the designated management agency for the silvicultural section of the Arkansas Water Plan. The Southern Group of State Foresters has emphasized six areas for state water quality programs (which we follow) as listed below: 1) BMP training and education for landowners, loggers, and foresters;
2) Courtesy Exams on active logging sites;
3) Biennial monitoring of BMP implementation on silvicultural sites throughout the state;
4) Resolution of timber harvesting/water quality complaints; 5) Coordination with other state and federal agencies, and; 6) Participation in water quality grants.

In 2014 the AFC offered three specialized BMP technical training sessions for skidder stream crossing to 107 Loggers and Foresters. BMP training was provided to 38 private landowners, as well as two in-house technical training sessions for 34 AFC County Rangers and Foresters. The AFC partnered with NRCS & AGFC and offered two BMP training sessions for 60 District Conservationists, technicians, and 10 Private Lands Biologists. The AFC worked with the ATPA to provide several training sessions in Arkansas, Texas, and Oklahoma to approximately 502 loggers, foresters, and timber buyers.

Courtesy Exams

Courtesy exams provide an opportunity for water quality staff to meet with foresters and loggers in the field to discuss BMP implementation. Manuals, brochures, and fact sheets are provided to participants. Eleven exams, with 59 participants, across nine counties were hosted in 2014.

Complaint Resolution

The AFC processes logging complaints and makes a determination concerning whether water quality impairment, or the potential of impairment has taken place. In 2014 there were 26 complaints filed, thirteen of which were valid complaints. All 13 valid complaints were resolved by implementing BMPs.

A part of Forest Resource Management includes the coordination of Natural Resources Conservation Service (NRCS) Conservation Programs, like these described here and on page 22 …

Wildlife Habitat Incentives Program (*NRCS)

The Wildlife Habitat Incentives Program (WHIP) is a voluntary program for landowners who want to develop and improve wildlife habitat, primarily on private land. 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.

In 2014, the Commission provided 15 Management Plans on 13,650 acres to private, non-industrial forest landowners. A total of 55 landowners were assisted, across 3,629 acres.

Environmental Quality Incentives Program (*NRCS)

The Environmental Quality Incentives Program (EQIP) provides a voluntary conservation program to farmers and ranchers. EQIP offers financial and technical help to assist eligible participants with implementation of structural/management practices on eligible agricultural land. A portion of the state allocated EQIP funds may be dedicated to forestry practices. EQIP addresses Forest Protection, Health, and Water Quality. Forest practices include firebreaks, prescribed burning, fencing, forest stand improvement, invasive species control, tree planting, water bars, stream crossing structures, culverts, and seeding/stream bank stabilization. EQIP offers contracts to provide incentive payments and cost-shares to implement conservation practices. EQIP activities are carried out according to a plan that identifies appropriate conservation practice or practices to address the resource concerns.

In 2014, 262 EQIP landowner assists were given on 19,828 acres, and 20 EQIP landowners with 1,493 acres were referred to forest consultants and other resource professionals. The AFC prepared or revised 195 management plans on 13,560 acres for non-industrial private forest landowners (NIPFLOs) to implement EQIP eligible practices. Planting inspections were done on 48 landowner properties, comprising 2,027 acres. Seedling survival checks were conducted on 114 landowner properties, comprising 4,490 acres. Prescribed burns were performed on 25 tracts, which totaled 1,096 acres. Nineteen fire breaks were installed, totaling 22.9 miles.

Conservation Reserve Program (*NRCS/FSA)

The Conservation Reserve Program began in March, 1986, and was designed to retire erodible cropland from agricultural production - in an effort to conserve soil. Landowners may submit applications for eligible crop or pastureland. Programs include vegetative cover for established trees, riparian buffers, wetland restoration, and bottomland timber establishment on wetlands.

The AFC is a primary Technical Service Provider (TSP) for landowners that are accepted into the CRP program. TSP responsibilities include development of the Conservation Plan to direct implementation, and verification of the implementation through audit and compliance checks.

In 2014, the AFC wrote Conservation Plans for 194 landowners, which resulted in forest management recommendations for CRP on 9,552 acres, and the planting of some 262 acres of pine seedlings and 4,051 acres of hardwood seedlings.

Poison Springs State Forest

Poison Springs State Forest (PSSF) demonstrates science based forest management that protects and conserves water, wildlife, soil, and related forest resources for the use and enjoyment of present and future generations.

PSSF is a demonstration forest located in western Ouachita and eastern Nevada counties. PSSF provides the AFC with yearly revenue while demonstrating different 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 sawtimber and 10,303,000 board feet of hardwood sawtimber. The AFC has cut timber every year since 1957. Today PSSF is 23,172 acres and has over 120,000,000 board feet of pine sawtimber and over 15,000,000 board feet of hardwood sawtimber. PSSF has added some land each year for the last several years. The most recent acquisitions came from timber industry and non-industrial private forest landowners.

The AFC used timber sale proceeds to make annual payments to the U.S. Forest Service until the original land purchase was paid for. The recent land purchases were paid for primarily through grants from the Arkansas Natural Cultural Resources Council. Timber sale proceeds pay operations and salary expenses and provide the AFC revenue for general operations. The AFC does not use general revenue to operate PSSF, and places timber sale proceeds into a trust fund used mostly for capital equipment purchases.

Income generated from formal timber sales during FY'14 was $848,945.36. Receipts from miscellaneous sales during the same time period amounted to $16,823.40. Arkansans also use PSSF for camping, hunting, hiking, horseback riding, and sightseeing. The AFC requires a permit for camping on PSSF. Most permits are issued for the October and November deer seasons. Over 350 campsite reservations were made for PSSF's primitive campsites during the year.

Income from Poison Springs State Forest, 2014

Product	Volume	Value
Pine Sawtimber	24,261* (tons)	$728,269.23**
Hardwood Sawtimber	2,252* (tons)	$112,745.90**
Pine Pulpwood	145* (tons)	$1,722.60**
Hardwood Pulpwood	46* (tons)	$6,207.63**
Misc. and Salvage	514 (tons)	$16,823.40
Non-timber Income		$837.86
		Total: $866,606.62

*Some of this was sold in FY2014 and will be harvested and paid for in FY2015. Value above reflects only income received in FY2014.
**Volume reflects only timber sold in FY2014

Note: 1,000 board feet of pine sawtimber = approx. 7.2 tons, and 1,000 board feet of hardwood sawtimber = approx. 8.5 tons.

Administration

AFC administration provides support and leadership to agency personnel with operational efficiency and effectiveness by fostering partnerships, exercising fiscal management, and cultivating a workforce that consistently responds to the challenges facing Arkansas's forests, forest owners, and citizens.

Human Resources

The Human Resources (HR) Department is responsible for employment procedures, recruitment, employee benefits, time data entry, payroll processing, workers compensation claims, training, and safety. The HR staff works with AFC employees on a myriad of day-to-day assists to facilitate a productive work environment. The Arkansas General Assembly authorized 299 regular positions for 2014, but the AFC averaged filling these with a total of 287 employees. A total of 36 agency training courses were provided – representing 5,872 total man hours taken by employees and cooperators.

Safety

Safety is a topic of every staff meeting agenda, in addition to routine tailgate sessions and local AFC unit safety meetings. Inspection of PPE (personal protective equipment) worn by AFC firefighters is reviewed in conjunction with annual equipment inspections. AFC firefighters must meet annual physical fitness standards. The AFC works with the Arkansas Department of Labor to assure that all buildings and contents meet building and shop safety requirements.

Employee Development

HR handles training requests and is responsible for maintaining copies of individual training records. Other departments also provide and report training that occurs within respective departments. Training conducted in 2014 was accomplished with several different methods, ranging from the traditional classroom settings, to field demonstrations, as well as hands-on/practical, and distance/on-line self-study training.

AFC staff continued to comply with training directives from the Department of Homeland Security, which applies to employees with emergency response responsibilities. Much of the training is available by distance-learning from the FEMA Emergency Management Institute. 106 AFC employees completed such training during 2014.

Additionally, personnel are required to take specific training provided by the DFA Inter-Agency Training Program (IATP). A total of 47 employees participated in 5 different IATP courses in 2014, including: Administering Discipline, Interpersonal Communications, Grievance Prevention and Handling, HRkansas for Supervisors, and AR Government Basics.

A total of 184 employees were certified in CPR/First Aid training to maintain their biannual certification requirements in 2014. A group of nine AFC staff members are certified instructors in CPR/First Aid to provide training to other AFC personnel.

In 2014, seven AFC employees and 37 others from state, federal and private organizations attended the Prescribed Fire Course held annually at Camp Robinson. AFC personnel help organize and instruct the annual Prescribed Fire Course. Agencies require their personnel to pass this course before they can manage a prescribed burn.

The 10th Annual River Valley Fire Academy was held on the campus of Arkansas Tech University in May, 2014. During this academy, 90 individuals registered for classes, and most attended either one or more courses that were offered. The River Valley Fire Academy remains the main training method that AFC employees and partners/cooperators receive required wildland fire training that meets both agency standards and the standards of the National Wildfire Coordinating Group. This event also continues to be a very cost effective means for agencies to arrange for employee training, locally. A total of nine different agencies and organizations were represented at the academy with attendees from several surrounding states. A total of 27 AFC employees participated as students and five AFC employees as classroom instructors.

AD Training – U.S. Forest Service (USFS) and National Interagency Fire and Disaster Responses
AFC employees and other cooperators receive specialized training for emergency response positions within the U.S. Forest Service (USFS) or other federal agencies. AFC employees attend training as Administratively Determined (AD) employees of the Federal Government. The Federal Government pays for travel and training expenses. Upon meeting the training requirements, AFC employees are then selected by the USFS or other federal agencies to fill emergency response positions.

In 2014, the AFC issued Fire Qualification Cards to 56 AFC employees, four retired AFC employees, ten to individuals from paid or volunteer fire departments, and 22 to individuals from Arkansas State Parks. All of these individuals met the training, experience, and physical fitness requirements for national certification amid many different emergency response positions. Many AFC employees continue to maintain job qualifications that allow them to be utilized as resources for national emergencies.

In 2014, the AFC deployed five AFC and four non-AFC individuals to CA, AZ, MS, WA and OR wildfires. These individuals worked as: Faller Class C, Firefighter Type 2, Air Tanker Base Manager, Emergency Medical Paramedic, RAMP Manager, Crew Boss, Staging Area Manager, Medical Unit Leader, Squad Boss, Emergency Medical Tech Basic, Faller Class B, and Line Safety Officer. Arkansas also sent out the Arkansas Razorbacks 1 Crew, which is a 20 person wildfire hand crew that included ten AFC employees.

Minority Outreach

The AFC's minority outreach efforts have changed throughout the years. Initially, these targeted efforts began with a full-time Outreach Technician whose job focused on building trust with minority landowners, on the ground forestry assistance, and working with partners to bring information to landowners who previously had little or no knowledge of forestry practices and programs. There was also an Outreach Coordinator who oversaw these outreach activities, and served as a liaison for the agency. Today, we no longer have a full-time position designated to conduct outreach. We do however, still have the Outreach Coordinator along with many AFC staff dedicated to keeping outreach efforts alive. Although none of these positions are full-time, AFC personnel work toward a shared goal of increasing landowner knowledge and participation in forestry programs and services. As a result, some 204 minority landowners in 2014 (citizens of an African-American, Hispanic, Native American, and Asian-American decent) have benefited from these initiatives. Other results from these efforts are highlighted below.

As part of minority outreach efforts, Smokey Bear programs, fire safety awareness, and tree planting ceremonies were offered to the following communities: Davidsonville Territorial Day, Batesville, Fordyce Elementary School, Bale Elementary, and schools in Pulaski, Dallas, Randolph and Washington Counties. Miller County staff participated in the annual 4-H Back to Nature program.

For the first time the AFC along with UAPB & Silas H. Hunt CDC and other partnering agencies worked to create a Conservation Day at Millwood State Park. The conservation day provided educational information about forestry, natural resources, environment, career opportunities and included a tour of the Domtar Paper Mill in Ashdown.

An article that highlighted Ronald Drown, a certified forest steward, from Pineville was submitted and published in the Minority Landowner Magazine 'Farmer of the Year' 2014 edition. Drown, a minority landowner, and his story - which described assistance from the AFC Izard County crew - received national recognition and is a good source of "word-of-mouth" outreach to other landowners across the nation.

The Arkansas Firewise program worked with five minority communities in 2014.

The AFC added many new staff members in 2014, including one new minority hire.

AFC Law Enforcement Officers assisted 72 minority landowners, owning a combined total of 6,447 acres, with timber theft complaints and failure to pay cases.

Special events and conferences that included minority outreach or training are as follows: Rural Life Conference, Southwest Arkansas Small Farms Conference, and landowner outreach meetings with the Arkansas Land & Farm Development Corporation at Conway, Fargo, and Little Rock. These meetings have resulted in several landowners requesting management assistance from the AFC for the first time. Landowners attending these meetings are given the opportunity to sign up to receive emails about forestry updates. Crews also reported offering many forestry programs and services specifically to minority Arkansas citizens including: Landowner management plans, hazardous tree inspections, controlled burns and tree thinning, urban forestry efforts, and stewardship presentations. The AFC's Outreach Coordinator worked with three absentee landowners in 2014.

AFC Overall Accomplishment Summary, 2014

Landowner Assists (of any kind)	2,231
Management Plans Prepared	801
Management Plan Acres	73,839
Prescribed Burn Acres	10,060
New Fire Lanes Installed	152
Presentations Given to Civic Groups	89
School Programs	456
Residential Tree Assists	312
Arbor Day Activities	44
Newspaper Articles Published	205
Community Meetings Attended	791
County Fairs/Festivals Attended	115
Contacts to AFC Law Enforcement	202
Referrals to Forestry Consultants	195

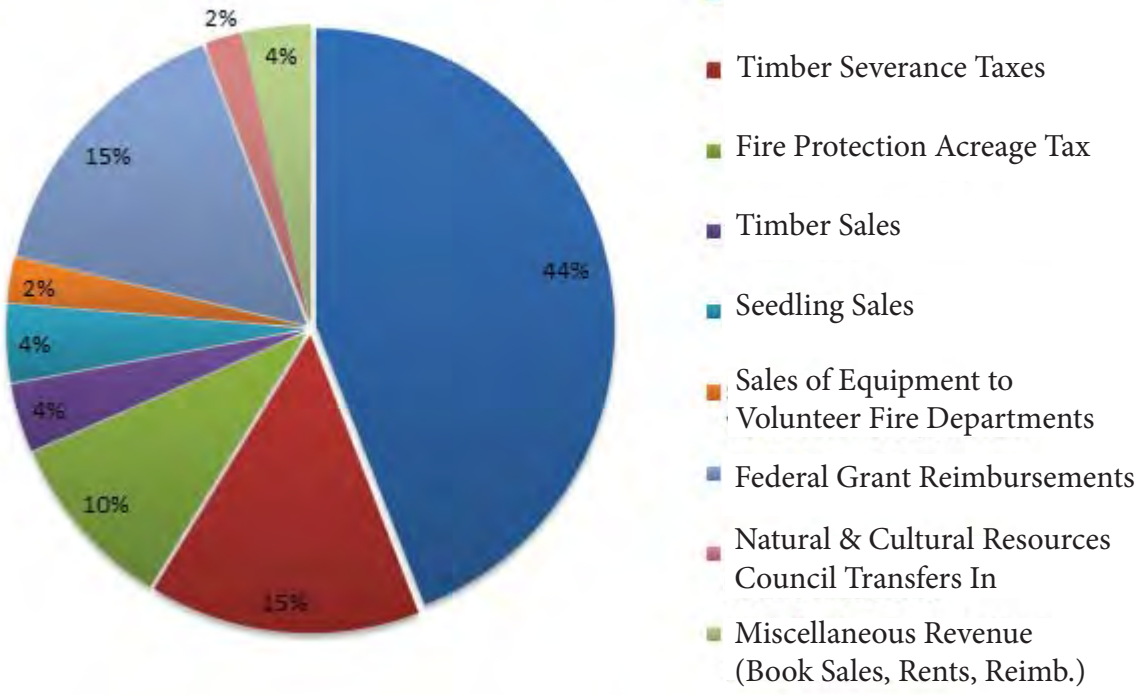
Financial Report: For the Year Ending June 30, 2014

Cash Balance, July 1	**$5,339,2837**
RESOURCES PROVIDED	
General Revenue Transfers In	10,201,999
Timber Severance Taxes	3,404,437
Fire Protection Acreage Tax	2,225,904
Timber Sales	855,169
Seedling Sales	973,344
Sales of Equipment To Volunteer Fire Departments	561,604
Federal Grant Reimbursements	3,602,669
Natural & Cultural Resources Council Transfers In	459,484
Miscellaneous Revenue (Book Sales, Rents, Reimb.)	854,096
Total Receipts	**23,138,706**
EXPENDITURES	
Salary Expense	14,661,476
Communication & Transportation of Commodities	326,156
Printing & Advertising	28,048
Repairing & Servicing	774,981
Utilities & Rent	401,493
Travel and Subsistence	139,312
Professional Services & Fees	567,383
Insurance and Bonds	134,132
Other Expenses & Services	753,216
Commodities, Materials & Supplies	1,694,735
Assistance, Grants & Aid	655,707
Refunds, Taxes & Claims	22,052
Treasurer of State Service Charges	179,332
Capital Outlay	1,842,212
Interagency Transfers for Claims & Other Expenses	255,730
Total Expenditures	**21,924,506**
Cash Balance, June 30*	**$6,607,037***
Non-Cash Expenditures	
Depreciation & Amortization	1,708,788
Loss on Disposal of Fixed Assets	3,109
Total Non-Cash Expenditures	**1,711,897**

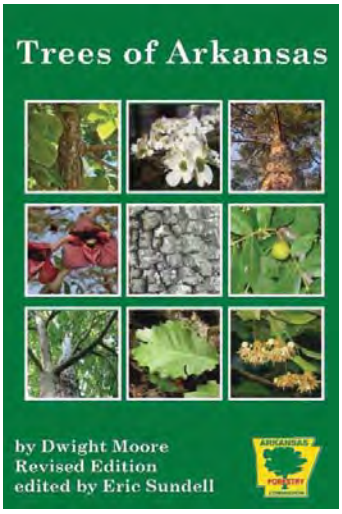
*2014 Cash balance included $406,376 restricted for Federal Grant programs, $489,387 restricted for the Rural Fire Revolving Loan program, $66,320 restricted for General Improvement Projects, $1,180,100 restricted for repayment of potential Federal liabilities, $1,537,747 restricted reserve in the Trust Fund, and $4,232 restricted for private grant activities, leaving $2,859,720 unrestricted Special Revenue and $63,154 unrestricted General Revenue for use in operations.

Protecting, Developing, and Conserving Arkansas's Forests

FY2014 AFC Resources Provided (Receipts)



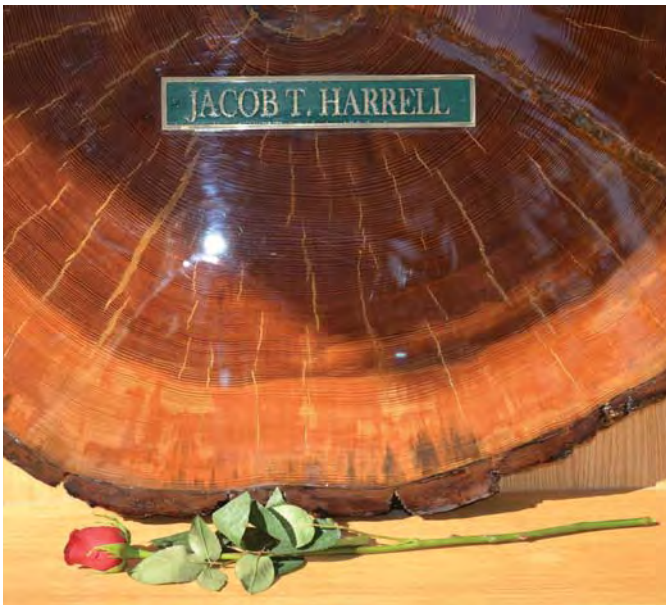
Information/Special Events Report, 2014



The Information Coordination position is the primary voice for the AFC to the residents of Arkansas, partners in-state and across the South at a state, federal and national level, and to internal AFC personnel across all districts and counties. With such a diversified agency, it is important that Arkansans have a consistent "voice" from the AFC about how each department and crew is fulfilling the AFC mission on a day-to-day basis. Updates to the website, social media, print resources and materials, newsletters, as well as press release generation, photos, and circulation of information to constituents are all high priority tasks, and are made possible by the excellent work accomplished by personnel across the state. Highlights for 2014 include:

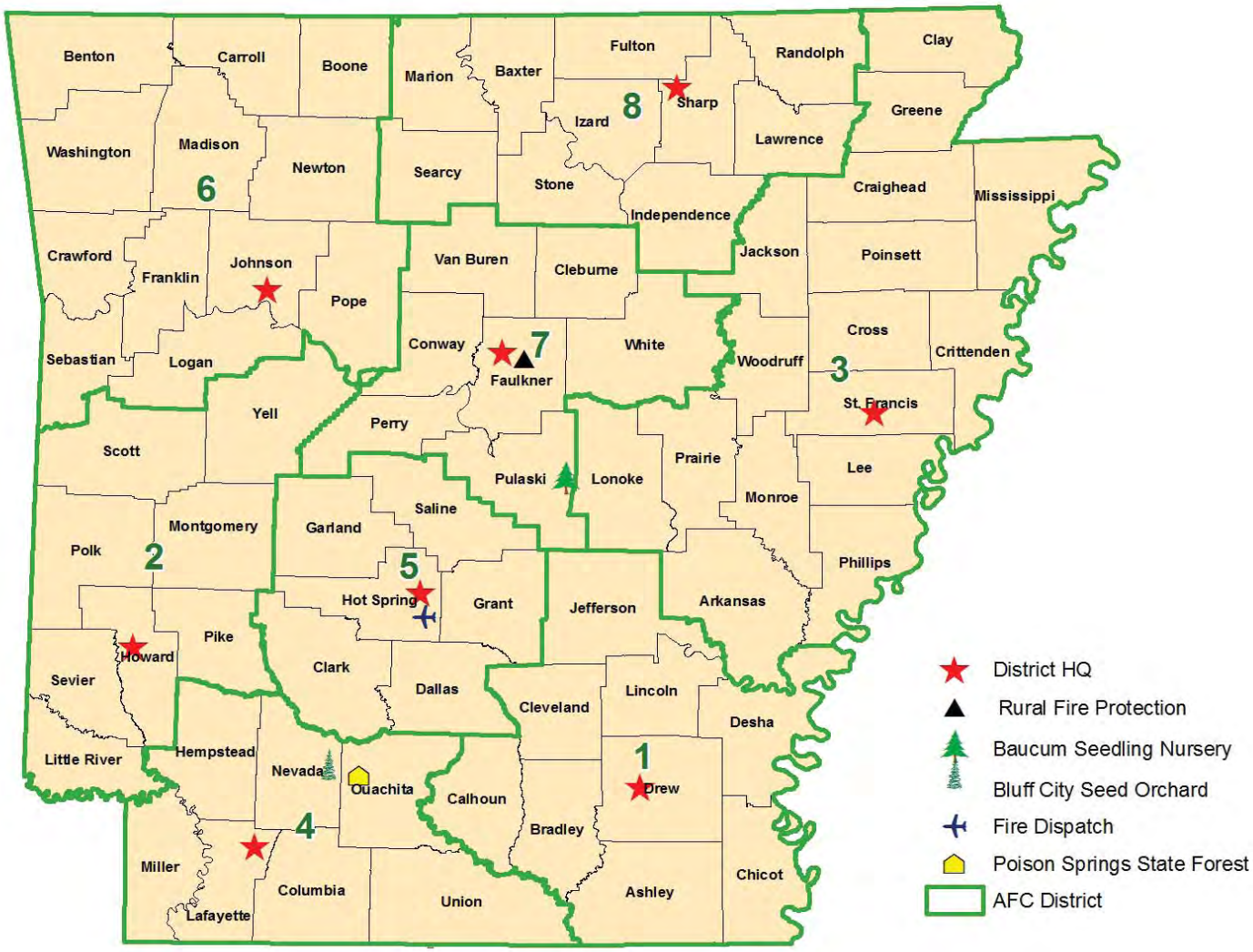
- Publishing of the first color-edition of *Trees of Arkansas*. This was edited in full by Dr. Eric Sundell and enhanced by photos of each tree species included, many photos of which are photos taken by AFC personnel.
- Arkansas Champion Trees Program received a full update, which includes 118 recognized trees, 51 Champion monument stones (donated through partnerships and grants from the Ross Foundation, Ouachita National Forest, Garvan Woodland Gardens, and the Arkansas Forestry Association), and the launching of a an AETN documentary about Arkansas Champion Trees and the work of Hot Springs artist, Linda Williams-Palmer.
- Annual Arkansas Fire Boat School, Arkansas Prescribed Burn School, and the AFC Rural Fire Show had excellent turn-out and received rich media coverage from television/print media partners. These events are instrumental in training, equipping, teaching, and networking among the AFC's biggest partners in wildfire prevention/suppression and forest management.
- More than 500 students from schools across the state participated in the Smokey Bear 70th Birthday Poster Contest, hosted July-October. Winners were featured on new AFC magnet pieces, which include Dispatch contact information.

The 2014 Annual Report is dedicated to the life, memory, and service of AFC Pilot Jake Harrell.



www.forestry.arkansas.gov

Come see us! Find office locations across the state:



The Arkansas Forestry Commission prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, gender; religion, age, disability, political beliefs, sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Arkansas Forestry Commission is an equal opportunity employer.

ARKANSAS FORESTRY COMMISSION

Protecting, Developing, and Conserving Arkansas's Forests