

Tree Country

September 2016



the employee
newsletter of the
South Carolina
Forestry Commission

INSIDE THIS ISSUE



Forest Health Training
Page 4



Greenville Watershed
Page 10



Employee Spotlight: James Price
Page 14



from the desk of
STATE FORESTER
Gene Kodama

Good day,
A while back, I said I would not write about the weather any more in my column, but I cannot resist. Besides, I now have a clear connection to forestry to mention. Weather data confirm that this past July was the warmest month ever in Columbia and the warmest July ever in Charleston. And, it now appears that the extended hot and dry summer conditions have made stressed trees even more susceptible to insects and diseases, particularly Ips beetle in pines.

Individual pines have recently died and turned red to brown and are obvious along the highways. Some hardwoods are also dying from other stress-related causes. Our entomologist, David Jenkins, also believes that the significant numbers of trees dying are primarily the ones that were already stressed by growing in crowded conditions or from damage by nearby site work. The long summer period of hot, dry weather has made them very susceptible to

insect and disease attack. In fact, his investigations have shown that most of the dying trees are primarily very slow-growing, stressed individuals as confirmed by analysis of increment core samples.

So, as we drive along and see these individual dying trees we can know what is causing most of the damage. If we start to see groups of trees dying, we need to take a closer look and let David know about them in case the trees are



In August and September we have received numerous calls from homeowners who can “hear the beetles gnawing” inside their trees. The insects are the larvae of the southern pine sawyer, a longhorn beetle that attacks dying and recently killed pines. The core samples (above on the left) show two trees with very slow growth for many years on the left and a tree with normal growth on the right. The two slow growing trees (narrow growth bands) were both infested by the southern pine sawyer and Ips. What is amazing about this is that these trees were suppressed for many years before Ips and the southern pine sawyer were attracted to them.

being killed by southern pine beetles, which can cause much more damage than the loss of individual scattered trees. We can also be reminded that the best prevention against insect and disease attack is to keep our forest stands actively managed, protected from mechanical damage, and thinned to avoid stress and provide good growing conditions. Our forests are also very resilient and have encountered and rebounded from such outbreaks in the past and will do so again.

Best regards,



A loblolly pine infested with Ips beetles.



Black River Unit Forester Ron Holt, President of the Dillon County Forestry Association Louie Bodenhamer, Pee Dee Regional Forester Mike Ney, State Forester Gene Kodama, DCFA member and SCFC County Board member Dickie Sherman, and DCFA Secretary Linda Hayes at the Dillon County Forestry Association meeting Sept. 1. Kodama was presented a very nice wooden plaque (below) in appreciation for his dedicated service to the Dillon County Forestry Industry. Ms. Hayes donated the board used for the plaque, which is heart pine.



This issue's cover features the Angel Oak, one of South Carolina's most famous trees. For information on the celebrated oak, go to page 9.

Employee News

New Employees

We would like to welcome four new employees who started in August.

Tonya Goodman is a new Dispatcher for the Pee Dee Region Dispatch Center. She lives in Darlington and previously worked for Darlington County 911 and Blue Cross Blue Shield. Tonya started Aug. 2.



Tonya Goodman

Caity Homan is a new FIA Forester for the Coastal Region who started Aug. 2. Caity resides in Salley and attended the State University of New York College of Environmental Science and Forestry in Syracuse, N.Y. She has a background in wetland studies and solutions with the National Ecological Observatory Network at the Smithsonian Conservation Biology Institute. Caity is also a member of the Army National Guard at the McCrady Training Center. She enjoys kayaking, fishing, and hiking.



Caity Homan

Josh McManus is a new Trades Specialist for Sand Hills State Forest. Josh started Aug. 17 and lives in Rembert. He attended Lugoff-Elgin High School and has a two-year degree in natural Resources Management from Central Carolina Technical College in Sumter. He previously worked at Camden Tool Rental working on small engines and Invista as a fork lift operator. Josh enjoys anything outside, mostly hunting and fishing. His Boykin Spaniel, Rowdy, is with him most of the time.



Josh McManus

Philip Palmer is a new Trades Specialist for Manchester State Forest and started Aug. 18. He lives in West Columbia and attended Irmo High School. Philip previously worked six years for the US Forest Service and the US Marine Corps. He served 26 years in the US Army. Philip has a wife and six kids and enjoys hunting, fishing, and farming. He also rescues dogs.



Philip Palmer

Welcome to the agency!

PERSONNEL NEWS

Henry Hutto is the new project forester for Edgefield, McCormick and Saluda counties effective Aug. 17. He was previously the project forester for Darlington, Lee and Marlboro counties.

Forest Technician **Thad Wimberly** has been promoted to the Orangeburg County Supervisor effective Sept. 2. Congratulations, Thad!

Procurement Manager **Emily Smith** has resigned from the agency effective Sept. 1. Environmental Education Coordinator **Stephanie Kolok** has resigned from the agency effective Sept. 7. We wish them the best in their endeavors.



Thad Wimberly

RETIREE NEWS

Former Piedmont Nursery Manager **Glenn Whitmire** passed away Aug. 16. Glenn worked at the Piedmont Nursery approximately 16 years until the nursery was phased out.

Recently retired Accounting Technician **Lisa Mowbray** passed away Aug. 30. More on Lisa on page 17.

CAUGHT ON CAMERA



Children from Adlerian Child Care in Columbia were lucky enough to have a close encounter with this eastern kingsnake during a recent forest hike at Harbison State Forest. The walk was led by Matt Schnabel, Environmental Education Assistant Coordinator.



DNR's Camp Wildwood, located at Kings Mountain State Park, borrowed Nomex shirts from the Commission for their forestry class. The students learned about prescribed burning and how to clear a firebreak. Approximately 100 rising 10th- through 12th-grade students attended the camp and experienced the natural environment.

Name the Dummy



The Division of Communications and Public Information is partnering with fire staff to outfit a mannequin in wildland firefighting gear, which will be used as part of an educational exhibit housed at Harbison State Forest. The display will also likely tour the state as an exhibit piece at conferences, community events and school functions. But our dummy needs a name! Send us your ideas for a creative fire-related name for the agency's newest employee.

Programs

Programs

Forest Health Training Held at Harbison State Forest

The Insect and Disease section hosted a forest health workshop in conjunction with David Coyle of the Southern Regional Extension Forestry and Stephen Compton from Clemson University Extension. The training was held Aug. 16-17 at the Harbison Environmental Education Center and was attended by representatives from the SC Department of Transportation and the Virginia Department of Forestry as well as from the South Carolina Forestry Commission.

The training was designed to familiarize foresters and landowners with some of the pests, diseases and weeds they are likely to encounter in southern forests. They learned how to recognize these pests and how to successfully manage them. The training included a full day in the class and a half day in the field.



David Coyle and SPB Coordinator Chisolm Beckham peel back the bark from a pine tree recently struck by lightning to find Ips beetles and pine sawyer beetles on Harbison State Forest.



Forest Health

- David Jenkins



Participants listen attentively to David Coyle speak about forest health issues.

Programs

Camp 4-H₂O Uses Harbison State Forest as Lab

Harbison State Forest was used as an outdoor laboratory as part of Camp 4-H₂O Aug. 10. 4-H'ers from across the Midlands converged on the forest for the program.

4-H₂O is a hands-on science inquiry program that provides children and adults with knowledge about their local water resources and teaches them the field, analytical and critical thinking skills they need to make decisions that affect the quality of these aquatic systems. In the morning, Forest Health Program Coordinator David Jenkins, Environmental Education Assistant Coordinator Matt Schnabel, and local 4-H agents helped the youth assess the health of Middle Creek, which flows into the Broad River, by measuring the creek's physical, chemical, and biological characteristics.

In the afternoon, Schnabel directed the youth through a Project Learning Tree activity where they became water molecules and traveled through the water cycle. SPB Coordinator Chisolm Beckham ran an activity on watersheds including an in-depth study of Harbison State Forest's watersheds, and Harbison State Forest Manager James Miller led a forest hike to show how plant communities change as they hiked from an upland to riparian forest. It was a great day in the forest!



This camper tried on a new type of earring, a lizard, while at HSF.

Education

- Matt Schnabel



Forest Health Program Coordinator David Jenkins helped these children assess the health of Middle Creek by measuring the creek's physical, chemical, and biological characteristics.

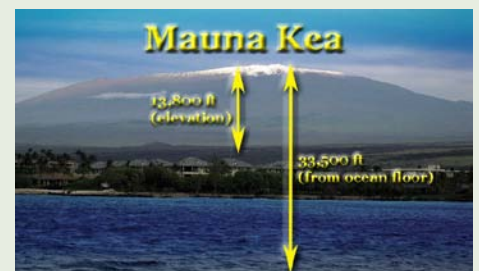


Harbison State Forest Manager James Miller led a forest hike for the 4-H'ers.

FUN FACTS

- The tallest mountain in the world is located in the United States. Mauna Kea, in Hawaii, is only 13,796 feet above sea level; however, when measured from the sea floor it is over 32,000 feet high, making it taller than Mount Everest (Earth's tallest mountain above sea level at 29,028 feet).
- Although English is the most commonly spoken language in the U.S. and is the language used in government, the country has no official language.

Geography.about.com



Programs

Certified Prescribed Fire Manager Courses Scheduled

The South Carolina Forestry Commission is offering training for individuals seeking to be a Certified Prescribed Fire Manager. Certification can reduce the liability for those conducting outdoor burning. Training sessions are scheduled as follows:

<u>Session Date</u>	<u>Location</u>
October 11, 2016	Columbia
October 26, 2016	Florence
November 15, 2016	Moncks Corner
January 11, 2017	Columbia

Training & Safety

- Leslie Woodham

The one-day course teaches managers how to plan prescribed burns that comply with South Carolina Smoke Management Guidelines. These regulations are mandatory for all forestry, wildlife and agricultural burning in South Carolina.

The course is not intended to teach individuals how to burn, but rather how to manage smoke from prescribed fires under these regulations and create awareness of legal issues associated with outdoor burning. Certification requires that an individual complete this training, pass a written exam, and document one's burning experience. Each session will begin at 8:30 a.m. and end by 5 p.m.

To register for the course, please complete the **registration form at www.state.sc.us/forest/cpfm.htm**, and mail it with the \$50 registration fee. Applications are accepted on a first-come-first-served basis. The deadline for registration is three weeks prior to the course.

Reference materials and details regarding locations will be mailed to registrants two weeks prior to each session. If you have further questions, please call Leslie Woodham at (803) 896-8809.



Three members of the Resource Development Division staff represented the Forestry Commission at the International Woodworking Fair in Atlanta Aug. 24-27. Equipped with two new trade show displays promoting the agency's development and marketing efforts under the Forest Products South Carolina brand, Resource Development Director Tim Adams, Forest Resource Analyst Scott Danskin and Forest Products Marketing Specialist Edgar Arias took turns manning the exhibit and attending conference sessions. One of the new exhibit pieces features a rotating viewfinder wheel that highlights economic impact-related forestry facts about the Palmetto State.

Programs

Waite Addresses American Society of Landscape Architects

Frances Waite, Coastal Region Urban Forester, spoke at the annual conference of the SC Chapter of the American Society of Landscape Architects Aug. 5 in Greenville. The theme of the conference was stormwater management. It was a unique opportunity to showcase the activities of the SCFC urban program and share information about the latest grant project, "Restoring and Preserving Urban Tree Canopy for Stormwater Management."

Waite also described the Green Infrastructure model created for South Carolina in 2015 by the Green Infrastructure Center in Charlottesville, Va. with a grant from the US Forest Service, administered by the SC Forestry Commission. This model shows the connected habitats in the state with maps that include natural resources such as forests, agricultural soils, parks, open spaces, rivers, wetlands and bays, and other habitats. These interconnected networks provide clean water, clean air, food, wildlife habitats and recreation.

The concept of identifying an interconnected network, when planning at the site scale is critical for a functional, aesthetically pleasing site plan. Waite stressed the importance of planning at a regional or county scale to account for water flow in the context of a larger system, so the site plan will

complement the natural landscape and watershed. This relationship between the larger scale and the site scale ultimately determines the success of stormwater management.

Landscape Architects design outdoor public and private areas and must take into account ecological processes in the landscape to produce a desired outcome. An important part of a landscape architect's site design includes stormwater management.

Speakers covered such topics as roof gardens, sustainable sites initiative, stormwater planting strategies, rain parks (functional parks that are built in mind that they will be flooded during heavy rain events to keep water on site), and site planning and design that integrate stormwater management.

Waite also discussed a USFS grant administered by the SC Forestry Commission that will include seven states as well as the Green Infrastructure Center. Seven to 10 partner cities across the southeastern US will be selected to integrate urban tree canopy with municipal stormwater programs. The partner cities are required to have a GIS Department, Urban Forestry Program, Stormwater Engineering Program, and a Planning Department. The goal of the project is a process for integrating trees into the city's stormwater management program. The project will use land cover



Coastal Urban Forester Francis Waite

data to map project municipality's urban tree canopy, impervious areas, buildings, forest patches, stream buffers and green corridors, and identify areas subject to excessive runoff and flooding risk.

Urban Forestry

- Lowe Sharpe

Did You Know?

The traditional wedding anniversary gift for the first year is something paper.

The traditional fifth year gift is something made of wood, while the modern wedding anniversary gift for the sixth year is something made from wood.

The ninth traditional gift is something made from willow.



NASA Works with U.S. Forest Service to Improve Fire Shelters

NASA engineers say they're making progress in their efforts to help the US Forest Service design a better emergency fire shelter for wildland firefighters.

The NASA Convective Heating Improvement for Emergency Fire Shelters or CHIEFS project started because of the deadly Yarnell Hill fire in Arizona in 2013. Nineteen firefighters were trapped in a raging, wind-driven wildfire, and the emergency shelters they carried and used were unable to save them.

"When I saw that on the news, it just shook me to the core," said Mary Beth Wusk, the acting program manager of NASA's Game Changing Development Program in the Space Technology Mission Directorate. "The huge loss of those firefighters made some of us at NASA think about how our research might help improve firefighter survivability." Wusk participated in personal fire tent shelter concept tests at the University of Alberta. At the time Wusk was part of a group at NASA's Langley Research Center in Hampton, Va., that is developing flexible thermal protection systems for inflatable heat shields for spacecraft. NASA Langley signed an agreement with the Forest Service in early 2015 to see if some of its space-age materials could help save firefighters' lives.

"We've been able to use our decade of experience developing flexible heat shield materials, which have a lot of things in common with fire shelter materials," said Josh Fody, CHIEFS task lead. "We have approached the challenge of designing a new shelter from an engineering perspective, starting with screening small samples of 70 materials and over 290 unique combinations of those materials."

NASA is working with the U.S. Forest Service's Missoula Technology and Development Center (MTDC) in Montana and Fire Shelter Project leads Anthony Petrilli and Mary Ann Davies. The MTDC team started a review of the fire shelter design and new materials technology in 2014 with the goal of producing an improved shelter by 2018.

Petrilli has personal knowledge that he can apply to the redesign. As a wildland firefighter in Colorado in 1994 he survived a blaze by using the fire shelter that was part of his gear. Seven others fighting the fire with him also lived, but 14 others did not. "Our project is trying to take advantage of advances in materials that may offer better protection by slowing the transfer of heat through the shelter layers," said Petrilli. So the Forest Service and NASA have been testing layered combinations or lay-ups of materials to see which might prove the most effective.

"We learned quickly we couldn't repurpose our materials directly," said Fody. "You can't just take an inflatable heat shield and turn it into a fire shelter. The constraints for mass and volume are far too strict for the fire shelter world." Fody says the current shelters are less than a millimeter thick, weigh 4.3 pounds and pack into a size similar to a half-gallon of milk. "What we ended up doing was drawing more on the test experience and expertise that our senior engineers have and using that to benefit the CHIEFS project," added Fody. "We've learned how to make the insulations more efficient, how to get them smaller and lighter and then we learned even more when we tested the lay-ups in the real world."

That real world consisted of two different set-ups in Canada, where the Forest Service tests its shelters, and additional tests at North Carolina State University. University researchers set up a test rig that included a small metal shed equipped with eight large propane burners. The shelters were placed inside the shed, instrumented with heat and gas measuring devices, and then torched so NASA and the Forest Service could see how well the different layups performed. The team had already tried to assess the new designs in an actual woods fire set in a remote section of Canada's Northwest Territories, but those tests had to be stopped when the firefighters overseeing the controlled burn were called away to fight an actual wildfire.



NASA Langley researcher Josh Fody, standing at left, prepares a shelter concept for testing with US Forest Service personnel Tony Petrilli, center, and Shawn Steber, at right. Credits: US Forest Service/Ian Grob

"I was really proud of the NASA shelters. The materials did really well," said Wusk. The materials proved effective, but researchers noted challenges with the actual designs during the testing. Flames ended up entering under the bottom, in part because there was no one inside holding the test shelters down. Hot gases also penetrated the seams.

So the team came up with second-generation shelter concepts that they put through flame tests this year. The team returned to the University of Alberta in Edmonton to evaluate five concepts and then traveled closer to home to the Thermal Protection Laboratory at the North Carolina State University College of Textiles in Raleigh to assess 22 shelter prototypes over three months.

The NASA CHIEFS project, which is funded by the Game Changing Development Program in NASA's Space Technology Mission Directorate, plans to wrap up its research this fall with more tests in Canada. Engineers expect to turn over their findings to the US Forest Service by early 2017. The Forest Service wants to have new test shelter prototypes to firefighters by next summer and an approved updated fire shelter ready for use by 2018.

www.nasa.gov/feature/langley/nasa-works-with-us-forest-service-to-improve-fire-shelters



South Carolina's Majestic Angel Oak is Impressive

On a recent trip to Charleston, I finally got to see the majestic Angel Oak, and I was quite impressed with its massive branches. This oak is a southern live oak (*Quercus Virginiana*) and is a common species across the Southeast.

Located on Johns Island, the Angel Oak is one of the most celebrated trees in the Lowcountry. Foresters estimate its age at 400 to 500 years old. That means it germinated before the United States was a sovereign nation.

Owned by the city of Charleston, the Angel Oak has received due attention in the past couple of decades. The trunk is almost nine feet in diameter and about 28 feet in circumference. It would take five grown men to wrap their arms around it. Wider than it is tall, the Angel Oak casts just under half an acre of shade. Visitors make the free visit to see the tree with branches as large as the trunks of normal trees. The branches are so heavy that they lay on the ground. Cabling is used to network the branches together so the tree is more tolerant of high winds. In the past, posts have been used to prop them up.

Every tree species has a life expectancy. In fact, the Angel Oak isn't the oldest

living tree. It's not even close. That honor goes to a bristlecone pine thought to be 5,000 years old. But for a live oak, 400 years is quite a feat. And with age comes aches and pains and complications. One of the greatest threats to its longevity is natural disaster. Trees are great conductors of lightning. A well-placed strike can rapidly end its life, bringing the sap to a boil as it travels to the root system. To prevent this, lightning terminals are posted at the top of the canopy to direct the voltage from a lightning strike down a cable attached to the outside of the tree. This safely disperses the energy into the soil.

Given enough time, all trees will develop decay. Long ago, cavities were filled to lend support, but that practice is no longer considered necessary and can in fact cause more harm. A healthy tree can compartmentalize the damage and prevent it from spreading. The best management of decay is proper pruning to minimize wounding and encourage health. Pruning is done primarily on an as-needed basis.

Visited by nearly 300 tourists a day, the tree requires special attention



to its roots. The majority of feeder roots are in the upper couple of feet of soil. Compaction from foot traffic will reduce oxygen content in soil as well as alter drainage. Over time, this can degrade soil vitality and reduce root growth. Mulch is an essential compound to protect the soil surface, moderating temperatures and moisture while offsetting compaction. In this case, the Angel Oak takes care of itself by shedding enough leaves to keep the soil adequately covered. Occasionally, additional mulch is added.

If you spend any time in the Lowcountry, witness one of the oldest, most beautiful live oaks in the South.

- Michelle Johnson

Programs

Fireline Training for Greenville Water Personnel

The South Carolina Forestry Commission conducted RT-130 fireline refresher training with Greenville Water personnel and fire department personnel from Greenville, Pickens and Oconee counties July 11 at the North Saluda Watershed.

The training focused on improving wildfire response times on Greenville Water properties by utilizing personnel from non-traditional partners to increase firefighting capacity. A total of 31 participants took part in the training, which included creating firebreaks on a mock wildfire with hand tools.

Greenville Water owns approximately 30,000 acres in the northern portion of Greenville County, and the SCFC is responsible for wildfire suppression on this land. While public access to these properties is limited to protect the water supply, wildfires are often ignited in remote areas by lightning and usually require extensive hand crew work. The training enables Greenville Water employees to provide firefighting assistance while additional SCFC resources travel to the area.

“This training was extremely beneficial,” SCFC Protection Chief Darryl Jones said. “Much of the Greenville watershed is very remote, and when we have fires there, it takes a lot of time to get enough firefighters in place. Providing refresher training for the staff from the Greenville Water will enable us to respond quickly and safely and keep fires smaller. It is also a great example of implementing the National Cohesive Wildland Fire Management Strategy—working with non-traditional partners to leverage our capability to suppress wildfires.”



A hand crew practices how to make a handline in the mountains.



The Greenville Watershed is very important to South Carolina and is widely recognized by industry professionals to be some of the cleanest natural water in the nation.

PARTICIPATING AGENCIES:

- SC Forestry Commission
- Oconee County Emergency Services
- Piedmont Park Fire Department
- Holly Springs Fire Department
- Donaldson Center Fire Department
- Central Fire Department
- Greenville Water System
- Liberty Fire Department
- Clemson University Fire Department
- Easley Fire Department
- Tigerville Fire Department
- Pumpkintown Fire Department



Thirty-one participants were trained during this day-long event.

Protection

- Darryl Jones

Researchers Say Trees Could Help Strengthen Auto Parts

Trees removed during forest restoration projects could find their way into car bumpers and fenders as part of a study led by Srikanth Pilla of Clemson University. Pilla is collaborating on the study with researchers from the USDA Forest Service's Forest Products Laboratory in Madison, Wis. They are converting some of those trees into liquid suspensions of tiny rod-like structures with diameters 20,000 times smaller than the width of a human hair. Pilla is using these tiny structures, known as cellulosic nanomaterials, to develop new composite materials that could be shaped into automotive parts with improved strength.

The auto parts would also be biorenewable, which means they could go to a composting facility instead of a landfill when their time on the road is done. The research could help automakers meet automotive recycling regulations that have been adopted in Europe and could be on the way to the United States.

Pilla, an assistant professor in the automotive engineering department at Clemson University, wants to use the composite materials he is creating to make bumpers and fenders that will be less likely to distort or break on impact. "They will absorb the energy and just stay intact," he said. "You won't have to replace them because there will be no damage at all. Parts made with current materials might resist one impact. These will resist three or four impacts."

The U.S. Department of the Agriculture's National Institute of Food and Agriculture is funding the \$481,000 research project for five years. Pilla's research will be based out of the Clemson University International Center for Automotive Research in Greenville, South Carolina. Craig Clemons, a materials research engineer at the Forest Products Laboratory and co-principal investigator on the project, said that the Forest Service wants to find large-volume uses for cellulosic nanomaterials. The research is environmentally friendly from start to finish.

The cellulosic nanomaterials could come from trees that are removed during forest restoration projects. Removing this material from the forests helps prevent large, catastrophic wildfires. Researchers will have no need to cut down healthy trees that could be used for other purposes, Pilla said.

Ted Wegner, assistant director at the Forest Products Laboratory, said, "The use of cellulosic nanomaterials will help meet the needs of people for sustainable, renewable and lightweight products while helping to improve the health and condition of America's forests. The United States possesses abundant forest resources and the infrastructure to support a large cellulosic nanomaterials industry. Commercialization of cellulosic nanomaterials has the potential to create jobs, especially in rural America."



Srikanth Pilla, left, works with a Clemson graduate student in their lab.

One of the technical challenges Pilla and Clemons face in their work is combining the water-friendly cellulosic nanomaterials with the water-unfriendly polymers. They will need to show that the material can be mass produced because automakers need to make thousands of parts. This research could grow in importance if the United States were to follow the European Union's lead in setting requirements on how much of a vehicle must be recovered and recycled after it has seen its last mile on the road.

"Dr. Pilla's work continues to have an impact on automotive engineering, especially in the area of manufacturing," Gramopadhye said. "His innovations are positioning Clemson, the state, and the nation for strength into the future."

<http://newsstand.clemson.edu/mediarelations/researchers-say-trees-could-help-strengthen-auto-parts/>

All-Wood Truck Turns Heads in South Dakota

The podcast and radio show "The Under the Hood Show" was in Canton, S.D. for the Canton Car Show, and posted a video of a Ford truck made of wood. Check out the video! <http://ktwb.com/blogs/chris-and-docs-spares-parts/745/all-wood-truck-turns-heads-and-goes-viral/>



Ford truck made of wood at the canton Car Show in South Dakota



How to Save Trees During Construction

TREE CITY USA®
BULLETIN

No. **7** Editor: Dr. James R. Fazio • \$3.00



***L**ife is just better when you are surrounded by trees.
Bird songs fill the air, adding delight to daily routine.
Trees cast their sheltering shade as they moderate the
temperature, quiet the noise, and clean the air.*

In summer, shade trees can save up to 58 percent of air conditioning costs. In winter, windbreaks can reduce heating bills by as much as 30 percent.

As an organization, the Arbor Day Foundation works hard to encourage people to plant trees. However, it is equally important to save the trees that Mother Nature has invested years in growing.

Saving trees during construction often requires courage by an individual — especially in communities where the common practice is simply to bulldoze everything in sight before construction begins. We've been inspired by the

At the University of Nebraska-Lincoln, chain link fence is used around every tree in a construction zone, showing serious intent to protect vegetation.

stories of people who have battled to save trees slated for destruction during a construction project. And we've been saddened by the stories of people who willfully destroy trees that could've and should've been saved.

But saving trees during construction requires more than the right attitude. It requires the right actions. This bulletin features a concise description of the actions you need to take to ensure the health of existing trees long after the sounds of construction fade away. We hope the information provided here will be put to good use. Your efforts will pay off for years as you enjoy the trees you've saved.

 **Arbor Day Foundation®**
100 Arbor Avenue • Nebraska City, NE 68410

The above summary is taken from Tree City USA Bulletin #07. More copies of the TC USA bulletins can be ordered from the Arbor Day Foundation at: 100 Arbor Avenue, Nebraska City, NE 68410 or online at: www.arborday.org.

Employee Service Awards



SERVICE AWARDS FOR SEPTEMBER

Employee's Name	Position	Location	State Service
Belton Musick	Warden	Black River Unit	30 years
Lou Sanders	Forestry Technician	Edisto Unit	30 years
Bruce Ballentine	Supervisor	East Unit	20 years

Parading Olympic Athletes Get Seeds to Plant Trees

In keeping with the message of coming together to save the planet, Olympic organizers handed out “Seeds of Hope” to the thousands of athletes marching in the opening ceremony. Each of the some 10,500 athletes in the Parade of Nations received a seed and a cartridge with soil to plant a tree native to Brazil.

During the opening celebration itself, the cartridges were placed in mirrored towers located along the stage. Once all the athletes had entered Maracana Stadium, the towers were pushed together and suddenly exploded in a splash of green, a simulation of trees sprouting up toward the sky.

But the gesture was more than mere optics. The real seeds eventually will be planted at one of the Olympic venues in nearby Deodoro.

The seeds will grow into the Athletes’ Forest in the area of Deodoro. There will be 207 species, one for each delegation.

Brazil has more than 50,000 catalogued species of trees.

www.summertimegames.ap.org/article/%E2%80%9Cseeds-of-hope%E2%80%9D-parading-athletes-gets-seeds-plant-tree-help-save-planet



Seed towers explode like growing trees during the opening ceremony in Rio. (Photo: NY Times)

25 Common American Customs Considered Offensive in Other Countries (Part 8)

MSN Business Insider

There are a number of customs and gestures that Americans use without thinking twice. But when traveling abroad, they will not only out you as a tourist, but could get you in hot water in other countries. Here are some of the most common American customs that are seen as offensive elsewhere.

8. Having one hand in your pocket

This is considered arrogant in Turkey, as well as in some Asian countries, like South Korea.



Employee Spotlight

on

James Price



Some people have a fear of flying. Others only get on an airplane out of necessity. For Pee Dee Pilot James Price, flying is a way of life.

Price, better known as “Heavy” by his co-workers, can’t remember a time in his life when he wasn’t around airplanes.

“After I was born, my parents took me from the hospital to the airport,” Price said. “That’s where I grew up. I grew up around airplanes. They are just a part of me.”

Price performs several important duties as a pilot for the Forestry Commission, including wildfire detection and storm damage assessment. Perhaps his most important job is serving as an aerial observer during a wildfire, providing valuable information to firefighters on the ground.

“Lots of times when firefighters are out there they can’t see anything,” Price

explained. “They can’t see anything but woods or maybe smoke. I just try to keep them out of trouble and watch the fire activity. I look out for wind shifts and stuff like that because I’ll see that before the boys on the ground will. I’ll see the smoke start moving and watch it for a little bit. If it continues to move with the wind shifting, I’ll tell them because they may be in a bad spot. Just trying to keep them out of trouble is my biggest job.”

The call to assist during a wildfire has come many times during Price’s 10 years with the Forestry Commission, but one fire in particular sticks out among the rest—the Highway 31 Fire in Horry County in 2009. The Highway 31 Fire, which is the most destructive fire in terms of loss in South Carolina history, burned 19,130 acres and destroyed 76 homes.

“You could just tell it was going to be bad,” Price said. “It was windy as all get out, and the fire wasn’t slowing down. It was spotting way ahead. There wasn’t anything going to happen with that fire but time. Highway 31 is a benchmark for most everybody that was around when that happened because they had never seen anything like that.”

Price isn’t the only one in his family who has flown for the Forestry Commission. His father, James C. Price, did contract work for the agency over the years, especially after Hurricane Hugo in 1989. His brother, Billy, served as a full-time pilot for the Commission.

(continued on next page)



Price flies his SCFC aircraft over the Highway 31 Fire.



Heavy with his father, who flew for the Forestry Commission.



James knew he wanted to be a pilot at an early age.

Born and raised in Dillon, Price knew he wanted to be a pilot at an early age. He was introduced to flying by his father, who owned a crop-spraying business in Dillon. Price went on his first solo flight at the age of 16 and has been logging hours ever since. When his father passed away in 1996, Price ran the crop-spraying business for 10 years and still helps his brother spray crops when he has time during the summer.

Having spent thousands of hours in the air, Price has had several close calls. While doing detection work for the Forestry Commission in 1997, he lost oil pressure and had to make an emergency landing on a road in Kingstree. He has also had a crop-dusting plane die during flight and rolled it over on its back in a cotton field.

"If you do it long enough, it's going to happen," Price said. "You just always have to be planning ahead."

In his spare time, Price enjoys hunting and taking care of his animals, including a horse, a mule, a jack donkey and some recently purchased Boer goats. You can also find him participating in Civil War reenactments several times throughout the year.

"I started looking back and doing a lot of research on the war," Price said. "It was just interesting. I figured every once in a while on the weekend I would like to live like that. When I started doing the reenactments, I used to do some fighting. I used to get out there and run and play and carry on. I'm not old but I'm too old for that, so now I sit around the campfire and cook different odds and ends."

But don't look for Price around the campfire during the summer months.

"I pick and choose when and where I go because I'm not going in 100-degree weather," Price quipped.



Price shows off one of the Grumman Ag-Cat biplanes he uses to spray crops.

Alta Boy

In an email dated Aug. 30 from SCFC Commissioner Sam Coker in response to a company's push to go paperless:

To the author of this request,

PLEASE do not propose the saving of trees as the reason to go paperless and "Save The Planet"!!!! I am a forester who, along with thousands of others who make a living from harvesting trees through environmentally sound management practices, really resent this notion of saving the trees. You must understand that it is a VIABLE forest industry that will perpetuate trees being planted, growing, and in a healthy productive state of 30+ years of rotation instead of another land use like row crops, pasture land, or building development and parking space. Because of our Forest Industry we have more trees growing today than we did 50 to 75 years ago.....let's keep it that way. There needs to be a monetary incentive for land owners to keep land in trees. It is much more than just a "feel good about yourself" decision. Therefore we need conservation minded rhetoric and to stop this preservationist, uneducated view of our forest!

Thank you very much,

Sam R Coker

President

SC Pole and Piling Inc



In a letter to the Forestry Commission dated Aug. 23 from Harbison State Forest user Richard Block regarding **Matt Schnabel** and **Harry Mathis**:

To whomever it may concern,

I am an annual pass holder at Harbison State Forest. I use the park for many different activities including hiking with my family, camping with the Boy Scouts, attending educational programs and riding my mountain bike with my son. I have said many times we are fortunate to have access to such a wonderful, public greenspace this close to where we live. Today I wanted to give two recent examples of exceptional service I have received by the park rangers that help manage this forest.

In April, my son and I attended the Forestry Merit Badge program put on by Matt Schnabel. The program was excellent. Mr. Schnabel did a great job teaching a room full of boys. He held their interest while telling them the importance of managing a forest, duties of a ranger and career opportunities surrounding the forestry industry. He also brought the forest alive with a nature hike that included identifying different trees, different forestry management practices and showing how to measure a tree's approximate age by taking a core sample. My son walked away understanding the importance of properly managing a forest and a greater appreciation for the services provided by forest rangers.

In June, I had an unfortunate mountain bike accident on one of the trails in the forest that resulted in me breaking my right hip. Fortunately, my 12 year old son was with me and retrieved my cell phone and called the office number. To our surprise at 6:30PM that Sunday night, the ranger on duty, Harry Mathis, answered the phone. He called 911 for us and directed the EMS personnel to the nearest road access to where I was on the trail. He then drove the 'mule' to my location to help in any way he could. I was loaded onto a stretcher, placed on the fire department's 'mule' and driven out of the park to a waiting ambulance. Mr. Mathis retrieved my bike and ensured it and my son made it safely back to the parking lot where my wife was waiting.

Having access to this forest in our backyard is a great advantage to living in this area. The service the park rangers provide in managing the forest is invaluable. In these two examples, these rangers have gone above and beyond any expectations I ever had for a park ranger. Mr. Schnabel giving up a Saturday so my son could learn about forestry management and to earn a merit badge was a gift. Mr. Mathis working late the Sunday night of my accident helped keep a traumatic event from getting worse. I'm not sure I would have made it out of the forest that night if it had not been for him. To both of these gentlemen, I am very grateful.

Please don't hesitate to contact me if I can provide further information on either of these two experiences I have had with the park rangers. It is the least I can do for all that they have done for me.

Sincerely,

Richard Brock

In a "Thank You" letter to Abbeville/Greenville/Laurens Project Forester **Michael McGill** dated Aug. 1 regarding his and Forest technicians **David Camp** and **Buddy Gunter**'s response to a wildfire:

Dear Mr. McGill,

We just wanted to let you know how much we appreciate the coordinated response to the fire on our property at 2600 Callison Hwy, on July 25.

All the effort involved with coordinating all the equipment to contain the fire was monumental.

We understand that you and others from the forest service were there when we arrived around 10pm from Concro, NC. We talked to David Camp briefly but did not want to get in the way.

The next morning as we were walking the burn area, David Camp was back with his dozer. We told him about areas burning and a downed tree over the firebreak and he promptly took care of that.

Many thanks for all of your trips out to investigate the fire. I know we may never know the cause.

If not for all your work and your staff, the fire would have been much worse.

Thank ya!!

Jean Ethridge Gantt and Bob Gantt

Human Resources

Upcoming Events

Below are events through December 2016 for PEBA Perks, regional preventative screening, and regional pre-retirement seminars. Follow the link to register for the event.

PRE-RETIREMENT SEMINAR DATES

September 19	Greenville	www.peba.sc.gov/events/detail.asp?key=322
September 26	Columbia	www.peba.sc.gov/events/detail.asp?key=326
October 7	Conway	www.peba.sc.gov/events/detail.asp?key=344
October 17	Greenville	www.peba.sc.gov/events/detail.asp?key=328
November 4	Rock Hill	www.peba.sc.gov/events/detail.asp?key=325
November 7	Charleston	www.peba.sc.gov/events/detail.asp?key=323
November 10	Beaufort	www.peba.sc.gov/events/detail.asp?key=324
December 5	Columbia	www.peba.sc.gov/events/detail.asp?key=327

Human Resources

- Lynn Rivers

Agency Mourns Loss of Mowbray



The Forestry Commission is mourning the loss of another employee dear to the Columbia office. Recently retired Accounting Technician **Lisa Mowbray** passed away Aug. 30 after battling cancer. Lisa worked for the Forestry Commission in Nursery and Tree Improvement and the Accounting Section for over 17 years. She worked for state government for 32 years and retired Aug. 1. Lisa was a very caring, dependable employee and friend and she will be greatly missed! Please keep her family in your thoughts and prayers.

CURRENT JOB OPENINGS

JOB TITLE: RE-ADVERTISEMENT - Trades Specialist III

CLOSING DATE: Continuous

AGENCY HIRING RANGE - MIN: \$22,182.00

AGENCY HIRING RANGE - MAX: \$31,614.00

LOCATION: Richland County, South Carolina

JOB TYPE: FTE - Full-Time

NORMAL WORK SCHEDULE: Monday - Friday (8:30 - 5:00)

JOB RESPONSIBILITIES:

THIS IS A RE-ADVERTISEMENT. PREVIOUS APPLICANTS NEED NOT RE-APPLY. YOUR APPLICATION WILL BE CONSIDERED FOR THIS POSTING. Under general supervision, performs semi-skilled to skilled trade duties in performance of repairs and maintenance of Harbison State Forest infrastructure. Operates complex motorized equipment to maintain the state forest road system by performing ditching, grading, sloping, and shaping duties and spreading gravel. Performs minor maintenance work on equipment. Inspects and maintains roads, trails, barricades, boundary lines. Performs fire suppression activities to include constructing firebreaks and assisting with prescribed burns and other Timber Stand Improvement activities. Operates motorized equipment to perform building/grounds/construction and maintenance to include repairs to buildings, sheds, docks, signs, etc. Inventories state forest property tools. Performs administrative record keeping activities. Assists with forest and wildlife management, protection and maintenance duties.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A high school diploma and three (3) years of trade experience that is directly related to the area of employment. Must be able to operate complex motorized equipment. Must pass the Class A, commercial driver's license written test prior to hire and the practical test within 90 working days. Must pass the agency's physical fitness test that requires a two (2) mile walk carrying a 25 lb. pack in 30 minutes. Firefighter registration

JOB TITLE: Forestry Technician I (in Greenville and Aiken County -2 positions)

CLOSING DATE: 09/10//16 11:59 PM

AGENCY HIRING RANGE - MIN: \$22,182.00

AGENCY HIRING RANGE - MAX: \$23,291

LOCATION: Greenville County and Aiken County, South Carolina

JOB TYPE: FTE - Full-Time

NORMAL WORK SCHEDULE: This position works a 28-day/8-hour rotating schedule.

RESIDENCY REQUIREMENT SPECIFICS (IF ANY): One position works in Aiken County/Surrounding Area. The other works in works in Upper Greenville County/Surrounding Area.

JOB RESPONSIBILITIES:

Responds to forest fire calls as required by the readiness plan. Performs forest fire duties with bulldozer tractor, hand tools and water handling equipment. Investigates fires to determine cause and gathers pertinent information to complete fire reports. Performs operator preventive maintenance on all assigned equipment and maintains equipment in a state of readiness; provides forestry services, such as firebreak plowing to landowners; assists with reforestation programs and other forestry operations.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A high school diploma and experience in forest fire protection duties, forestry management, operation of heavy mechanized equipment, or relevant work experience. Position requires a commercial driver's license (CDL). Candidate must pass the written CDL exam prior to employment. Must pass the agency's physical fitness test that requires a two (2) mile walk carrying a 25 lb. pack in 30 minutes. Firefighter registration with the State Fire Marshal's Office, criminal records check and drug test are required.

PREFERRED QUALIFICATIONS:

Associate Degree in forestry, natural resources or other related discipline.

ADDITIONAL: These positions cover a multi-county work zones.

CURRENT JOB OPENINGS

JOB TITLE: - Procurement Manager I

CLOSING DATE: 9/10/2016

AGENCY HIRING RANGE - MIN: \$39,960

AGENCY HIRING RANGE - MAX: \$56,947

LOCATION: Richland County, South Carolina

JOB TYPE: FTE - Full-Time

NORMAL WORK SCHEDULE: Monday - Friday (8:30 - 5:00)

JOB RESPONSIBILITIES:

Under general supervision, reviews all requisitions/field purchase orders to determine appropriate procurement method. Compile specifications and issue bid/solicitation documents for the agency, insuring compliance with the SC Consolidated Procurement Code and regulations and policy. Ensures the agency receives the goods and services that are in the contract; resolves any discrepancies or protests that may arise. Manages the agency Procurement Card program. Maintains and updates the agency procurement card policies and distributes to all new card holders or when updates are available. Ensures all Material Management Office (MMO) procurement guidelines are followed. Serves as the agency liaison for Bank of America (BA) Works system. Assigns, replaces, suspends and deactivates procurement cards. Reviews and signs monthly BA bill for accuracy and processing for payment. Serves as the liaison to the State Procurement Office on the procurement of goods and services. Develops and updates the agency's procurement policy and procedure manual to ensure compliance with the State Consolidated Procurement Code. Coordinates the purchasing, receiving and recording of fixed asset procurements with the Finance Office. Prepares and monitors the annual and quarterly Minority Business Utilization Goal. Serves as the agency liaison to the Governor's Office for the Small and Minority Businesses. Submits an annual Minority Business Utilization Plan for the agency. Serves as the main contact for the agency with minority vendors to assist them with becoming certified. Assists the Finance Office with resolving discrepancies between invoices and purchase orders/contracts. Assists field personnel in locating and procuring goods and services that are needed. Assists in reviewing and maintaining insurance coverage for agency buildings, equipment, vehicles, aircraft, and personnel through the State Insurance Reserve Fund.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A bachelor's degree and two (2) years work experience in procurement and contracts.

JOB TITLE: - Forestry Technician I

CLOSING DATE: 9/15/2016

AGENCY HIRING RANGE - MIN: \$22,182

AGENCY HIRING RANGE - MAX: \$23,291

LOCATION: Clarendon County, South Carolina

JOB TYPE: FTE - Full-Time

NORMAL WORK SCHEDULE: This position works a 28-day/8-hour rotating schedule.

RESIDENCY REQUIREMENT SPECIFICS (IF ANY): This position works in Clarendon County/Surrounding Area.

JOB RESPONSIBILITIES:

Responds to forest fire calls as required by the readiness plan. Performs forest fire duties with bulldozer tractor, hand tools and water handling equipment. Investigates fires to determine cause and gathers pertinent information to complete fire reports. Performs operator preventive maintenance on all assigned equipment and maintains equipment in a state of readiness; provides forestry services, such as firebreak plowing to landowners; assists with reforestation programs and other forestry operations.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A high school diploma and experience in forest fire protection duties, forestry management, operation of heavy mechanized equipment, or relevant work experience. Position requires a commercial driver's license (CDL). Candidate must pass the written CDL exam prior to employment. Must pass the agency's physical fitness test that requires a two (2) mile walk carrying a 25 lb. pack in 30 minutes. Firefighter registration with the State Fire Marshal's Office, criminal records check and drug test are required.

PREFERRED QUALIFICATIONS:

Associate Degree in forestry, natural resources or other related discipline.

ADDITIONAL: These positions cover a multi-county work zones.

CURRENT JOB OPENINGS

JOB TITLE: - Forester I

CLOSING DATE: 9/15/2016

AGENCY HIRING RANGE - MIN: \$33,852

AGENCY HIRING RANGE - MAX: \$35,545

LOCATION: Darlington County, South Carolina

JOB TYPE: FTE - Full-Time

NORMAL WORK SCHEDULE: Monday - Friday (8:30 - 5:00)

RESIDENCY REQUIREMENT SPECIFICS (IF ANY): This position works in Darlington, Lee and Marlboro County/
Surrounding Area.

JOB RESPONSIBILITIES:

Recommends and promotes sound forestry management practices to landowners to include examination of woodland and preparation of complete forest management plans. Assists landowners in implementing recommendations. Conducts prescribed burns; responds to wildland fires; performs forest fire suppression duties; marks and estimates volume on any stand of timber requested. Provides technical assistance in specialized areas of forestry to include best management practices, urban forestry and conducting insect/disease surveys. Provides information to the public regarding state forests and forestry services.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A bachelor's degree in forestry from a college or university accredited by the Society of American Foresters. Current SC Registered Forester or eligible within two (2) years. Must pass a physical fitness test of walking two (2) miles in thirty (30) minutes carry a 25 lb. pack. Must obtain firefighter registration with the South Carolina State Fire Marshal's Office. A criminal background check is a condition of employment.

JOB TITLE: - Temporary Part-time Building/Grounds Specialist I

CLOSING DATE: Continuous

AGENCY HIRING RANGE - MIN: \$8 Hourly **AGENCY HIRING RANGE - MAX:** \$10 hourly

LOCATION: Richland County, South Carolina

JOB TYPE: Temporary Part-Time

JOB RESPONSIBILITIES:

Under general supervision, performs ground keeping and custodial duties at Harbison State Forest. Maintains facility landscape by operating lawn mowers, string trimmers, blowers, rakes and brooms. Empty's trash cans and disposes of garbage. Maintains facility by cleaning restrooms, dusting furniture, and mopping and vacuuming floors. Removes/Disposes of litter in and around facilities.

MINIMUM AND ADDITIONAL REQUIREMENTS:

A high school diploma or GED and experience relevant to the position. Must be 18 years or older to be considered for this position.

ADDITIONAL: Employee will spend most work hours outdoors. Job requires bending, lifting, squatting, pushing and pulling. Must be able to sustain the environmental and physical rigors of working outside. Occasional weekend work may be required. The work schedule will not exceed 25 hours per week.

HOW TO HAVE A HAPPY DAY

- *Slow down*
- *Say "thank you"*
- *Take a deep breath*
- *Compliment someone*
- *Appreciate the small things*
- *Notice three things you are grateful for*



Open Letter from the State Inspector General: to State Employees

Helping prevent fraud, waste and abuse in state government is everyone's responsibility

Since initiating the SIG in July 2012, I have witnessed the pride, effort, and sacrifices state employees put forth every day in state government's wide array of missions carried out by 60,000 employees in 100 agencies, commissions, boards, and universities involving \$26 billion. Unfortunately, it only takes a few employees committing fraud, corruption, gross mismanagement (waste), or misconduct to undermine the public's confidence and appreciation in what each of you do every day.

I have a simple request that if you see indicators of fraud, corruption, gross mismanagement (waste), or misconduct, please let someone know. There is a natural hesitancy in not wanting to get involved for any number of reasons. A pivotal reason for establishing the SIG was to provide state employees an outlet for reporting fraud, corruption, and waste information if they had concerns about confidentiality or retaliation. You can provide information to the SIG where your confidentiality is guaranteed by me personally, as well as by statute. Additionally, the experience of the investigative staff will prevent using this information in any manner that could compromise confidentiality.

You can contact the SIG through our hotline (1-855-723-7283), via an Internet complaint form found on our website (<http://oig.sc.gov/Pages/Complaint1.aspx>), or via the U.S. mail at the State Inspector General's Office, 111 Executive Center Drive, Enoree Building, Suite 204, Columbia, SC 29210.

Some of you may be wondering why this email was forwarded through your agency head. From a technical perspective, I had no choice because of how the state's email system is set up. The more important reason is I am confident that agency heads are just as interested in rooting out fraud, waste, and abuse as the SIG, but they too can't act unless some state employee raises the issue. Agency heads spend a lot of time trying to identify the same issues as the SIG to improve their respective organizations, and I am sure they fully endorse you using the SIG's confidentiality mechanism if it makes you more comfortable in reporting this information.

Thank you in advance for your help and interest in eliminating fraud, waste, and abuse in state government.

Patrick Maley

State Inspector General

oig@oig.sc.gov

(803) 896-4729



Fire Weather Outlook

Southern Area:

An area of above normal significant fire potential will develop in August in central Texas, while much of the remainder of the area remains normal, this above normal region will expand to encompass much of the southeastern United States from September through October and November.

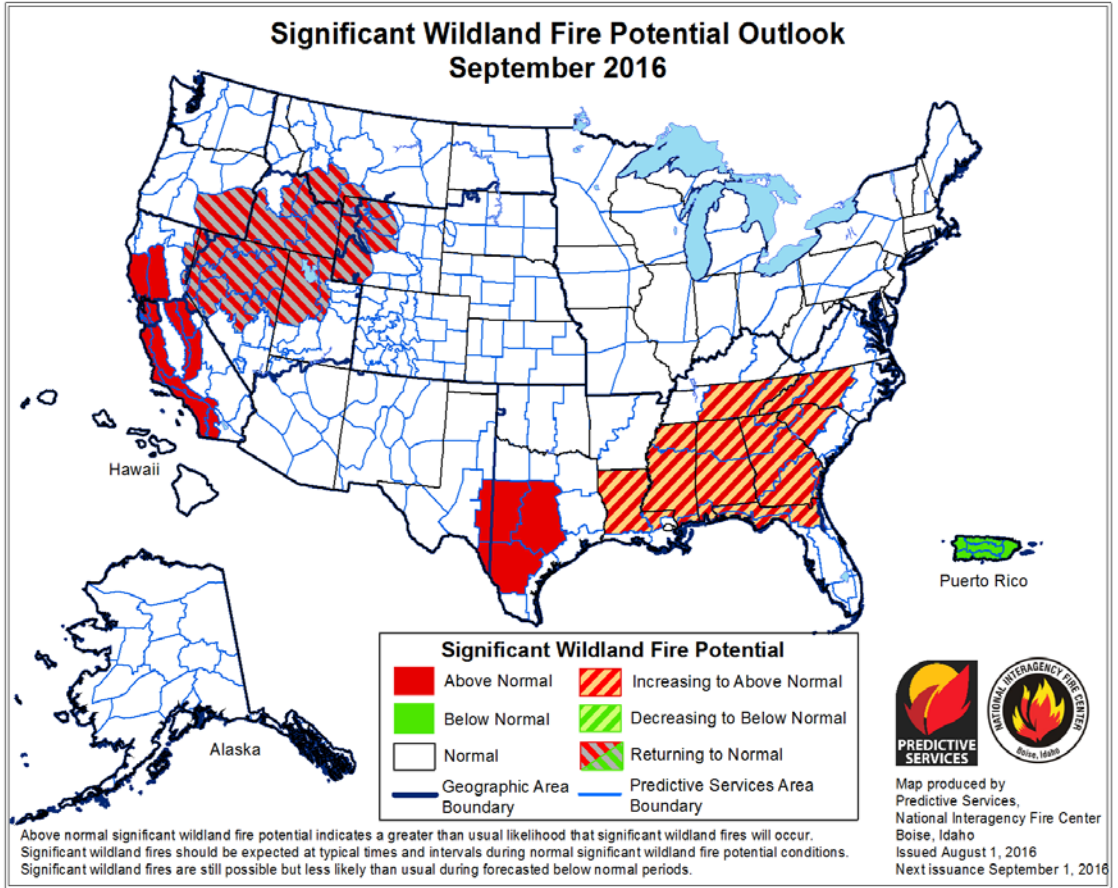
Normal significant wildland fire potential is expected in Puerto Rico for the Outlook period.

Short term dryness continued and expanded during July across the interior southeastern states. Pending significant and longer periods of summer thunderstorms, this trend remains the harbinger of the increasingly drier pattern which will eventually become more apparent within the Southern Area from September into November. The scattered coverage and variable amounts of precipitation will allow more drying in the moderate and large fuels. While August storm activity across the south will be similar to that of July, drought will expand and worsen. As in past years, any prolonged or especially intense drying from tropical system subsidence could

result in regional amplification of fire potential. Puerto Rico will likely remain in moist conditions as an elevated Atlantic tropic development pattern will likely influence an area from the Gulf of Mexico east to the northeastern Caribbean Sea.

Expect that a weak La Niña type pattern will emerge over the last quarter of the year. Atlantic tropical development will increase in potential during August and September, but pending any significant change in the upper air moisture environment in the

Atlantic and Caribbean, significant tropical development will likely remain low. Development would most likely affect the Gulf of Mexico and could significantly change the dryness that is now evolving. In any case, a La Niña will eventually produce drier and warmer-than-normal weather trends and higher wildfire threats for the Southern area.



Current Fire Numbers for South Carolina

MONTH AND YEAR TO DATE COMPARISON TO PREVIOUS 5 AND 10-YEAR AVERAGE

Time Period	AUGUST		JULY-AUG		FISCAL YEAR	
	FIRES	ACRES	FIRES	ACRES	FIRES	ACRES
5 Year Average	67	237	207	1,413	1,646	9,744
10 Year Average	99	498	244	1,429	2,162	14,889
Current FY ¹	92	349	235	908	234	908

¹To date for current fiscal year



*Oh, they cut down that old pine tree,
And they hauled it away to the mill.
They made a coffin of pine for that sweetheart of mine;
Cut down that old pine tree.*

*Yes, they cut down that old pine tree,
And they hauled it away to the mill.
They made a coffin of pine for that sweetheart of mine
When they cut down that old pine tree.*

Song: "They Cut Down the Old Pine Tree"
Artist: Jimmy Driftwood and George Fisher
Album: Mountain View, AR (1963)
Listen: <http://web.lyon.edu/wolfcollection/driftwoodoldpine1294.html>

Can you think of a song with tree- or forestry-related lyrics? Let us know, and we'll share it with everyone.

Quote of the Month
We do not see nature with our eyes, but with our understandings and our hearts.
William Hazlitt

Photo of the Month



State Forester Gene Kodama sent in this beautiful sunset photo from a trip he and his wife took to Islamorada, Florida this year for their 40th wedding anniversary.

Please send in your photos or news to Michelle Johnson at mjohnson@scfc.gov.