ALABAMA'S

TREASURED FORESTS

A Publication of the Alabama Forestry Commission

I COUNT!

ALABAMA COUNTS!

2020 CENSUS

Spring 2020

Message from the *STATE FORESTER*

Rick Oates, State Forester

Wow, what a month March of 2020 has been. Two major events have occurred so far that I don't think I will ever forget, and it's only the 20th day of the month. I certainly hope things settle down soon.

The first incident involved the line-of-duty death of an Alabama Forestry Commission employee. James Hall, a forest ranger in Chilton County, was killed in an automobile accident during bad weather. It was a sudden reminder of how quickly our plans can change. James had only worked with us about a year, and by all accounts, he loved his job. During his funeral, the preacher said James often called this his 'dream job.'

It made me proud to see how the AFC family, along with our sister state agency the Alabama Department of Conservation & Natural Resources, other state forestry agencies, volunteer fire department members, and others came together to support each other and the Hall family. Through it all, we were a family. It's unfortunate how it takes a tragedy to demonstrate the care we have for one another.

The second major event is, of course, the coronavirus pandemic. Obviously, as I write this letter, I don't have any idea how this crisis is going to end, but at this point it has already affected everyone in the world in a major way. We will no doubt be a different country after this virus is defeated and we return to a new normal; whatever that is.

Like all other state agencies, the Alabama Forestry Commission suspended non-essential services effective March 15 by order of Gov. Kay Ivey. This action was for the safety of both our employees and the general public. We don't want to risk spreading this infection by meeting with landowners. For the AFC, suspension of non-essential services means we are only fighting forest fires, and handling requests from the Governor's office and the Emergency Management Agency to perform emergency services across the state. If you were scheduled on our list for a prescribed burn, drone mapping, management plan, or other service, we will get to you once we get back to normal, but please be patient. We are all treading on new ground!

So, how do these two events in the span of less than three weeks affect Alabama Forestry? I'm not sure yet, but I'm reminded of the quote, "If you want to make God laugh, tell him your plans." So many things are going to be different for all of us after this situation. Who would have thought we would be in a place where self-quarantining and social distancing were the norm? Two weeks ago, who would have even known what those terms meant?

All I can say is . . . keep your faith, whatever that may be. It's the only way I know how to move forward from this point. We've seen the world get smaller over the past 200 years with the advent of radio, television, air travel, and the internet. We now see that a small mutation in a virus 10,000 miles away can drastically affect life here in Alabama. And, a wet road in a bad rainstorm can just as drastically affect the dreams of a man, his wife, and their three children. It's a smaller, more connected place we call Earth.

Rick Oates

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table of CONTENTS

Vol. XXXIX, No. 2 Spring 2020

2 Message from the State Forester

7 Another Case of Dying Pines
by Dana Stone

9 An Overview of Farm Service Agency (FSA) Land owner Assistance Programs (Part 1)
by Ryan T. Peek

13 Where Did All the Wildfires Go?
by John Goff

18 AFC Partnering with the National Wild Turkey Federation
by Joel Bartlett & John Goff

22 The Mystery of the Dead Loblollies
by Steven Jones

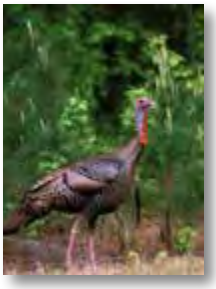
23 Cogongrass
by Jessie McDonald

24 Urban & Community Forestry & the AFC
by Katie Wiswall

26 TICKS: Small but Dangerous
by Coleen Vansant

29 2020 Certified Prescribed Burn Manager Class and Workshop Schedule

30 Remembering: John H. Dorrill, Jr. & Tommy Hendon



On the Cover:
A gobbler walks through young longleaf pine saplings.
Photo courtesy of the National Wild Turkey Federation

◀ *4*
Cypress Cove: A Place of History, Heritage, and Hope
by Laura Jean McCurdy

◀ *11*
Alabama's Rural Communities Experiencing Crucial Shortage in Volunteer Firefighters (Part 2)
by Coleen Vansant

◀ *14*
Alabama's Water Resources
by Dr. Eve Brantley

◀ *16*
Turkey Population Trends in Alabama
by Steven W. Barnett

◀ *19*
Alabama's Wood-Based Industry & Workforce Development
by Gary Faulkner & Ashley Watts Rowe

This publication is provided at no charge to the forest landowners of Alabama, with a circulation of approximately 14,000. Published three times each year, the magazine is filled with forestry information and technical assistance designed to assist landowners in making informed decisions about the management practices they apply to their land. Articles and photographs are contributed by AFC employees and other forestry or natural resources professionals.

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Cypress Cove

A Place of History, Heritage, and Hope

By Laura Jean McCurdy, Alabama Forestry Commission

How can a property influence the lives of thousands? Some may look at a farm and think it is only a piece of dirt, but to others it is a sanctuary, outdoor classroom, historical landmark, an escape to another world, and a miraculous experience. Cypress Cove has affected the lives of many, young and old. It could be referred to as a 'gem' in Franklin County's beautiful landscape.

Cypress Cove is the TREASURE Forest owned by former Alabama State Representative Johnny Mack Morrow and his wife, Martha. Located in Red Bay, Cypress Cove's name originated from the abundance of cypress trees developing throughout the farm. One incredible cypress is estimated to be over 300 years old.

Morrow's primary TREASURE Forest objective is environmental education. He thinks the youth of today should be taught how to care for nature and preserve the environment for the future. Educational events held for children at Cypress Cove entail the importance of conservation of both land and wildlife.

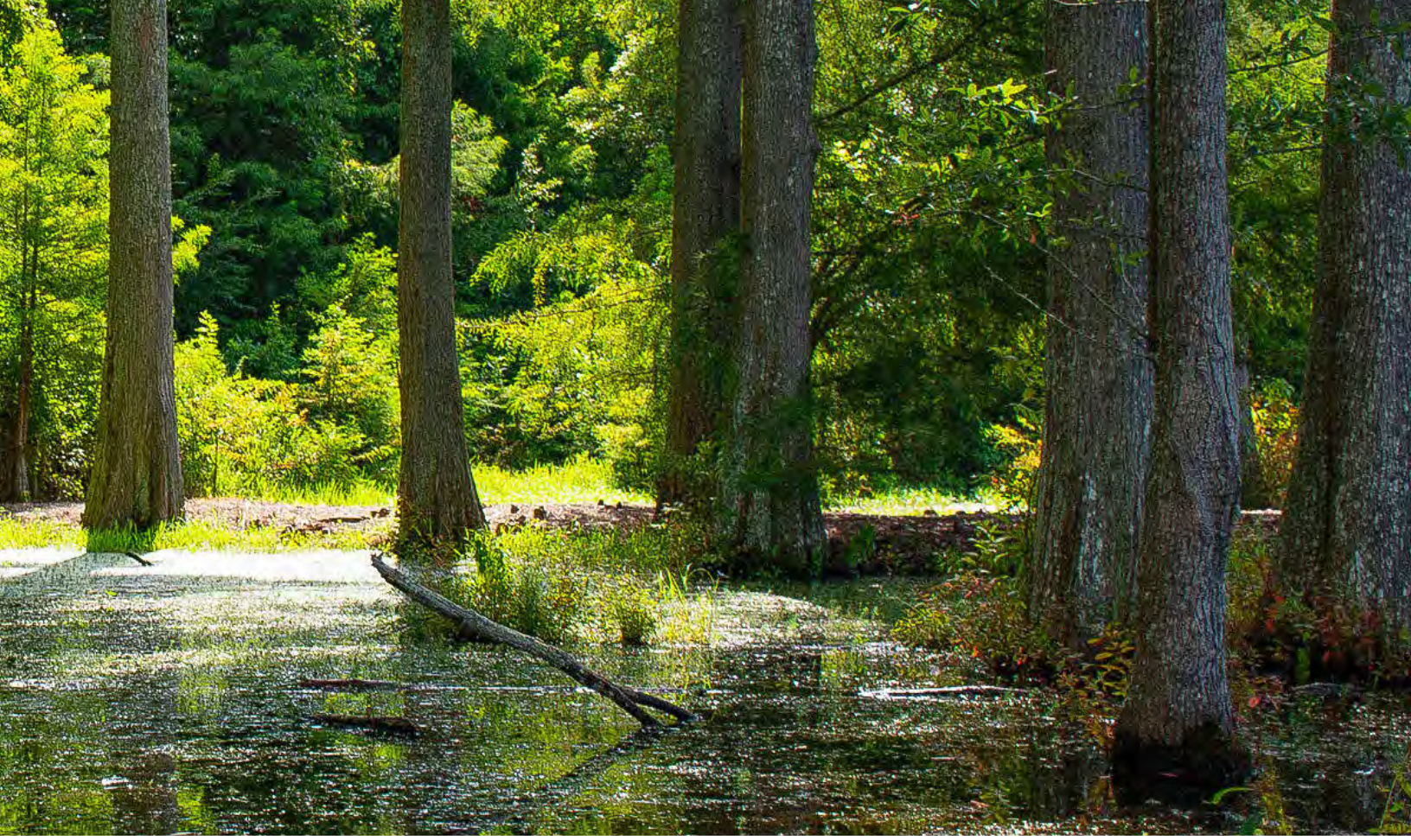
His secondary TREASURE Forest objective is wildlife, with emphasis on waterfowl. Approximately 27 acres of shallow ponds are planted with millet to provide a food source. In late fall or early winter, these ponds are flooded to create a desirable habitat for numerous waterfowl species. However, the wildlife also includes whitetail deer, bobwhite quail, ducks, and Eastern wild turkeys. Deer flock to the acorns from sawtooth oaks Morrow has planted over the years. "It's unbelievable how the trophy deer have improved," Johnny Mack said, "and our quail have come back, so we keep several coveys of them now."

The property has also focused on non-game animals such as birds. A total of seven miles of trails are maintained for the public to explore and for bird watching. Along each named trail, guests can observe signs identifying trees as well as describing waterfowl and other wildlife. The hardwoods provide a canopy over the trails which not only keep them cool, but also help maintain a favorable habitat for abundant insects as a food source for the birds. "It's almost like a nature preserve here where the birds feel safe and protected," Martha said.

Three perennial creeks flow through Cypress Cove. Brush Creek is naturally spring fed, and a 22-acre streamside management zone is located along Mud Creek and Bear Creek. The largest in Franklin County, Bear Creek spans over 37 miles and kayakers can often be seen where its waters run through the property.

Cypress Cove's timber make-up varies across all 234 acres. One loblolly plantation, which stands at approximately 34 acres, has been flourishing for 19 years. In 2012, Morrow completed the first commercial thinning for the stand, and a prescribed burn was conducted to reduce logging debris and maintain wildlife browse. He will conduct a second harvest in a year or so. Another 13-year-old loblolly pine plantation is developing on 3.5 acres, where he is making preparations for a commercial thinning.

The hardwoods are diverse in species and age. The 16-year-old bottomland hardwoods reside on approximately 83 acres. Species include river birch, yellow poplar, overcup oak, cherrybark oak, and swamp white oak. Sawtooth oaks were planted to quickly provide a mast crop for wildlife. These trees are productive and are good quality for hardwood timber production, so fire has been excluded here to protect them from damage. The stand



also serves as a flood plain helping to filter stormwater runoff into waterways.

The upland hardwoods thrive on about 46 acres. One of the only natural stands on the property, these trees are getting close to 50 years old. Due to the difficult, steep terrain of the site, no timber harvesting has taken place here. The chestnut oaks, hickories, scarlet oaks, and scattered loblolly pines provide food and habitat for wildlife. The mast crops provide protein and fat sources for deer, turkey, and squirrels during the winter months.

Cypress Cove is also home to two Helen Keller historic trees – one of which is literally out of this world. A loblolly pine was germinated from seed of an original 'Moon Tree' that had been planted at Ivy Green, the Helen Keller home in Tuscumbia, Alabama. These Moon Trees came about during the Apollo 14 mission when NASA Astronaut Stuart Roosa, a former U.S Forest Service 'smokejumper,' carried approximately 500 tree seeds to the moon and back. The seeds were germinated, and Ivy Green became a recipient of one of the seedlings when they were later distributed to state forestry organizations for the nation's bicentennial celebration.

The historic tree legacy on the Morrows' property does not end there. Helen Keller's favorite tree, a water oak, resided by the water pump where Anne Sullivan taught young Keller. She later wrote about the importance of feeling the bumpy bark and exploring the hollowed-out base. Keller would spend many hours climbing the large oak and sitting on its thick branches. Seeds were reaped from the 200-year-old tree, and now, another oak – full of life and history – grows at Cypress Cove.

The American Heritage Tree Foundation, whose mission is to educate and share American history, as well as promote environmental stewardship, harvested and distributed the seeds from the Ivy Green trees. Due to their historic significance, both the Helen Keller Loblolly Pine 'Moon Tree' and the Helen Keller Water Oak have documentation from this organization.

Morrow's own love of education and history merged into one of his significant projects, "Camp Courage." Since 2013, Camp Courage has provided children with hearing, seeing, and various physical disabilities with an opportunity to learn to use their other senses in nature, such as smelling flowers, touching leaves, and wading in the creeks. "We want to give them the Helen Keller experience," said Morrow. Camp Courage, which is free of charge, has flourished with over 250 children in attendance annually, and is now expanding to welcome children from five different states.

In addition to Camp Courage, Cypress Cove hosts numerous other educational events. The Veterans Program invites schools from multiple counties with approximately 1,200 students attending annually over the course of a few days. The children sit under military tents and listen to U.S. veterans of recent wars tell their stories. These veterans educate the youth on the cost of freedom and teach them how to properly fold the American flag. The children then tour Cypress Cove in retired military vehicles purchased by Johnny Mack, such as jeeps and trucks. "This program is a way of incorporating education and an appreciation of nature, while recognizing our veterans at the same time," said Martha.

Envirothon is another of the larger events. It is mainly attended by Franklin County high schools, where students learn about forestry, aquatics, wildlife, conservation, and soil health. Cypress Cove has provided an outdoor classroom for this program from

(Continued on page 6)

Cypress Cove

A Place of History, Heritage, and Hope

(Continued from page 5)

the beginning. “I am very proud to report that Franklin Country has more statewide winners than any other county,” said Morrow.

The farm also hosts archeological digs, boy scout meetings, firearm safety training programs on the personal shooting range, astronomy studies, and Make-A-Wish Foundation events for adults and children to attend waterfowl hunting excursions. With so many events, the couple built a large pavilion in 2002, along with concrete picnic tables, benches, and a fireplace.

Morrow noted that over the years, his relationship with the Franklin County AFC employees has evolved into a trusting friendship. They have not only provided guidance with prescribed burning, forest management, and wildlife conservation, but also assistance with educational activities for the children as well. “If anybody says that state employees don’t work, they need to come observe my Alabama Forestry Commission guys!” he exclaims.

The Morrows’ dedication to preserving Cypress Cove and sharing it with others is a true act of selflessness. Their time and efforts have built Cypress Cove into what it is today. “It’s an absolute honor to win the Helene Mosley Memorial TREASURE Forest Award,” he said.

The future is bright and hopeful for Cypress Cove. Both Johnny Mack and Martha want children to continue to enjoy this environmental treat. Morrow said further, “We hope this beautiful piece of God’s earth will be preserved and used for education for many years to come.”

Below/Right: *Johnny Mack and Martha Morrow relax underneath their cypress trees.*
Below/Left: *Camp Courage is one of the Morrows' favorite events held on their property.*

Another Case of Dying Pines

By Dana Stone, Forest Health Coordinator, Alabama Forestry Commission

Is this déjà vu? Alabama has experienced this situation before, a large number of pines dying throughout the state. It happened most recently when the extended drought in the fall of 2016 caused extensive pine mortality later that year. By January of 2017, the state was faced with pines dying from drought-related pests. The initial insect on the scene killing stressed pines was the Ips engraver beetle. In North Alabama where the drought was most severe, pine trees of all ages, sizes, and species were affected. Dying pines were noticed not only in forest stands, but also in residential areas, even in rights-of-way, and along mountain slopes.

Even though there was a reasonable amount of precipitation, this forest health crisis did not end immediately. By the end of 2017, however, many residual trees started recovering from the devastating drought with few reports of dying pines. The positive climate of adequate rainfall and average temperatures continued into 2018, allowing more time for affected residual trees to recover and regain their vigor.

So, what happened again in late 2019 to cause sporadic pine mortality across the state? Unfortunately, Alabama experienced another severe drought. Starting in August, average temperatures were hotter than normal, and this extremely warm climate was accompanied by a lack of precipitation. In many areas of the state, Alabama suffered seven to eight weeks of no rain with continuous high temperatures. Even though the drought was short-term in relation to time, it was severe. Counties in central, east, and southeast Alabama experienced the worst of the drought having several hundred acres of pine stands to die. Some of the trees that were still struggling from the drought of 2016 were now being affected three years later by another drought.

The year had begun quite well with few reports of forest health issues. But by October 2019, the agency was bombarded with calls and the scenario was familiar . . . dying pines. Once again, the drought had greatly influenced the health of the state's forests. Pines of all ages and species started showing signs of mortality. When AFC county personnel examined several stands, most of them were infested with Ips engraver beetles. Even when confirming an infestation in December, many of these bark beetles remained very active. During the period when most insects are inactive and preparing for overwintering, several stages of the Ips beetle (larva, pupa, and adult) were thriving in one tree, still reproducing and creating another generation. Another concern was that there were also a few confirmations of southern pine beetle infestations.

Periodic drought is common and will most likely occur in the future. However, predicting the frequency and severity of another drought episode in Alabama is not so simple. If the state's normal climatic pattern is altered, then the current drought regimes may change. Higher temperatures interacting with drought conditions will exacerbate moisture limitation and water stress. In other words, the harmful effects on trees will be more profound. The health and survival of trees will depend on the severity, duration, frequency, and spatial extent of the drought.

As happened in 2017, the Ips engraver beetle is the first insect to attack drought-stressed pines. If a large contiguous area of pines is severely stressed, these Ips infestations may spread in a similar fashion to a southern pine beetle spot. The most aggressive of the bark beetles is the southern pine beetle, generally attacking stressed pines during its most active time of the year – summer.

During the summer of 2017, over 2,000 beetle spots were detected across the state, with most of them being caused by the southern pine beetle. Alabama foresters are hoping that this will not be the same situation for 2020. Currently, the southern pine beetle population is declining in the state; therefore, the number of infestations may be limited, despite the drought. By this upcoming summer, we should have a better understanding of how the southern pine beetle reacts to the latest drought event.

What can landowners do if their pines are dying from drought-related pests? The first management recommendation is to prevent new attacks on existing trees. Landowners can implement management regimes to halt the spread of current infestations and regain vigor of residual pines. The specific forest pest must be identified before any management activity is implemented, because controlling an Ips engraver beetle infestation is quite different from controlling a southern pine beetle infestation. With a few scattered pines infested with the Ips engraver beetle, the landowner may choose to wait and observe the stand over the next few months for additional mortality before implementing any management practice. Neighboring pines may be vigorous enough to ward off an attack from a bark beetle. However, if most of the pines in the stand (greater than 70 percent) are infested with the Ips engraver beetle, a complete salvage may be warranted.

Many affected landowners are expressing difficulty finding vendors to salvage or thin small acreages of infested pines. If landowners need assistance with their pine stands, contact the county office of Alabama Forestry Commission for additional information on management options and control measures. The local AFC county office can also provide landowners with a list of potential vendors that will conduct harvesting practices in the surrounding area.

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An Overview of Farm Service Agency (FSA) Landowner Assistance Programs

Part one in a two-part series

By Ryan T. Peek, AFC Coastal Programs Manager

Throughout my career with the Alabama Forestry Commission (AFC) I have always been involved with forest landowner assistance programs. That involvement began over eight years ago, as a county forester assisting landowners in managing their trees in accordance with their participation in the respective federal landowner assistance programs. Fast forward to 2020 and that involvement has changed to administering the agency's landowner assistance program, providing guidance to AFC field staff, and keeping all the associated grant paperwork in order. The following article is part one of a two-part series providing an overview of what types of landowner assistance are available to non-industrial private forest landowners.

Historically, there have been two different funding sources for cost-share or financial assistance programs: the federal government through the Farm Bill, and Alabama state government through legislative appropriations to the Alabama Agricultural Conservation Development Commission Program (AACDCP). However, because the Alabama Legislature has not appropriated funding to the AACDCP in several years, only federally funded programs are currently available to landowners.

The Farm Bill provides federal financial assistance funding to be distributed by the various United States Department of Agriculture (USDA) agencies. The most recent Farm Bill was passed in 2018, the Agricultural Improvement Act of 2018, and along with it came various changes to the federal financial assistance programs. In Alabama, the two USDA agencies that most commonly provide financial assistance to non-industrial private forest landowners are the Natural Resources Conservation Service and the Farm Service Agency, which is the focus of this article.

The Farm Service Agency (FSA) administers a variety of programs designed to help landowners. The two FSA programs that forest landowners most commonly participate in are the Conservation Reserve Program, which has 'General' and 'Continuous' Signups, and the Emergency Forest Restoration Program, which is activated after natural disasters. As with most federal government programs, various requirements are necessary for participation. While this article will not go into all these requirements, it will provide a link to the FSA conservation programs website so that readers can get additional information.

Conservation Reserve Program (CRP) is a voluntary program that contracts with agricultural producers so that environmentally sensitive agricultural land is not farmed or ranched, but instead devoted to conservation benefits. CRP is intended to take highly erodible cropland out of production and stabilize soil loss through planting permanent cover crops. These cover crops may include trees, with the cover being planted to control soil erosion, improve water quality, and develop wildlife habitat. Landowners who accept a CRP contract with FSA are paid an annual rental payment and can receive cost-share assistance to establish the practice (cover crop). Contract duration is normally 10 or 15 years, with new contacts becoming effective at the start of the next fiscal year.

As mentioned earlier, the CRP program has two different types of signups, General and Continuous, with each type of signup having different, specific practices as well as a different ranking system. Let's begin by going over some background information on General CRP signups. For starters, you may hear 'General CRP' referred to as 'Regular CRP' when talking with other resource professionals. General CRP signups have historically been initiated by the US Secretary of Agriculture and normally occur on an annual basis, though there have been years where no General signup was announced. Landowners can only offer this land for General CRP enrollment during these announced signup periods.

The most recent General CRP signup was 'Signup 54' which ended on February 28, 2020. Land that is not currently enrolled in CRP may be offered during a General Signup enrollment period. However, there are often special conditions or circumstances that occur during a General signup, so it is best to periodically check with your local FSA office to get specific information related to the specific General signup.

(Continued on page 10)

An Overview of Farm Service Agency (FSA) Landowner Assistance Programs

(Continued from page 9)

Continuous signup CRP has a specific set of forestry practices with a strong emphasis on riparian buffers, bottomland hardwoods, and longleaf pine restoration. Environmentally sensitive land can be offered up during a Continuous signup much like during a General signup, the main difference being the ranking process. Continuous CRP offers are automatically accepted, provided the land and producer meet the eligibility requirements and the enrollment levels do not exceed the statutory cap. Continuous CRP offers are not subject to competitive bidding during specific signup periods.

Some landowners may be under the impression that CRP is a timber production program. This is incorrect, as all CRP practice objectives relate to preventing soil erosion, improving water quality, and/or improving wildlife habitat. I think it is important to reiterate, that no CRP practice will have timber production as a stated objective. That is not to say a landowner cannot, will not, or could not get some timber production out of a CRP practice, but timber production is a secondary benefit.

Emergency Forest Restoration Program (EFRP) provides payments to eligible owners of non-industrial private forest land to assist with completing emergency measures to restore land damaged by a natural disaster. EFRP enrollment is administered by FSA state and county committees and county offices. Landowners should contact their local FSA office regarding EFRP enrollment periods and eligibility. The local FSA county committees determine land eligibility using on-site damage inspections that assess the type and extent of damage. These local FSA offices will often request the Alabama Forestry Commission to make the site inspections. Cost-share rates and payments are determined by the FSA but will not exceed 75 percent of the cost to implement approved restoration practices and are limited to $500,000 per person or legal entity per disaster. EFRP covers a wide variety of forest practices, including but not limited to debris removal, site preparation, planting materials, and restoring forest roads.

Please note that these programs are subject to change. I've already seen several changes to the CRP program over the last eight years and expect it will continue to change in years to come. I recommend that any landowner considering applying for government landowner assistance should read over and fully understand the requirements of that program.

If you would like more information on either program, please contact your local FSA office or visit the FSA programs webpage at https://www.fsa.usda.gov/programs-and-services/conservation-programs/index. If you need help managing your timber, whether or not it is in a government landowner assistance program, please contact your local AFC county forester or ranger. Stay tuned, because in the next magazine I will provide an overview on the landowner assistance programs offered by the Natural Resource Conservation Service.

Alabama's Rural Communities Experiencing Critical Shortage in Volunteer Firefighters

Part two in a series: Some of the Problems

By Coleen Vansant, Public Information Manager, Alabama Forestry Commission

For approximately 85 percent of Alabamians fire response, emergency medical services, and disaster response etc. are provided by rural volunteer fire departments. In most small communities, the volunteer fire department is the first line of defense for its citizens in the event of an emergency situation.

But like the rest of the country, Alabama is seeing a threat to this big red wall of protection that we all depend on and many times take for granted.

In a study by the National Fire Protection Association released in April 2019, the United States has seen a large decrease in the number of volunteer firefighters. At the same time, calls for service have increased by 200 percent. With this disparity comes a severe diminishing in the effectiveness of a department's emergency response capabilities.

Where once fire departments were the jewel of the community and there were waiting lists of individuals wanting to join and participate in the department, now volunteers are difficult if not impossible to recruit.

Below are a few of the major causes for the decline in the number of volunteers in the fire service.

Evolution of Lifestyles

One of the primary factors in the reduction of volunteers in the fire service, which in turn has a direct impact on all other factors, is the change or evolution in lifestyles compared to 20 or more years ago.

Where once the father or man of the household worked while the mother and wife stayed at home, now we are in a society of dual-income households. Additionally, years ago the majority of people worked locally; now a 1-1 ½ hour commute one-way is not uncommon. When you combine family time along with activities for the children, households today do not have the time they once had to dedicate to volunteer service in the local fire department.

In years past, people stayed in the communities where they were born and had an interest in being a part of the fire department. Many times, it was a generational interest with two or three generations serving at the same time. In past decades, more young people stayed locally and worked locally in or around their hometown, while today's young people are moving away to be closer to where they work or to find higher paying jobs.

With this exodus from rural life comes a much smaller and older population of people to tap for volunteer service. And volunteer fire departments are detrimentally feeling the crunch as they attempt to recruit and retain new members. On weekdays, it's difficult to find one or two members of a department able to respond to a call because everyone is at work.

Because the National Fire Protection Association based its small-town numbers on communities with a population of less than 2,500 people, I am using my hometown of Hanceville, Alabama, as my example department in this series of articles. Hanceville has a population of around 3,000 and the fire depart-

(Continued on page 12)

Alabama's Rural Communities Experiencing Critical Shortage in Volunteer Firefighters

(Continued from page 11)

ment is predominately volunteer. Although it has a paid chief, assistant chief, and two full-time firefighters, the remainder of their slim force is made up of volunteers.

According to Hanceville Mayor Kenneth Nail, who served 20 years in the department as a firefighter and EMT, it's not uncommon to have only one or two people be able to respond to a fire during the week. He recalled that once when another local department had a call, dispatch had to tone out the fourth fire department before they found someone that could respond. "It's starting to be a public safety emergency," Nail said. "Departments are struggling."

In order to help ease the lack of firefighters, Hanceville has sent its police department through basic fire training to be able to reinforce the fire department when needed.

Firefighters are Aging Out

Rural communities today have a much older population than they once did, and lack of economic growth and jobs are not helping to retain or draw the younger population. Once older members retire from the volunteer fire service, they're not being replaced because of the difficulty in finding potential members willing to make the commitment.

According to the National Fire Protection Association, in communities with populations of 2,500 or less, 53 percent of firefighters are over the age of 40, and 32 percent are over the age of 50. It's not uncommon for departments to have members in their 60s and 70s. This has been the trend for years in small community departments.

Time and Work Increase Workload

Along with being older, volunteers are answering more calls than ever before. When fire departments were first established, their primary function was structure protection. Now a department is not only responsible for structures, they also deal with most medical emergencies, hazmat incidents, search and rescue, natural disasters, water rescues, and a host of other things.

Mayor Nail reported that last year Hanceville Fire and Rescue responded to 1,301 calls with one paid firefighter per 24-hour shift. "During the month of January this year we had 145 calls," he explained. "That's the most calls we have ever had in a month."

In many instances, pressure is placed on rural departments by local agencies because they are seen as a source of free labor such as directing traffic at accident scenes, removing limbs from roads, and any other job that is needed but no one else wants to or has time to do. According to the National Fire Protection Association, volunteer firefighters contribute about $140 billion worth of labor each year to their communities.

In most rural areas, the fire department is the closest and first response for medical calls, which in many jurisdictions comprise as much as 90-95 percent of service calls. Some information indicates that the number of medical calls has tripled in the past few decades.

And then there is the time spent on equipment maintenance, training, paperwork, and fundraising.

Once many recruits realize the amount of time they must put in for a 'volunteer' job, they are reluctant to commit to the department. With all these demands for time, even when departments are successful in recruiting younger members, many do not stay in the fire service because of the dedication and commitment that is required.

Training Requirements

Just because a fire department is 'volunteer' does not mean that you are getting a lesser quality of service. Volunteer departments still operate like paid departments, and they are governed and graded by the same set of guidelines and regulations as full-time paid departments. In the area of training, volunteer departments must also meet the same requirements that full-time paid departments meet.

This training for volunteer departments is the same as paid departments both in subject matter and in number of hours required. Firefighters must not only complete all areas of basic training, but they must also complete annual continuing education courses in order to keep their certification as a firefighter. Then there is the training in all other disciplines such as hazardous materials, search and rescue, water rescue, and the long list goes on. The amount of training a department has directly impacts homeowner and business insurance premiums.

In many cases, the extensive training required is discouraging to potential recruits, and they either do not commit up front, or they drop out during training.

The impact on local communities

The lack of volunteer firefighters is at or very near a crisis level in many rural communities. Unless departments can recruit new members, stations may shut down. Ultimately, homeowners and businesses will be the ones paying the price through higher premiums for insurance. It will also become harder and harder to entice new businesses and industry into a community because of the lack of or expensive fire protection and other emergency services.

Watch for the Summer 2020 issue of Alabama's TREASURED Forests magazine for the final story in this series on the rural volunteer firefighter crisis in our state.

Where did all the wildfires go?

By John Goff, Registered Forester, Forest Protection Division Director, Alabama Forestry Commission

Wildfires have definitely taken a couple of twists and turns in the past 100 years, but where did they go? Why are there fewer wildfires today than in the old days? Many things have changed influencing the actual definition of 'wildfires' – Smokey Bear is the first to come to mind, with prescribed fire the second. I don't have all the answers, and at the end of this article, I may leave you with more questions than answers . . . you can draw your own conclusions!

To get us started, here are a couple past decade averages of 'Wildfire Numbers' that I pulled from the Alabama Forestry Commission archives:

- **The 1940s averaged 7,010 wildfires burning 297,839 acres annually.**
- **The 1970s averaged 6,468 wildfires burning 149,614 acres annually.**

In a span of 40 years, the occurrences stayed roughly the same, but the acres dropped by half! I think this could be contributed to better, more reliable equipment. I would suspect the '40s witnessed firefighters switching from riding horseback and using hand flaps, to riding deer – "Poppin' John" Deere gas-burner dozers. These dozers would have been equipped with a fire plow and no blade . . . a huge upgrade from the flap! Although many of our rangers quickly outfitted them with a railroad iron to act as a push bar on the front.

By the end of the '70s, dozers were much quicker, the trucks that haul them were quicker, and the roads on which we traveled were better. Maybe these are the reasons for having the same number of ignitions with half the acres burned? This is also around the time that prescribed burning began to be more accepted and was not perceived as 'all fire is bad fire.' However, Smokey didn't change his tune for another 30 years! Now let's look at more recent decades.

- **The 1990s averaged 4,555 wildfires for 45,010 acres annually.**
- **In the last ten years, we averaged 2,226 wildfires for 28,600 acres annually.**

Wow, now that's a big change. Why? Volunteer fire departments (VFDs) were beginning to be established with the help of the AFC in the early '80s, and most were up and running all across the state by the end of the decade. VFDs were and still are a huge piece of the wildfire puzzle that we are trying to answer. Alabama's VFDs respond to many more ignitions today than the AFC does, sometimes as much as by three-fold. If you take the AFC's average number of wildfires per year and add it to the VFD number, you would come very close to the number of wildfires we saw in the '40s through the '70s.

Also in the '80s, the primary mode of wildfire detection was transitioning from manning a fire tower to small single engine aircraft. Maybe this method was more efficient, allowing the AFC to suppress fires much quicker than ever before. Partner VFDs with the AFC, plus aerial reconnaissance for wildfires, and you have a firefighting force to be reckoned with!

An interesting note, one of the last fire towers to be manned was the historic Flagg Mountain tower in Coosa County Alabama. If you have never been there, you should make plans to go!

We have explained the missing occurrences, but this still doesn't account for the acres that are missing. Yes, we respond to wildfires faster than ever before, equipment is more efficient, and now everyone has cell phones! Cell phones are better than any plane or fire tower could ever hope to be. Everything gets reported now and reported very quickly. Wildfires no longer grow in size for long periods of time before they are reported. Small fires are cheaper and easier to suppress, which is great for both the AFC and VFDs.

In between the '90s and the last 10 years, Smokey Bear changed his message, making the suggestion that not all fires are actually bad! In 2001, his slogan was changed from "only you can prevent forest fires" to "only you can prevent wildfires." Prescribed burning has really come to the forefront in the last few decades as being an important and cost-effective tool that is critical to Alabama's native ecosystem. In fact, many of Alabama's endangered species have a direct link to being listed as endangered with the lack of fire on the landscape. On average, the AFC permits close to 12,000 prescribed fires for approximately 1,000,000 acres every year. I would even argue that some of the 'wildfire' acres in the '40s have been shifted to prescribed fire acres in recent times.

Humans have a strong connection to fire, its undeniable. Just place a bunch of kids and adults around a campfire and see what happens. There is and always will be the need for fire on the landscape, so we must ensure that we maintain our right to burn. This is a concept that has come into question in many other states.

In summary, where did all the wildfires go? I don't think you can put your finger on any one thing, and maybe, just maybe, we have as much fire on the landscape as we did in the '40s. Perhaps it is simply the definition of that fire that has changed. Along with Smokey Bear and other partners such as the Alabama Prescribed Fire Council, the Alabama Department of Conservation & Natural Resources, and the National Forests in Alabama, we can continue to grow the prescribed fire numbers into the future!

Alabama's WATER Resources

By Dr. Eve Brantley, Professor and Extension Specialist, Auburn University | Alabama Cooperative Extension System

Do you remember the first time you searched a creek for crayfish, swam in a river, skipped stones across a lake, or chased the Gulf waves? Chances are you've had a lot of opportunity to explore the more than 132,000 miles of rivers and streams in Alabama. As you travel across the state, notice that it's never very far between seeing a creek, river, or wetland. This network of water resources provides recreation, drinking water, power generation, and industry for the state, while also boasting the most freshwater fish diversity in the country. Although the link between forestry and clean water may not be obvious, Alabama's forests play an important role in the long-term protection of water resources.

Forested Watersheds and Healthy Waters

Two of every three drops of rain that fall in Alabama land on a forest. Rain drops in a forested watershed either infiltrate into the soil, return to the air (evaporation or transpiration), or travel over the surface of the land as runoff. A watershed is the area of land that contributes water to a water body such as a stream, river, pond, lake, or bay. Watersheds are nature's boundary lines where, for example, rain falling on one side of a ridge may flow to the Tallapoosa River watershed, and the other side of the ridge delivers water to the Coosa River watershed.

A forested watershed provides layered benefits to Alabama's waterways, including allowing for a more natural water cycle. Compared with urban and suburban watersheds, forests allow for *more infiltration* and *less runoff*. The higher rates of water percolating into the soil means that water is more slowly transported to a stream as overland flow and as subsurface recharge. In contrast, the land cover in urban and suburban watersheds includes parking lots, roof tops, roads and other impervious surfaces. Impervious surfaces limit water infiltration and result in more runoff that frequently carries pollutants such as oils, gas, fertilizers, bacteria, and litter. Plus, the increased amount of runoff in urban and suburban areas causes increased streambank erosion that results in poor stream habitat as well as concerns for property loss and infrastructure damage.

Trees and other plants growing along streams and rivers have important roles in stream and river health. The shade provided by streamside forests keeps water temperatures cooler. Cooler water has the ability to contain higher dissolved oxygen levels than warm water. Dissolved oxygen is critical for fish and stream macroinvertebrates which are insects, crustaceans, mussels, and more that start their life in a stream (such as dragonflies), spend much of their life in a stream (such as crayfish) or all of their adult life in a stream (such as mussels).

Leaves are another critical contribution of streamside forests. Stream life depends on the leaf litter that falls into the water as the very beginning of the food web. Leaves, twigs, and stems serve up organic material eaten by microbes that are consumed by insects, snails, and other macroinvertebrates, which are the food source for some fish. Not all leaves are created equal. The quality and amount of native plant leaves in a streamside forest has a balance with the critters in the creek. Invasive plants growing along streams may provide leaves, but their leaves may decompose too fast to be useful or not be as palatable in the food web.

Oftentimes, the forests along streams and rivers are unique habitats for plants and animals. Wildlife will use the forests as corridors that supply food, habitat, and water. Stems of trees, shrubs, and herbaceous cover help to slow runoff and trap sediment before it reaches a stream. Floodplain forests may experience periods of flooding that help to recharge groundwater and protect downstream communities from flooding. There's a lot of underground work going on in a streamside forest, too. Plant roots stabilize streambanks and help to strengthen the soil and resist erosion. Roots will many times grow into and along waterways providing unique habitat for fish and macroinvertebrates. Microbial activity in streamside forests has the ability to transform pollutants into less harmful forms.

Taking Action

Losing streamside forests can result in increased water temperatures, decreased dissolved oxygen, higher threat of erosion, as well as degraded water quality and habitat quality through the introduction of pollutants to waterways. However, forestry best management practices such as streamside management zones, or SMZs, protect the functions of streamside forests while allowing for timber harvest. It's important to educate non-forestry landowners on management practices such as SMZs that are implemented to protect streams and promote resilient systems. Knowing more about the importance of streamside forests for healthy stream and river systems helps when describing the purposeful management of SMZs and other best management practices. Check out the Alabama Forestry Commission's Management Measures web page for more information on water quality protective practices: **www.forestry.alabama.gov/Pages/Management/BMP_Measures.aspx**

If you are interested in removing invasive species along streams and rivers and replanting native plants, there are several guides that may be valuable to you including the US Forest Service, "Nonnative invasive plants of southern forests: a field guide," and "A Management Guide for Invasive Plants in Southern Forests." These are available online at **www.srs.fs.usda.gov/pubs/gtr/gtr_srs062/** and **www.srs.fs.fed.us/pubs/gtr/gtr_srs131.pdf,** respectively.

The next time you are fishing, taking a boat ride, swimming, or enjoying a hike along a waterway, take a look up and down to appreciate the role forested watersheds play not only in protecting water quality but also in providing for healthy plant and animal habitat.

Photos By Dr. Eve Brantley, Alabama Cooperative Extension System

Turkey Population Trends in Alabama

By Steven W. Barnett, Certified Wildlife Biologist, Alabama Division of Wildlife and Freshwater Fisheries

The gobble and drum of a wild turkey stirs emotions in turkey hunters that are difficult to describe. Few other sounds in nature exude wildness. The exhilaration during a hunt intensifies as gobble and drum volumes increase, marking the approach of the spring woods monarch. And if all goes as planned, this anticipation is breached by the spectacle of a gobbler in full strut. For those who have a passion for the wary wild turkey, spring mornings without turkeys would be undesirable.

In the early 1900s wild turkeys were rare or nonexistent in most of Alabama. With a population estimated to be as low as 10,000, there were many undesirable spring mornings. These alarming conditions prompted landowners, hunters, and other conservationists in the state to advocate for and support protection and restoration of wild turkeys. Alabama's efforts were part of a larger nationwide conservation movement known as the North American Model for Wildlife Conservation. Hunters were among the first to crusade for limits and assume responsibility for the stewardship of natural resources. Restocking efforts in Alabama bolstered the wild turkey population from the abyss to levels considered stable enough to support huntable populations today.

Even though turkey numbers in the state have been good for many years, more recently there has been growing concern among biologists in the Southeast that turkey reproduction and populations are declining based on observational data. The Division of Wildlife & Freshwater Fisheries (WFF) has ramped up efforts to measure wild turkey populations more precisely. Some of the work involves a standardized approach using game cameras to provide an index to productivity. These efforts have been focused on gaining a better understanding of nesting chronology as well as juvenile and adult survival. In 2010, WFF staff began performing observational brood surveys statewide. Observers record the numbers of hens and poults seen in July and August. From these observations, the number of poults per hen is determined. This data provides information on production and recruitment which can be used as an index to trends in population growth. Even though this method does not meet scientific rigor, it does reveal observational changes in numbers seen at a regional scale.

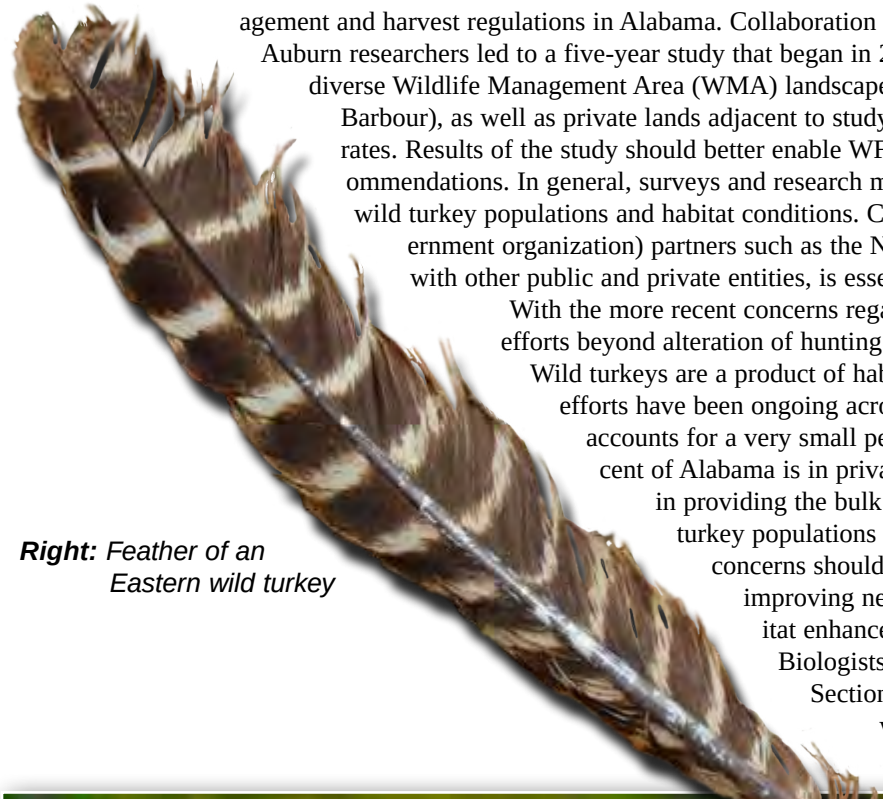
Trend data from 2010 to 2019 has revealed a .92 percent decrease in broods (poults per hens with poults) accounting for about an 8 percent overall statewide decline for the last ten years. The most important measure of productivity is the number of all hens including hens with no poults. Hens that do not nest or are unsuccessful drive down the potential of population growth, and observational data has seen a decline in poults per hen statewide.

To improve statewide representation, we have partnered with hunters to bolster our collection efforts and sample sizes. In 2014, WFF launched the Avid Turkey Hunter Survey that offers avid turkey hunters the opportunity to report their hunts, harvests, and gobbling activity. Avid turkey hunter participants and brood survey participants now have the convenience to report data online. The results of these surveys are reported in our annual wild turkey report, Full Fans & Sharp Spurs.

In 2014, WFF partnered with Auburn University to follow a structured decision-making process to address wild turkey man-

agement and harvest regulations in Alabama. Collaboration between the WFF Wild Turkey Committee and Auburn researchers led to a five-year study that began in 2015 to trap and radio-mark wild turkeys on three diverse Wildlife Management Area (WMA) landscapes (James D. Martin-Skyline, Oakmulgee, and Barbour), as well as private lands adjacent to study sites to look at reproduction, survival, and harvest rates. Results of the study should better enable WFF to make more informed season and bag limit recommendations. In general, surveys and research must be ongoing to stay current with ever-changing wild turkey populations and habitat conditions. Collaboration with universities and NGO (non-government organization) partners such as the National Wild Turkey Federation (NWTF), along with other public and private entities, is essential for success.

With the more recent concerns regarding turkey population declines, management efforts beyond alteration of hunting season frameworks and regulations are needed. Wild turkeys are a product of habitat quality, and although habitat management efforts have been ongoing across all WFF properties for many years, public land accounts for a very small percentage of the Alabama landscape. Over 93 percent of Alabama is in private landholdings, and landowners play a pivotal role in providing the bulk of quality habitat needed to support sustainable turkey populations statewide. Landowners with local turkey population concerns should focus on annual habitat needs with an emphasis on improving nesting and brood habitat. Recommendations for habitat enhancement are offered by WFF Technical Assistance Biologists. To schedule an on-site visit, contact the Wildlife Section at (334) 242-3469 and we will put you in contact with your regional biologist.



Right: *Feather of an Eastern wild turkey*

Photo courtesy of the National Wild Turkey Federation

Photo courtesy of the National Wild Turkey Federation

Photo by Rob Routledge, Sault College, Bugwood.org

Above: *A male Eastern wild turkey in the act of audibly drumming or 'gobbling' across an open pasture.*

Left: *An adult male turkey demonstrates a full strut pose.*

AFC PARTNERING WITH THE NATIONAL WILD TURKEY FEDERATION

NWTF
Conserve. Hunt. Share.

By Joel Bartlett, Marion County Forestry Specialist, Alabama Forestry Commission and John Goff, Registered Forester, Forest Protection Division Director, Alabama Forestry Commission

The Alabama Forestry Commission and the National Wild Turkey Federation (NWTF) are two key leaders of wildlife and forest conservation here in the great state of Alabama. A nationally known organization, the NWTF was established in 1973 for the conservation and preservation of the wild turkey. Through tremendous efforts they have facilitated the investment of $488 million in wildlife conservation and preservation of the North American hunting heritage by improving more than 17 million acres of wildlife habitat.

For every $1 spent, $4.5 were contributed toward the mission of the NWTF in Alabama. This funding was leveraged through partner match of federal agencies, the Pittman Robertson Act, state agency acquisition funds, other organizations, private funds, grants, and agreements. Such funds help support NWTF Super Fund Projects across the state, but not all monies are used each year. It depends on the number of requests and the size of each project submitted to the state committee. The Alabama Forestry Commission (AFC) has been working closely with the NWTF on several different projects ranging from acquiring new prescribed burn equipment and tools for fighting wildfires, to wildland disks outfitted for AFC dozers.

The purchase of wildland disks is a new endeavor for the AFC. A few of the agency's 'outside-the-box' thinking rangers came up with the idea that it would be a good service to disk landowners' property at a reduced rate every year or every other year. This could be done in contrast to cleaning out firebreaks every three to five years by blading with a dozer, which is costly from a per-hour standpoint. The rate for disking is a minimum of $200 for the first 1.5 hours, and then the hourly rate of $90 per hour after that. However, most disking jobs should be able to be completed in that first 1.5 hrs. Contrast that to the agency's minimum charge for standard dozer (blading) work which is $400, and most tracks will take from 4-8 hours to complete. This adds up to much more money than the disking option.

The AFC did its homework by going east to observe neighboring agency, the Georgia Forestry Commission. They have a very robust disking program, after which the AFC is tailoring its program. It is hopeful that the AFC's disking program will give Alabama landowners a cheaper option to maintain their fire breaks, which in most cases is the costliest and most limiting factor in conducting prescribed burns.

If you are interested in the Alabama Forestry Commission's disking services, please call your local county AFC office for more information.

Pulling a disk with a dozer is quicker and cheaper than blading a line with a dozer. For example: On a 40-acre tract with fire breaks already installed, there would be one mile of lines. It should only take the minimum rate to disk around the stand or $200. On that same stand, using a dozer to blade the line will take at least half a day or the minimum charge of $400.

Alabama's Wood-based Industry & Workforce Development

By Gary Faulkner, Economic Development Specialist, Alabama Forestry Commission, and Ashley Watts Rowe, Workforce Development Coordinator, Alabama Forestry Association

It is difficult to overstate how crucial workforce development is to a state's economic health. Research by the Alabama Workforce Council's ''Success Plus" initiative recommends hiring 500,000 high skilled employees to the workforce by 2025. Wood-based industries are a significant component of Alabama's workforce. Despite productive timberland management that yields subsequent large inventory surplus, available site locations, and a positive market economy, a lack of skilled workforce can be an impediment for retaining, expanding, and attracting wood-based manufacturing opportunities.

Source: Alabama Works!, Success +, *Preparing Alabama's Workforce For Opportunity & Growth.*

How important is Alabama's forest industry? The state's wood-based sector has achieved a national industrial footprint as second in pulp production, second in paper & paperboard, third in lumber, and sixth in wood panel production. Further, it is estimated that Alabama's wood-based job concentration is 2.55 times the national concentrations. Therefore, workforce development is critically important for the sustainment of Alabama's economic landscape for wood-based manufacturing.

Threats

Alabama's overall job growth is projected to be faster than its labor force growth. Workforce development has become a priority in the sustainability and growth of our economic manufacturing sector.

Workforce development is also a top site selection factor and incentive for locating and expanding economic development projects. During site selection, verification of an available and qualified workforce is always a critical component in 'winning' the competition for projects within the intense economic development recruitment environment. More importantly, qualified workforce availability is essential for expansions as most job creations originate from the existing industry.

The combination of historic low unemployment rates (full employment) and a competitive business climate, coupled with outstanding and historic announcements within Alabama's economy, workforce development is a critical aspect of sustainable growth, and for the state's most important rural manufacturing contributor – forest industry. In context, there are approximately 43,000 direct wood-based jobs located throughout the state of Alabama. Within the period of 2016–2018, Alabama's forest industry announced the creation of an astonishing 4,444 jobs via $3.78 billion in capital investment. With these announcements, additional pressure has been applied to recruit and employ additional qualified and skilled workforce.

Wood-based industry employment is considered an essential economic industrial sector embedded in countless southern rural and metropolitan communities – it is rural development for Alabama. Therefore, every workforce asset in the forestry industry supply chain is important for its sustainability.

(Continued on page 20)

Area Development: 34th Annual Corporate Survey 2019 Site Selection Factors

2019 Site Selection Factors
34th Annual Corporate Survey - Area Development

1. Highway Accessibility....92.3
2. Availability of Skilled Labor....92.4
3. Labor Costs....87.1
4. Quality of Life....82.2
5. Occupancy or Construction costs....80.3
6. Corporate Tax Rate....79.7
7. Energy availability and costs....79.5
8. Tax Exemptions 75.5
9. Environmental Regulations....73.0
10. Proximity to Major Markets....72.6

Source: Area Development Magazine, www.areadevelopment.com

Alabama's Wood-based Industry & Workforce Development

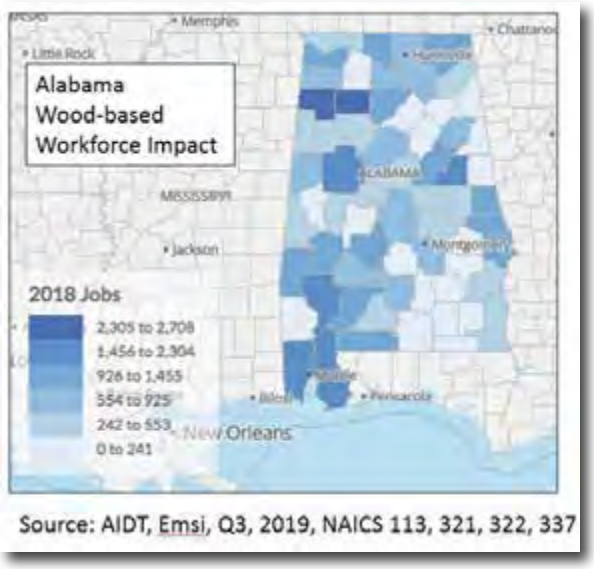
(Continued from page 19)

COVID-19 Impact

Throughout our country's relatively short history, America has suffered through many calamities. These include natural disasters, wars, pandemics, among others. Currently, the United States is battling the spread and impacts of COVID-19. This sudden and deadly assault on our national and global population has caused severe health and economic hardships. Federal, local, state, city, and private sectors have engaged to abate and ultimately defeat this pandemic.

The U.S. Department of Homeland Security has declared the wood products industry as an "essential critical infrastructure workforce." At the time of this writing, the impact of coronavirus on the wood products industry and the national economy in general is unknown. Key indicators of the economy affecting our industry will include unemployment rates and housing starts, among others. These indicators are expected to be negatively affected in the short term. Consequently, the wood-based supply chain will have unknown disruptions. Healthy and employed citizens are our nation's assets.

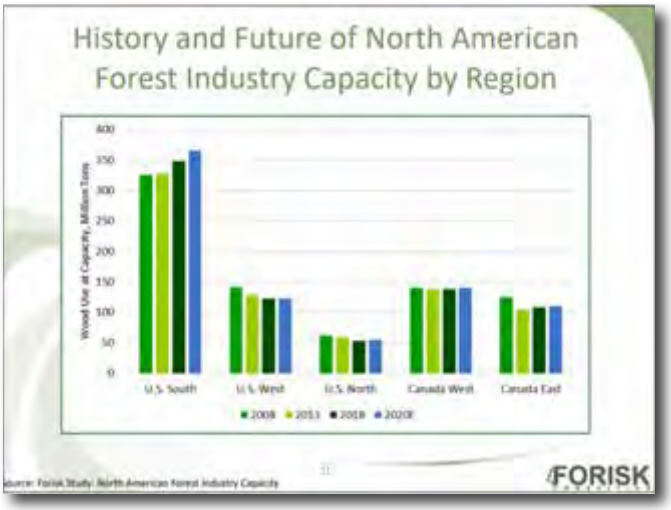
As workforce is interrupted during this pandemic, workforce development will be a continued key for recharging our economy. We are confident that the United States will weather this storm and exit the turmoil with a prosperous economy.



Why Forestry?

The forest industry in the U.S. South needs workers. It needs individuals who are passionate about the outdoors, passionate about sustainability, and passionate about their careers. Some of rural America's highest paid jobs are in forestry and the forest product manufacturing sector. South's largest regional industrial manufacturing sectors in the U.S.

In Alabama, the majority of that workforce is over 54 years old – and there isn't currently a large enough group of qualified



workers to take their place. As example, the logging sector is losing workers at a significant percentage, although being offset by operational efficiencies, and is a critical link in the supply chain. Without qualified employees ready to take the place of those retiring in the next several years, hundreds of jobs will remain unfilled within the southern U.S. This situation could affect production, subsequently disrupting local rural economies. Alabama, located in the geographical heart of the U.S. South, is taking proactive steps to alleviate this issue.

The Solution

Alabama is blessed with innovative leaders who have facilitated an effective strategy for workforce development solutions. And to their credit, there is not just one solution – but many. For example, the Alabama Department of Commerce Workforce Development Division is dedicated to assisting the growth of Alabama businesses and the workers that sustain their operations. The Division has five areas of responsibility: AIDT, WIOA, AWC, RWCs, and AOA. To Learn More, Click Made in Alabama at – **www.madeinalabama.com/workforce-and-training/**

- **AIDT** (Alabama Industrial Development Training) is Alabama's premier workforce training incentive that offers job-specific training to new and expanding industries in Alabama and expands job opportunities of its citizens.
- **WIOA** (Workforce Innovation Opportunity Act) is a federal program used to help socially and economically disadvantaged populations and dislocated workers.
- **AWC** (Alabama Workforce Council) is an advisory council whose main mission is to facilitate the strategic workforce agenda across Alabama.
- **RWCs** (Regional Workforce Councils) focus their attention on a more local level and serve as a network of interconnected providers of a central hub for certifying and managing apprenticeships here in Alabama.

- **AOA** (Alabama Office of Apprenticeship) is a state apprenticeship program that serves as the central hub for certifying and managing apprenticeships in Alabama.

Besides the Alabama Department of Commerce, there are other programs offered within the state such as the Alabama Community College System (ACCS) which proudly partners with *AlabamaWorks!*, AIDT, Alabama Automotive Manufacturers Association, Manufacturing Skills Standard Council, and several industry leaders and other state entities. The ACCS provides a wide array of education and training programs that result in several levels of credentials. To learn more, click Alabama Community College System at **www.accs.edu/**

A Unique Approach

Alabama is also meeting the workforce development challenge for our wood-based industry with a unique, progressive, and successful initiative that is changing the opportunities for our state's forestry sector – *Forestry Works!* The initiative is a collaborative effort by the Forestry Workforce Training Institute (FWTI) and other partners within the forest industry to develop a pipeline of qualified workers for the logging and wood product manufacturing industries. The program educates students, parents, and teachers about careers and job opportunities in the forest industry and provides interested students with resources to help them along their career path.

It is FWTI's mission to provide the next generation with resources, skills, and guidance to join the forestry and wood products manufacturing workforce. The hardest jobs to fill in the forest industry are truck drivers, maintenance technicians, saw filers, equipment operators, and electricians. A little-known fact is that only one out of three parents would encourage their child to pursue a career in the trades. However, the forest products employees take home an average of $22 per hour or about $46,000 annually. To learn more, click *Forestry Works!* at **www.forestryworks.com/**

By partnering with education and private business within Alabama and the Southeast's forest industry, FWTI cultivates careers, builds communities, and stimulates local economies. The *Forestry Works!* program impacted 14,398 individuals in 2018, with a total of 39,539 individuals for the project initiative to date. The FWTI provides continuing projects for logging equipment operator school, forest worker Career Readiness Indicator (CRI) program, career fair outreach, and log truck driver recruitment campaign. Further, projects in development include maintenance technician CRI program, log truck driver certification program, forest worker apprenticeship program, and a multi-state workforce development model.

Early Intervention is Key

Recruitment of youth into the forest industry has been difficult, due to two main issues: lack of early education about job opportunities in the forest industry, and public misconception of skilled labor positions as 'dirty jobs' that are not as ideal as a professional position that may require a four-year college degree or more. Education professionals play a key role in recruitment. Subsequently, the Alabama Forestry Commission and the Alabama Forestry Association work cooperatively in various programs for young adults to educate future generational assets. These initiatives include forestry career days (high school), FAWN (Forestry Awareness Week Now) involving 6th graders, Natural Resources Camps (6th graders), and Project Learning Tree, among other education programs

Summary

Workforce development is critical to the sustainability of Alabama's economy and manufacturing sector – particularly for our forest industry. There is a workforce shortage recognized throughout the nation and the South. Alabama has recognized the need to recruit additional qualified and skilled workers for our manufacturing sector and is ushering in new, exciting, and effective initiatives.

Our state has a significant wood-based workforce supporting rural Alabama communities, and the industry continues to expand. The *Forestry Works!* initiative has been a successful model for effecting and attracting workers for Alabama's wood-based industry. Early intervention is the key. Alabama citizens are our greatest economic development asset.

The Mystery of the Dead Loblollies

By Steven Jones, Registered Forester
Calhoun County Forestry Management Specialist,
Alabama Forestry Commission

It was just a typical day at the office when I got a call from a forest landowner in the county. He was concerned about trees which were randomly dying throughout his loblolly pine plantation. We talked awhile and he said he it looked as if some type of insect was attacking his trees.

The landowner related, "Something is girdling my trees at ground level. What type of bug will do that?" After running that question through my head for a minute, I told him that I didn't know of any insects that would girdle a tree in that way. We decided it would probably be best if I made a sight visit to see exactly what we were dealing with.

The next day I drove to the landowner's property located in Ohatchee, Alabama. The subject area was approximately a 15-acre loblolly plantation that was six years old, and the dead trees were obvious at a glance. We walked out into the planted pines to get a better look at the damage, and to determine if I could identify any signs or symptoms of the problem. At this point, I was still trying to process all of the potential causes of the issue.

As we made our way to the first dead pine, the landowner pointed out the girdling damage. We surveyed several more trees with similar injury. On every dead tree, about the first 6 to 8 inches of bark were completely gone. I immediately confirmed that it was not insect damage.

Girdling damage to a young pine stand.

When I got down to ground level to take a closer look at the damage, it appeared as if something was chewing the bark away from the trees. After viewing the damage on several trees, my gut instinct was telling me the answer to the puzzle. I said to the landowner, "I know this sounds crazy, but I believe this damage is caused by rabbits!"

Giving me a funny look, all he managed to say was, "Really?" As we discussed my theory I tried to explain why and how I came to this conclusion. I had ruled out everything possible due to location, visual damage, and potential pests in the area. To be 100 percent positive about it, I assured the landowner I would confirm my suspicions with some of my former professors at Auburn University School of Forestry & Wildlife Sciences.

AFC Calhoun County Forester Steven Jones confirmed his suspicions with forestry professors at Auburn University, who all agreed to the small mammal damage.

Once I returned to the office, I emailed Auburn for a confirmation of the findings. I supplied the forestry professors with a general overview of what I had found, along with several pictures of the damage. In a short time, I received replies from both professors. They responded with a few more possibilities for the source of the damage in addition to rabbit: beaver, porcupine, or vole. Again, I ruled out the first two animals because of the location, just as in my first evaluation. Next, we ruled out vole or mice damage due to the size of the trees in question. This evidence led us all to the conclusion that the culprit had to be the cottontail rabbit.

While this pine plantation had been sprayed for replanting, it did not have a site prep burn to eliminate the residual slash. This action resulted in plenty of cover and brush for the rabbits to take up shelter. Additionally, the plantation bordered a large cattle farm which provided many acres of forage for the rabbits. All in all, this forested area was apparently rabbit paradise, having all the perfect components to sustain a booming population.

With great confidence in the findings and the collaboration with Auburn, I relayed this information back to the landowner. Now however, he wanted a solution to the problem. First, I mentioned prescribed burning to reduce ground cover, but due to the unknown amount of slash left onsite, I honestly did not feel comfortable with this option. I feared that it might generate too much heat for the trees to sustain, so we moved on to the next option.

One of the professors at Auburn had mentioned improving predator numbers such as coyote, hawks, or owls, but this action would be too complicated, and was probably not a good idea so close to a working cattle farm.

Finally, I told the landowner that his best option to control his problem was to round up some of his hunting buddies and have a good old-fashioned southern rabbit hunt. He replied, "That sounds like a good idea. I believe I'll do just that. Thank you for your time and efforts!"

After working with the Forestry Commission for almost 12 years now, I can say I have seen a lot of new and interesting things, but this was definitely a first. That's one of the great things about being able to work outside and interact with local landowners . . . every day is a new adventure.

Cogongrass

By Jessie McDonald,
Walker County Forestry Specialist

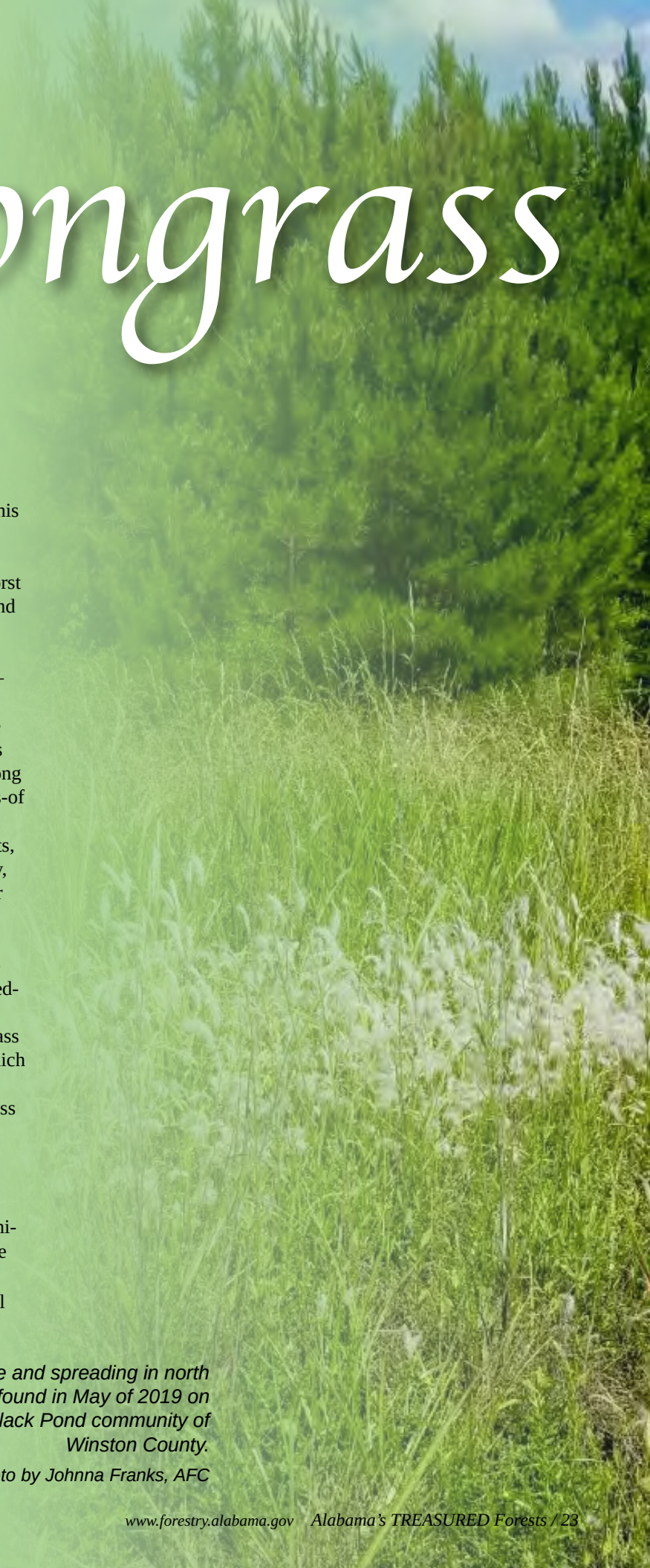
It's that time of year again in Alabama when you see this fluffy, silvery seed head swaying in the wind as you drive down country roads. You wonder, what kind of grass is that? Well, it just happens to be one of the worst non-native, invasive perennial grasses found in Alabama and across the Southeast.

Originally from southeast Asia, cogongrass (*Imperata cylindrica*) first appeared around 1912 in the Mobile area – an escapee from a packing crate – and has made its way across most counties of Alabama by 'hitchhiking.' A single plant can produce 3,000 seeds. These wind-dispersed seeds have been aided by catching rides on vehicles traveling along highways, road maintenance and equipment mowing rights-of way, and even storm events. Cogongrass usually occurs in non-cultivated sites including pastures, fallow fields, forests, along highways or natural areas, as well as electrical utility, pipeline, and railroad rights-of-way. Often forming circular infestations, it thrives in fine sand to heavy clay and does well on soils of low fertility.

Cogongrass is a very aggressive species, capable of disrupting ecosystems and reducing wildlife habitats. Tree seedlings also have difficulty regenerating due to the growth habits of this noxious weed. Additionally, stands of this grass are highly flammable, creating a severe wildfire hazard which burns extremely hot, thus altering fire regimes.

Attempts at finding a natural pest to eliminate cogongrass have met with limited success. Cultivation and herbicides have been the two control strategies used most often. Although tillage and herbicides provide some control and suppression, long-term eradication is seldom achieved. An integrated approach that combines burning, tillage (mechanical disturbance), and chemical applications seem to provide the best solution for cogongrass management.

If you see this unwanted weed, please contact your local Alabama Forestry Commission office with the location.



Cogongrass is alive and spreading in north Alabama. This spot was found in May of 2019 on private property in the Black Pond community of Winston County.

Photo by Johnna Franks, AFC

URBAN & COMMUNITY FORESTRY & the AFC

By Katie Wiswall, Urban & Community Forestry Partnership Coordinator, Alabama Forestry Commission

What is Urban & Community Forestry?

Within the Alabama Forestry Commission, Urban & Community Forestry (often called U&CF) is the program responsible for protecting and promoting trees and green spaces in areas where most people live, work, and play. Although the agency's program is only staffed by two people, urban forestry activities are performed by all AFC employees across the state. These activities include events for Alabama's Arbor Week, confirmation and recruitment of Tree City USA applicants, arboricultural training for municipalities, and administration of urban forestry grants.

The U&CF program also includes the Urban Forest Strike Team that provides rapid, post-disaster response to assess the condition of trees still standing after a disaster and begins to quickly facilitate recovery efforts.

The Urban Forest Strike Team deployed to Jacksonville State University after the March 2018 tornadoes devastated its campus.

Why does the AFC promote urban forestry?

The Alabama Forestry Commission is tasked with protecting forests in the state, assisting landowners in properly managing their forestlands, and educating people about those forests. This mandate includes ALL forests in the state, both rural and community.

Community forests are increasing in Alabama and across the nation. This is not necessarily because we are adding great numbers of trees to our communities, but rather because our communities are spreading out and encompassing more and more land with trees on it. For most of us, wherever we live, there are trees. These trees need care and attention so they can continue to provide us with the maximum benefit with a minimum of 'fuss.'

So exactly what IS urban forestry?

According to the Society of American Foresters' *Forestry Handbook*, urban forestry is defined as "the management of publicly and privately-owned lands in and adjacent to urban areas." However, urban forestry also involves planning the placement of trees on those lands and teaching people about their importance. Additionally, it involves trees in communities of every size. Thus, we usually refer to "urban *and* community forestry" or just "community forestry." Not everyone lives in a city, but each of us lives in a community, and managing the trees in that community is urban forestry.

How is community forestry different from 'traditional' forestry?

As with rural forests, community forests can be managed for multiple benefits. However, there are two very different aspects of the community forest that require a novel approach to their management. The first difference is ownership. A traditional forest is generally owned by one person or one family. With the community forest, there are as many owners as there are people in the community PLUS the town council, and perhaps shopkeepers, utility companies, and a school board.

All these individuals own some piece of the community forest and they may have differing goals and plans for their trees. Thus, decision-making becomes a much more collaborative process than with the traditional family forest. This need for collaboration results in the second big difference between managing a traditional forest and a community forest. The community forest is usually managed tree by tree, rather than acre by acre. We can often truly not see the forest for the trees. In the case of the urban forest, that is just fine.

Opposite: *A Choctaw County tree distribution event from March 5. Pictured with participants are AFC Marengo County Forestry Specialist Jim Dixon, Choctaw County Forestry Specialist Allan Johnson, and Choctaw County Forest Ranger Lemoral Coleman.*

Right: *Benefits to a homeowner of a 10" silver maple.*

How important is Alabama's urban forest?

While most people are aware that trees provide oxygen and shade that can reduce our utility bills, many do not realize that the presence of trees on school campuses can improve test scores, reduce stress levels, and increase the ability to concentrate. Nor are they aware that similar results are found with hospital patients. Those in rooms with a view of trees tend to recover more quickly than those with no view of trees.

On our streets, trees not only lower the ambient temperature, they encourage shoppers to spend more time (and thus money) out shopping. Trees also intercept rainfall, reducing the amount of stormwater our systems must process. People even tend to drive more slowly along tree-lined streets, making them safer for all residents.

For homeowners, trees provide a wealth of benefits as well. According to the National Tree Benefit Calculator **(www.treebenefits.com)**, a 10" silver maple in an Alabama front yard can provide $69 per year of benefits to the homeowner. Much of that benefit is found in the interception of stormwater and the increase in property value associated with a tree that size.

As the tree gets larger, that benefit also grows. More details about these and the many other benefits our community trees provide can be found at websites such as **investfromthegroundup.org/, www.treebenefits.com/calculator**, and **www.treesaregood.org**.

How can you get involved in urban forestry?

Trees are the coolest organisms ever, and one of the great benefits to focusing on the community forest is that we get to see the trees as well as the forest. Any person can enjoy learning more about the trees around them and then get involved in community forestry activities. Three websites were mentioned earlier in the article with quality information about the trees in our midst. The US Forest Service also has a robust urban and community presence online. Check out **www.fs.usda.gov/managing-land/urban-forests**. Another great website for both information and ideas on getting involved is Vibrant Cities Lab at **www.vibrantcitieslab.com/.**

And there is always Arbor Day Foundation **(www.arborday.org/).** In Alabama, we have 81 communities, 13 college campuses, and one hospital (so far) recognized by Arbor Day Foundation for their dedication to trees, so you probably live near a place that can use a tree volunteer. If your community is not a Tree City USA, then you can always contact me or your county Alabama Forestry Commission office to find out how to get your city enrolled. You may discover a new passion and decide to pursue training as a certified arborist. Whatever you decide, you cannot go wrong spending the time getting to know your own community trees a little better.

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TICKS: Small but Dangerous

By Coleen Vansant, Public Information Manager, Alabama Forestry Commission

If you are reading this magazine, you enjoy the outdoors. If you spend any time in the forest, you know there are certain critters to avoid. Ticks are especially important to pay attention to . . . they aren't just a nuisance, they carry many diseases that can have devastating effects, such as Rocky Mountain Spotted Fever and Lyme Disease. These spider-like insects are second only to mosquitoes in transmitting disease. Although it may be no larger than a pinpoint, a single tick can lay 3,000 eggs.

All people who spend time outdoors, either in their backyard or the woods, are at risk of exposure to ticks and contracting a tick-borne illness. Hikers, hunters, and outdoor workers are more likely to be bitten by ticks because their activities usually take place in prime tick habitat. Reducing exposure to ticks is the best defense against the diseases they carry. Because of the warm, southern climate, ticks in all life stages may be active year-round in Alabama. While you should take preventive measures against ticks throughout the year, be extra vigilant in the warmer months of April through September when ticks are most active. After any trip to the woods, it is important to dress properly and to perform tick checks.

After being bitten by a tick, symptoms may develop a few days to weeks later. If you get a tick bite and develop symptoms, see a health care provider for treatment. Chills, headaches, or muscle aches may develop within 3-10 days after a tick bite. In some cases, a rash may develop on the wrists and ankles 1-3 days after the fever begins. These could be symptoms of a tick-related illness and treatment is necessary. Your health care provider will want to know where you likely acquired the tick bite. Save the removed tick, place it in a plastic bag, and freeze it in case it is needed to diagnose a tick-borne disease.

Where ticks are found

Ticks thrive in moist, humid environments, particularly in or near wooded or grassy areas. You may come into contact with ticks during outdoor activities, or when walking through leaf litter around your home. You can find them in and around shrubs and bushes, low-lying branches, around rotten logs and stumps, beaches and dunes, and areas of lawns that are near woods or fields. When hiking, always walk in the center of trails in order to reduce the chance of contacting ticks.

Why do ticks bite?

Ticks are very small external parasites that feed by sucking blood from animals (hosts), including mammals, birds, reptiles, and amphibians. Most ticks go through four life stages: egg, six-legged larva, eight-legged nymph, and adult. After hatching from eggs, ticks must consume blood at every stage to survive, and most ticks prefer a different host at each life stage. In Alabama, there are several tick species, some of which carry illness-causing bacteria that can be transferred to the hosts on which they feed. While we do not know the percentage of infected ticks in Alabama, we do know that many people become ill from them every year.

What species of ticks are found in Alabama, and what hosts do they bite?

The lone star tick, *Amblyomma americanum*, is the most abundant tick species in Alabama. Adult females are easily identified by a Texas-shaped splatter of white in the center of their brown bodies, the feature that lends to their name. Lone star ticks aggressively seek human and pet hosts and may transmit disease. While the lone star tick does not transmit Lyme disease, according to the CDC, it can reprogram the human immune system to forever reject red meat, pork, chicken and other meats.

The black-legged tick, *Ixodes scapularis*, is also an abundant tick species in Alabama. This species is also known as the deer tick. This name should not be interpreted as meaning that it only feeds on deer or is the only tick species found on deer. A reddish-brown body distinguishes adult females of this species. Black-legged ticks will readily attach to humans and pets and may transmit disease.

The American dog tick, *Dermacentor variabilis*, is another abundant tick species in Alabama. Adults of this species commonly attach to human and pet hosts and may transmit disease.

The brown dog tick, *Rhipicephalus sanguineus*, is found throughout Alabama and commonly infests homes, animal pens,

and dog kennels. They can spend their entire life cycle indoors. Controlling infestation in a home can be difficult once this species is established. Brown dog ticks prefer dogs but will feed on humans and other mammals. They may transmit disease.

The Gulf Coast tick, *Amblyomma maculatum*, is found in Alabama and looks similar to the American dog tick. The species prefers to feed on large hosts such as livestock, deer, and coyotes. Gulf Cost ticks may attach to humans and pets if given the opportunity and may transmit disease.

How ticks spread diseases and infections

Experts say that for a tick to actually transmit a disease, it usually must be attached for 24 hours or become engorged with blood. If it is just crawling on the skin, you normally will not become infected with a tick-borne disease.

A tick infects its host by attaching to the skin. It uses its claws to tunnel beneath the skin where it attaches its mount. It is sometimes difficult to remove a tick, especially if it has been embedded for an extended period of time and begins to draw blood from the host. At some point, it reverses the flow and secretes saliva back into the wound.

How to avoid ticks before going outside

- Wear long pants and long-sleeved shirts.
- Dress in light colors to allow you to better see ticks on your clothing.
- Wear socks.
- Tuck your shirt tail into your pants, and pants legs into your socks.
- Wear close-toed shoes, preferably hiking or work boots.
- If you have long hair, put it in a bun or pull it up into a hat.
- Use an insect repellant containing no less than 20 percent DEET on all exposed skin and clothing, especially around the neck, sleeves, waist, and ankles. Other insect repellents registered with the Environmental Protection Agency (EPA) include picaridin, IR3535, oil of lemon eucalyptus (OLE), para-menthane-diol (PMD), or 2-undecanone repel ticks for several hours. The EPA has an online tool to help you select the repellent external icon that is best for you and your family. Always follow product instructions.
- Treat all clothing and gear with a product containing at 0.5 percent permethrin. Follow all label instructions and recommendations. When used properly, this is the most effective preventive measure you can take.
- Parents should apply these products to their children, avoiding the hands, eyes, and mouth. Do not use insect repellent on babies younger than 2 months old. Do not use products containing OLE or PMD on children under 3 years old.

After You Come Indoors

Bathe or shower as soon as possible after coming indoors (preferably within two hours) to wash off and more easily find ticks that are crawling on you.

Check your body thoroughly for ticks after being outdoors! Use a mirror or have someone help you with hard-to-see areas. You should do this for several days following possible exposure. Pay special attention to these areas:

- hair/scalp
- neck
- in and around ears
- under the arms
- inside the belly button
- around the waist
- groin area
- where bras pull snug to skin
- inside thighs
- backs of knees and around ankles
- in between fingers and toes

You can bring ticks indoors on your clothing, gear, and even pets. If you've been hiking, camping, or any other outdoor activity where you have cloth or canvas items, wash them as soon as possible. Wash clothing and washable gear in as hot water as recommended. Cold and medium temperature water will not kill ticks effectively. You can also remove ticks from your clothing, backpacks, blankets, etc. by tumble drying on a high heat setting for one half hour.

Black-legged tick, courtesy of the CDC

Treat boots, clothing, and camping gear with 0.5 percent permethrin. This will not only kill ticks on items you treat, but it will provide lasting protection even after it is washed several times.

Removing Embedded Ticks

You want to remove the tick as soon as possible. Do not paint the tick with nail polish or petroleum jelly. Do not use heat (a match for instance) to make the tick detach from the skin.

Do NOT use your fingers. You want to avoid squeezing the tick's body, which will force it to regurgitate your blood and any microbes the tick is carrying.

The best method for removing ticks is to use tweezers or a tool specifically manufactured for tick removal. Both items can be found at many discount stores, pharmacies, or sporting goods stores.

The goal is to remove the tick with its head intact. Grasp the tick with tweezers or tick removal tool as close to the skin level as possible. Lift the tick with steady, even pressure with the tweezers until the surface of your skin puckers. This is enough force to make it difficult for the tick to remain attached. Hold this position until the tick lets go. This may take several seconds.

Do not twist or jerk the tick. This could cause its mouth-parts to break off in the skin. If this happens, remove the mouth-parts with tweezers. If you are unable to do this easily with tweezers, leave it alone and let the skin heal.

Wash your hands and disinfect the bite site as well as the tweezers with rubbing alcohol, iodine, or soap and water.

To dispose of a live tick, submerge it in alcohol or flush it down the toilet.

What are the symptoms of tickborne diseases?

After removing an engorged tick, one should be aware of flu-like symptoms, fever or rash in the following two to three weeks and seek treatment if this develops. Many tickborne diseases

(Continued on page 28)

TICKS: Small but Dangerous

(Continued from page 27)

have similar signs and symptoms which include fever/chills; muscle or joint swelling, pain, or achiness; and a red spot or rash near the bite site, often in the form of a bull's-eye. These rashes may appear as circular, skin ulcer, general rash, or non-itchy spots. Other potential symptoms of a tick-borne disease include neck stiffness, headache, nausea, fatigue, and weakness. Watch for symptoms for 30 days.

What illnesses can ticks cause?

The good news is tick-borne diseases are usually easily treatable. The bad news is that they can often be difficult to diagnose. Lyme disease, Rocky Mountain Spotted Fever, tularemia, and anaplasmosis are the tick-borne illnesses seen most frequently in Alabama and other Southern states. Tick bites can also cause babesiosis, ehrlichiosis, rickettsiosis, and Southern tick-associated rash illness. These illnesses can range from mild symptoms treatable at home to severe infections requiring hospitalization and potential lifelong complications. Most tick-borne diseases can be treated early effectively with antibiotics, although rare long-term complications of Lyme disease include arthritis, cardiac and neurologic symptoms.

In 2013, the Alabama Department of Public Health Epidemiology Division conducted 1,137 investigations of tick-borne diseases with 290 confirmed cases. However, the actual number may be greater because not all tick-borne diseases are reportable in Alabama.

Spotted fever, caused by the spotted fever group of Rickettsia bacteria, is the most commonly reported tick-borne illness in Alabama. The best known and most severe form of the illness is Rocky Mountain spotted fever. Symptoms begin to present in a few days to two weeks after infection and include fever, headache, muscle pain, lack of appetite, nausea, vomiting, and abdominal pain. Most people develop a spotted red rash, typically around the wrists and ankles at first. This rash can spread to the entire body. Spotted fever infections are treated with antibiotics. These illnesses, like Lyme disease, are difficult to diagnose because of their nonspecific symptoms. This is particularly true when the rash is absent, which happens in approximately 10 percent of cases. These infections can cause lifelong health problems or be fatal if not treated quickly. Dogs may also get spotted fever infections if bitten by an infected tick.

Lyme disease is the most commonly reported vector-borne illness for humans in the United States, according to the Alabama Department of Public Health, with approximately 300,000 cases reported per year. Over the past 10 years, the Southeast has experienced a tremendous increase in the number of reported cases. Typical symptoms appear within days or weeks after being bitten by an infected tick and may include fever, headache, chills, stiff neck, fatigue, mental fogginess, depression, swollen lymph nodes, muscle aches, and joint pain. A telltale sign of Lyme disease is an expanding red skin rash called erythema igrans, located anywhere on the body. This rash may have a central area of clearing, giving it a 'bull's-eye' appearance. Most, but not all, of those infected present a rash, but the rash may not be at the location of the bite. Lyme disease is treated with antibiotics. If caught early enough, recovery is usually quick.

Tick paralysis is one of a few tick-borne conditions not caused by a pathogen. The illness is caused by a neurotoxin produced in a female tick's salivary glands and transmitted during attachment and feeding. Symptoms usually occur within two to seven days and include headache, vomiting, fatigue, and loss of muscle function. Treatment requires removal of the tick, after which symptoms go away within hours to days. If untreated, it can lead to respiratory failure and death. Children in rural areas during the spring, especially those not checked around the neck, scalp, and other areas upon coming indoors, are at greatest risk of getting tick paralysis.

Consider calling your healthcare provider

Treatment for tickborne diseases should be based on symptoms, history of exposure to ticks, and in some cases, blood test results. Most tickborne diseases can be treated with a short course of antibiotics.

In general, the CDC does not recommend taking antibiotics after tick bites to prevent tickborne diseases. However, in certain circumstances, a single dose of doxycycline after a tick bite may lower your risk of Lyme disease. Consider talking to your healthcare provider if you live in an area where Lyme disease is common.

Treating your pets for ticks

Horses, dogs, cats, and other pets that spend time outdoors can be bitten by ticks and infected with a tickborne illness. If those pets come inside, they can bring ticks into your home and put you at greater risk of being bitten.

Dogs are highly susceptible to tick bites and tickborne diseases. Use tick prevention products for animals regularly to protect your dogs and family from tick bites. A variety of tick prevention products are available including tick collars, sprays, and oral medications. Talk to your veterinarian about the best choice of tick prevention product for your pet. Use a brush in addition to full body checks.

For dogs, check everywhere for ticks after returning from tick habitats, especially around the face, ears, neck, under the front legs, between the back legs, belly, tail, around the paws, and in-between the toes.

Cats are extremely sensitive to many chemicals. Do not apply any insecticides, tick products, or insect repellents to your cat without first talking to your veterinarian! For indoor/outdoor cats, check for ticks all over, particularly around the ears and eyes.

REFERENCES:

Sources: Alabama Cooperative Extension System, Alabama Department of Public Health, Centers for Disease Control and Protection, University of Alabama Birmingham School of Medicine.

2020 Certified Prescribed Burn Manager Class and Workshop Schedule

Details about the Alabama Forestry Commission's Certified Prescribed Burn Manager Program may be found at
http://forestry.alabama.gov/Pages/Fire/BurnManager.aspx
Instructor: John Stivers, RF, CF, CPBM

- Who should take the CPBM Certification **COURSE**? Anyone who is interested in the use of prescribed wildland fire as a management tool and who is seeking certification should attend.
- Who should take the CPBM recertification **WORKSHOP**? Any current Alabama Certified Prescribed Burn Manager who needs the required 6 CEUs every 5 years for re-certification should take the workshop. **Please make sure that you are a Certified Prescribed Burn Manager in good standing** before you sign up for the recertification workshop. You can check your expiration date by logging into the online burn permit website **http://burnpermits.forestry.alabama.gov/Default.aspx?ReturnUrl=%2fpermits%2fUserInfo.aspx** and checking My Info.

*****REGISTRATION OPENS April 1, 2020*****

PRE-REGISTRATION IS REQUIRED. Seating is limited to 50 students for courses and 50 students for workshops.
Please visit **http://forestry.alabama.gov/Pages/Fire/BurnManager.aspx** to register and pay online. **We now accept credit cards and e-checks**. There will be a 4% charge for credit cards and a $4 charge for e-checks. **Registration fees may be refunded in full up until June 1, 2020. Non-refundable after June 1, 2020.**

The registration fee for courses is $150. The registration fee for workshops is $100. Only paid attendees will be allowed to participate in the training sessions. For more information on registration, contact Marti Davis at 334-240-9332. (DO NOT CONTACT THE COURSE/WORKSHOP LOCATION REGARDING REGISTRATION OR COURSE DETAILS.)

Certification Courses:

- **Auburn University Forestry & Wildlife Science Building**, July 7-10, Tuesday through Friday; sign in starts at 7:30 AM; class starts at 8:00 AM; 602 Duncan Drive, Auburn University, AL; Latitude 32.594639, Longitude -85.487844
  Park at the South Quad parking deck ONLY on the 3rd or 4th level - no permit required on these levels this week only

- **Alabama Fire College**, August 11-14, Tuesday-Friday; sign in starts at 7:30 AM; Class starts at 8:00 AM; 2501 Phoenix Drive, Tuscaloosa, AL; Latitude 33.120747 N, Longitude -87.571192 W
  Parking lot at the western end of the fire college facility; sign will be at the building where class will be held

Re-certification Workshops:

- **Auburn University Forestry & Wildlife Science Building**, Monday, July 6; sign in starts at 8:00 AM; class starts at 8:30 AM; 602 Duncan Drive, Auburn University, AL; Latitude 32.594639, Longitude -85.487844
  Park at the South Quad parking deck ONLY on the 3rd or 4th level - no permit required on these levels this week only
- **Alabama Fire College**, Monday, August 10; sign in starts at 8:00 AM; Class starts at 8:30 AM; 2501 Phoenix Drive, Tuscaloosa, AL; Latitude 33.120747 N, Longitude -87.571192 W
  Parking lot at the western end of the fire college facility; sign will be at the building where class will be held

You must make your own lodging arrangements
Breaks and lunch provided for all courses and workshops at no cost to participant.
Certified Prescribed Burn Manager courses and workshops are sponsored by the following:

REMEMBERING

John Dorrill and his wife, Carol

John H. Dorrill, Jr.
1929-2020

By Debra Davis,
courtesy of Alabama Farmers Federation

John H. Dorrill Jr., certified TREASURE Forest landowner and former Alabama Farmers Federation executive director, died January 28 at his home in Montgomery. He was 90.

Dorrill was a Pike County native whose father was a sharecropper. He graduated from Pike County High School. After attending Troy State University, he served two years in the Army Counter-Intelligence Corps during the Korean War. When he returned to Alabama, Dorrill enrolled at Alabama Polytechnic Institute, now Auburn University, where he earned a degree in agricultural economics.

John Dorrill began his career at the Federation in June 1955 as an area organization director. He soon became a lobbyist for the organization and assistant to then-president J.D. Hays. He later served as Federation executive director under former president Goodwyn Myrick, a position he held until retiring in 1998.

"The Alabama Farmers Federation joins Mr. Dorrill's family in mourning the loss of this legendary leader who throughout his life never lost his agricultural roots," said Federation President Jimmy Parnell. "I'm not sure we'll ever know the full impact he had on Alabama agriculture, but there is no doubt farming in Alabama would not be what it is today without the work and dedication of John Dorrill."

In 2003, Dorrill received the Federation's Special Service to Agriculture Award — the highest award given by the state's largest farm organization. In 2006, he was inducted into Auburn University's Alabama Agriculture Hall of Honor.

While serving the Federation, Dorrill helped form the Alabama Peanut Producers Association, the Federation's Young Farmers Program and ELECT, the Federation's political action committee. His political prowess also helped tackle tough issues such as sales tax exemptions on agricultural items, current use tax legislation, and the lid bill. Commodity checkoff legislation was written and implemented during his tenure with the Federation, and he helped establish important farm programs such as the Boll Weevil Eradication Program, Dairy Marketing Association, and the Alabama Milk Control Board.

After retirement, Dorrill remained active in state, local, and federal political issues. He also remained active in the Federation where he served on the organization's State Wildlife Committee and Forestry Committee. He was Pike County Farmers Federation president for several years and was a Pike County Soil & Water Conservation District supervisor.

Dorrill served as Alabama TREASURE Forest Association president and Alabama Forestry Council president. He was past chairman of the Alabama and National Farm-City Committees and past district governor of Alabama District Kiwanis International. He was an active member of the First Baptist Church of Troy where he attended the Baraca Sunday School Class and was a former teacher of the class.

Dorrill enjoyed spending time with his family at the farm in Pike County. He often shared his farm with others, hosting events such as the Annual Take A Kid Fishing Day and tours on his timberland, which is a certified TREASURE Forest. The Dorrills were recipients of the Helene Mosley Memorial TREASURE Forest Award in 2004.

Dorrill is survived by his wife, Carol Anderson Dorrill, three children John H. Dorrill III (Sonjua), Lee A. Dorrill (Lynn); his daughter, Rachel Dorrill Batrez; and six grandchildren, Haylee, Chloe, Cameron, Collin, Clay, and Anna Claire. He is preceded in death by his parents, John H. Dorrill and Robbie Lee Dorrill.

Funeral services were held February 1 at First Baptist Church in Troy with burial at Bethel Baptist Church Cemetery near Banks. The family requests memorials be made to the Alabama TREASURE Forest Association Scholarship Fund — ATFA Scholarship Fund, P.O. Box 11000, Montgomery, AL 36191.

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Tommy Hendon
1953-2020

Tommy Hendon and his son, John

By Charles E. Wise, Registered Forester,
Work Unit Manager, Alabama Forestry Commission

Tommy Hendon, Randolph County landowner, passed away on February 10, 2020. Born on February 9, 1953, he was the son of John Hardy and Carolyn Sudduth Hendon. He worked at Randolph-Roanoke Career Technology Center as building construction instructor for 25 years before working as a custom specialist for Welborn Cabinet. He then owned and operated his own custom shop and firewood business.

Hendon's property was certified as TREASURE Forest #983 in 1993. His commitment to forest stewardship earned him Tree Farmer of the Year award in 1996, and in 1998 he received the prestigious Helene Mosley Memorial TREASURE Forest Award. Hendon was a long-time member and former chairman of the Randolph County Forestry Planning Committee, as well as a member and past president of the county chapter of the TREASURE Forest Association. He was also actively involved in the Alabama Forest Owners Association.

Tommy loved the outdoors. He enjoyed being in the woods, working on his TREASURE Forest, hunting, and being with his family. He was Christian by faith.

Hendon is survived by his wife, Sharon Bonner Hendon; son, John Frank Hendon (wife, Kelli); daughter, Hope Hendon Barngrover (husband, Ron), all of Roanoke; three grandchildren, Riley Barngrover, Peyton Barngrover, and Kate Hendon; mother, Carolyn Hendon; and beloved niece, Megan May Burge. Mr. Hendon was preceded in death by his father and sister, Elizabeth Hendon May.

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PRESCRIBED BURNING

Prescribed burning not only provides benefits for both your timber and wildlife, but also protects you and your neighbor from devastating wildfire. The Alabama Forestry Commission's professional team of Certified Prescribed Burn Managers can safely and efficiently conduct either a site preparation or understory burn on your property. For more information or specific pricing, contact your local AFC office.

FIRELANE CONSTRUCTION

In an effort to maintain, enhance, and/or protect the timber on your property, the Alabama Forestry Commission offers affordable dozer work by experienced operators to assist you with construction of fire lanes and creation of small wildlife openings (less than five acres). For more information or specific pricing, contact your local AFC office.

AERIAL IMAGING & MAPPING

Whether it's a single photo, live imaging, video, or a complete map of your property, the AFC offers a full line of drone aerial services. Available items include an aerial map of your property with markups, as well as a digital copy that can be used in your management plan, a copy of all captured images, and video footage upon request. If you have questions or need more information, contact your local AFC office.

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