

# Tennessee Forestry Commission FY 2015 Annual Report



Department of  
**Agriculture**

Forestry



Wildfire Management



Forest Business Services



Forest Health



Forest Resource Management



Reforestation



State Forest Management



Forest Data & Technology



Communications and Outreach





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**Actions and Activities for FY2015**

The Tennessee Forestry Commission met 3 times during the 2015 fiscal year. The Commission received reports from citizens, staff, and subject matter experts on various forestry topics and issues affecting forest landowners and citizens of Tennessee. The Commission discussed and took action on the following matters:

- Invited a small acreage landowner who has received professional assistance and services from the Division of Forestry to share his experience in partnering with the state to improve his forest.
- Convened one of four meetings at the new Cumberland District Headquarters office in Cookeville.
- Heard presentation and discussed the Division’s emergency response effort during and following the Ice Storm of 2015.
- Invited Mike Black to discuss the Shortleaf Pine Initiative which is a partnership project funded by a US Forest Service grant and supported by the University of TN and Division of Forestry.
- Heard presentation on Department of Agriculture Commissioner Julius Johnson’s second annual forest products tour. This tour was to southwest TN where visits were made to Roach Sawmill in Savannah, Packaging Corporation of America in Counce and Brown-Forman Stave Mill in Clifton.
- Stayed abreast of proposed legislation that could potentially impact the forestry community.
- Discussed and approved the Division’s tree seedling production and pricing levels for the 2015-2016 season.
- Stayed abreast through presentations and updates of forest pest outbreaks and associated control measures.
- Invited Friend of Forestry Award recipient John McFadden, Executive Director of TN Environmental Council, to talk about partnering with the Division on planting 50K seedlings on one day.
- Reviewed the Division’s Fiscal Year Budget as well as the Budget Reduction Plan.
- Heard presentation on and discussed the new forest products branding initiative called Tennessee Wood Products, a brand we hope will be seen regionally and around the world.
- Heard presentations and updates on the implementation of Plan 2020, a new way of managing the resources on our state forest system.

**Members**

- Bob Qualman, Chair**  
Brentwood, TN  
Represents owners of less than 500 acres
- Johnny Heard, Vice-Chair**  
Collinwood, TN  
Represents hardwood manufacturers
- Dottie Mann, Secretary**  
Clarksville, TN  
Represents conservation organizations
- Charles Daugherty**  
Crossville, TN  
Represents public at large
- Jack Holder**  
Counce, TN  
Represents pulp and paper manufacturers
- Alex Richman**  
Lynchburg, TN  
Represents owners of greater than 500 acres
- Mike Witt**  
Cookeville, TN  
Represents owners of less than 500 acres
- Julius Johnson, Ex-Officio**  
Commissioner - Tennessee Department of Agriculture
- Ed Carter, Ex-Officio**  
Director - Tennessee Wildlife Resources Agency
- Robert Martineau, Jr., Ex-Officio**  
Commissioner - Tennessee Department of Environment and Conservation



I am pleased to present the Tennessee Forestry Commissions FY 2015 annual report.

Forestry is very important to Tennessee, providing beautiful landscapes, wood products, clean water and abundant wildlife habitat. Forestry directly or indirectly employs 100,000 people and accounts for 4.3 percent of the state economy. In the past few years large wood mills have closed resulting in thousands of job losses and the loss of opportunity for forestland owners to manage and improve their forests through timber harvests. The division has responded by providing potential forest products manufacturers information on the forest related resources we have available. They also created the Tennessee Wood Products branding initiative so our industry will be more recognizable world-wide.

In addition to the economic threat to good forest management mentioned above, the Division addresses many challenges such as new forest pests, invasive species, declining forest quality, wildfire, helping with ice storm emergencies and more, as they have for over 100 years.

Robert S. Qualman  
Chairman  
Tennessee Forestry Commission



Keeping an eye on 14 million acres of forests in Tennessee is no small task. The Tennessee Department of Agriculture is proud of the work that our Division of Forestry does to ensure that our forests are healthy and productive in order to provide the vast array of goods and services we all enjoy. Timber, wildlife habitat, clean water and recreation are just some of the benefits derived from Tennessee's forests, and we are fortunate to live in a state where this natural resource is appreciated. We recognize the tremendous responsibility the citizens of Tennessee place upon this department, and we are pleased to share some of the division's accomplishments in protecting this resource while enhancing opportunities for growth of our wood products industry.

In this report, as presented by the Tennessee Forestry Commission, you are sure to see the diversity of services offered by the division ranging from forest protection and economic development to landowner assistance and urban forest management. We want to build upon this strong foundation and are grateful for the dedication exhibited by our staff in conserving and improving our forest resources.

Julius Johnson  
Commissioner  
Tennessee Department of Agriculture



Fiscal Year 2015 was one in which the Tennessee Forestry Commission was fully engaged in their role as an advisory panel to the Department of Agriculture Division of Forestry whose goal is to protect, conserve and enhance the forest resources of our great state. Our forests, like many others across the nation, are facing challenges ranging from insect and disease outbreaks, to fragmentation caused by development and large tracts of land being subdivided into smaller ones. Fortunately, opportunities also abound. Our forests are rich with quality timber for making products and providing jobs. Beauty and protection make our towns and cities great places to live and visit, habitats exist for a wide array of wildlife species, and there are ample opportunities

for outdoor recreationists. Filtering attributes provide abundant and clean water, in addition to the "stuff" that makes for a desirable quality of life. The Division of Forestry and the Forestry Commission are uniquely positioned to affect positive change on our forested landscape. We are fortunate that this group of dedicated women and men are partnering with us to ensure proper oversight of these valuable resources.

Jere Jeter  
Assistant Commissioner/State Forester  
Tennessee Department of Agriculture  
Division of Forestry

TN

## Employee of the Year



Jason Rickman, center, receives the TDF Employee of the Year award from Commissioner Johnson. Also pictured from left Cumberland District Asst. District Forester James Dale and State Forester Jere Jeter, and from right, Cumberland District Forester Rick Merinar.

Jason Rickman was named the Tennessee Department of Agriculture Division of Forestry's Employee of the Year for FY2015.

The award is presented annually to a division employee who shows outstanding efforts and work accomplishments for a particular year.

"We are delighted to have a person with the experience, commitment and passion for protecting the forest resources of Tennessee like Jason serving as Forest Resources Coordinator in our Cumberland District," State Forester Jere Jeter said. "This is a very demanding job, and Jason has always been equal to the task."

Rickman started his career with TDF as a permit writer in 2004 in Smith County. In 2005 he conducted fire suppression as a dozer operator in Smith and Trousdale Counties. He became the Cumberland District's (CD) Fire Resource Coordinator in 2013. In that position he is primarily charged with dispatching staff and equipment resources on wildfires for 27 counties of CD. Jason also coordinates safety trainings, inspections of equipment and facilities, and tracks staff qualifications for the national Incident Qualification System.

*Rickman continued on page 20*

TN

## Forester of the Year



Michael Holder receives the TDF Forester of the Year award from Commissioner Johnson. Also pictured from left State Forester Jere Jeter, and from right Highland Rim District Forester Jeffrey Piatt.

Michael Holder, Assistant District Forester for the Highland Rim District, was named the Tennessee Department of Agriculture Division of Forestry's Forester of the Year

for FY2015. The award is presented annually to a division forester who exemplifies the highest level of professionalism in serving the citizens of Tennessee.

"Michael is a real asset not only to the Highland Rim District but also to the Division as a whole,"

State Forester Jere Jeter said. "He does an excellent job of keeping his finger on the pulse of wildland fire prevention, protection and suppression in the district. It is a special honor to be selected by your peers as Forester of the Year, and Michael is very deserving."

Holder received a Bachelor of Science degree from the University of Kentucky in 2004 with a major in Forestry and minor in Agriculture. He continued with UK for his first job out of college, collecting data on mineland reclamation reforestation studies. Following that, he worked on continuous forest inventory with a private consultant in Indiana and eventually worked for the Indiana Division of Forestry where he conducted inventory and forestland inspections.

"I have worked closely with Michael over the past 3+ years and have always found him to be knowledgeable in every facet of operation that TDF performs," said Jeffrey Piatt, Highland Rim District Forester. "He always asserts a positive 'can do' attitude. This assertiveness becomes contagious among his co-workers thus creating a good working environment."

In 2005, Holder began working for the Tennessee Department of Agriculture Division of Forestry as a

*Holder continued on page 20*

TN

## Forestry Crews Shift Gears from Wildfire Suppression to Ice Storm Cleanup

Just when Tennessee's spring 2015 fire season was beginning to take hold, winter stepped in and held its ground. A good portion of the state received a late season snow and ice storm and when the State Emergency Operations Center was activated, the Department and its Division of Forestry (TDF) took part. Crews that had been seeing an increase in wildfire activity exchanged their Nomex clothing and fire rakes for safety chaps and chainsaws to clean up debris caused by the storm's icing of tree limbs.

Damage reports were widespread and crews worked in several counties where roads were impassable. "The extent of the damage included citizens (including some Forestry employees) trapped in their homes, some with roofs that caved in and others without electricity, water, sufficient food supplies or an escape to main roads," said James Dale, Assistant District Forester with the division's Cumberland District. About 80 TDF personnel worked to clear debris over several days in mid-February across Cumberland, Fentress, Loudon, McMinn, Monroe, Morgan, Overton, Putnam, Roane, Scott and White Counties. "Hundreds of miles of roads in these counties were literally packed full of downed power lines (many still charged), broken power and telephone poles, ice, snow and timber," said Dale. TDF crews were supported by additional crews from other organizations including the Tennessee Department of Transportation and Volunteer Organizations Active in Disaster.

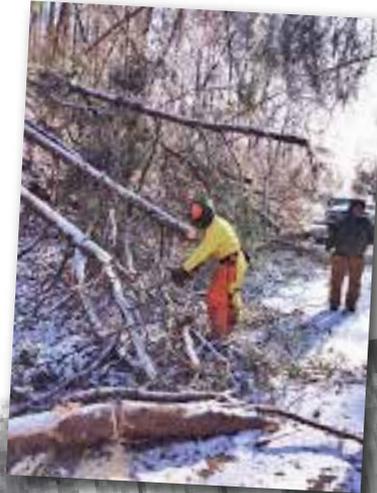
TDF crews have been through extensive training in the use of power saws, and have experience using the equipment on wildfires and work on state forests. However, the nature of this work is still dangerous.

There were two severe injuries reported by TDF personnel during this incident. "Removing hazard trees is in itself a dangerous job," said Nathan Waters, Assistant District Forester with the division's East Tennessee District. "Often, these removals involve utilizing training and experience to recognize potential dangers, but adding icy roads and cutting surfaces to the mix dramatically increases danger to workers." To further help

prevent injury, TDF crews have a tailgate safety meeting before each assignment where they review all safety procedures and discuss each worker's specific task. A site supervisor is also present to monitor all activity and ensure safe operations.

Despite the slow and dangerous nature of the work, clean-up teams were able to complete the emergency debris clearing. In addition to clean-up efforts, crews also delivered substantial food and water resources to areas of need.

"These crews are normally battling wildfires in Tennessee and other states. Their spirit in this emergency was superb, and their ability to get the job done was unparalleled, benefiting public and private agencies and the citizens of our state," Dale added.



TDF crews trade their fire rakes in for chainsaws to clear roads following an ice storm in February 2015.



## Wildland Fire Protection

The Division of Forestry protects forest resources from destructive fire so that the benefits of forests across the state can be utilized. It does this by preventing and suppressing wildfires, promoting hazard reduction activities, and supporting wildland fire training for volunteer fire departments and other wildland firefighters. The highest priority of this program is firefighter and public safety.

### Objectives for Year

- Develop Community Wildfire Protection Plan and Firewise communities.
- Hold a Tennessee Firewise Community workshop.
- Conduct fire suppression training.
- Conduct two Certified Burn Manager training classes.
- Begin screening excess property through the U.S. Department of Defense Fire Fighter Program (FFP).
- Increase number of burn permits issued online from BurnSafeTN.org.
- Coordinate safety inspections of facilities.
- Provide safety information (updates, messages).
- Investigate accidents/unsafe work practices.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Suppressed 554 wildfires that burned 7,968 acres, which is less than half of FY14.
- Issued 387,559 burn permits, which is an increase of 10% above FY14.
- 62,985 permits were obtained online from BurnSafeTN.org, an increase of 32% from FY14.
- Participated in TEMA Fixed Nuclear Facility exercises and tornado clean up in Campbell and Claiborne Counties.
- Held the first annual Tennessee Firewise Community workshop with members from 20 communities attending.
- Completed wildfire hazard mitigation projects in 5 communities (Laurel Mountain Lakes, Cobbly Nob, Shagbark, Lone Mountain Shores and Norris Shores) (see inset on next page).
- Conducted Firewise meetings and Firewise Days in 10 communities (see picture below).

### Unit Mission

***The mission of the Wildland Fire Protection Unit is to minimize damage caused by wildfire to forest resources and personal property while giving priority to firefighter and public safety.***



The Lone Mountain Shores Community in Claiborne County received recognition for becoming a Firewise Community USA.



## Wildland Fire Protection

- Produced the 2015 pocket and wall calendars, as well as other products that promoted fire prevention.
- Conducted wildfire prevention projects with Chattanooga Lookouts and Nashville Sounds baseball, University of Tennessee Chattanooga and Middle Tennessee State University football, and the Tennessee Titans.
- Screened and loaned Federal Excess Personal Property (FEPP) equipment to rural volunteer fire departments. There were 159 pieces of FEPP equipment placed with a total value of \$431,002.
- Excessed 22 pieces of FEPP property with a total value of \$289,440 through General Services Administration (GSA) sales.
- Began working with the FFP, which provides excess military property to fire departments for use in rural and wildland fire protection programs. A significant aspect of the FFP program is that the ownership of the equipment is passed from the federal government to the fire department. In addition, FFP can only be acquired for use in fire suppression, fire prevention, and related emergency services.
- Deployed 12 individuals and two, 20-person crews to federal wildfire assignments to California, Idaho, Montana, Idaho, Oregon and Washington.
- Provided 101 cost share grants to volunteer fire departments totaling \$259,826.
- Administered the work capacity test to assess fitness among Division firefighters.
- Conducted the Division's annual wildfire training academy for 12 new employees.
- Conducted the two Certified Prescribed Burn Manager Training Courses, with a total of 52 students in attendance.
- Participated in the 14th annual Tennessee/Kentucky Wildland Fire Academy, which offers advanced wildfire training for Division firefighters.
- Trained firefighters in the use of fire operations in the wildland-urban interface.
- Coordinated First Aid/CPR and Defensive Driving Training.
- Coordinated Citation (Badge) Training with the Agricultural Crime Unit.
- Coordinated safety inspections of facilities; Compiled and submitted OSHA Accident and Illness reports.

### Hazard Mitigation Projects

Hazard mitigation projects aim to reduce the wildfire risk in Tennessee's wildland/urban interface communities that have attained Firewise Communities status. These communities can apply

for hazard mitigation grants that cover such things as assessment costs and vegetation management work such as bush hogging, developing fire breaks, updating signage, etc.



The Top-of-the-World Community in Blount County observes its Firewise Day by removing and chipping woody debris.



Fuel removed in the Norris Shores Community of Union County makes this community safer from wildfires.



# Forest Business Services

## Economic Development

*Mission: Provide information on the availability and sustainability of the forest resources of the State to landowners, loggers, and industries.*

### Objectives for Year

- Recruit companies to utilize the Tennessee Wood Products brand.
- Prepare for implementation of the Timber Products Output (TPO) Survey.
- Complete forest resource and forest products profile for Southern Middle and Upper Cumberland Economic and Community Development Districts.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Recruited 11 companies to use the Tennessee Wood Products brand as a part of their marketing strategy.
- Delivered TPO Survey to over 300 primary wood products companies in Tennessee.
- Published 4 editions of the Tennessee Forest Products Bulletin, which provides information on delivered forest product prices at mills in Tennessee.
- Completed both Southern Middle and Upper Cumberland Economic and Community Development District Resource Profiles (see inset).
- Analyzed opportunities for developing a facility which would utilize pine sawtimber resources in west Tennessee.
- Processed 138 requests for information on forest products pricing and availability, assistance in preparing for a timber sale, and help in querying the Forest Inventory and Analysis database.
- Provided three companies with logistics for locating forest industry facilities in the state, one of which set up operations in Humphreys County.

## Unit Mission

***The mission of the Forest Business Services Unit is to improve the utilization and conservation of Tennessee's forest resources by making available information and analysis that will aid landowners, resource managers, and businesses in making allocation decisions.***



Upper Cumberland Region Forest Cover



Upper Cumberland Region Forest Industries

## Regional Resource Profiles & Economic Impact Analysis

The Forest Business Services Regional Resource Profiles & Economic Impact Analysis highlight the region's forest cover and a few of the forest industries that are buying wood and hiring workers in various regions of the state. Profile areas mirror Economic and Community Development Districts in an effort to better partner with TNECD to leverage combined resources.



Upper Cumberland Forest Products Companies: Ames Tool Company, White County Lumber Company, and Mayfield Lumber Company



## Forest Business Services

### Forest Inventory & Analysis

*Mission: Monitor the sustainability of Tennessee's forest resource by measuring the species, size, and health of trees.*

Forest Inventory and Analysis (FIA) is a continuous census of forest resource use, health, volumes, growth, and removals of forests. It also conducts a census of private and public landowners who manage the resource and gathers information from loggers and manufacturing facilities in the state that utilize the wildlife, water, recreation and wood produced by forests.

#### Objectives for Year

- Obtain tree measurements on 800 plots.
- Hire new field foresters to replace those who moved to new locations or jobs.

#### Major accomplishments for July 1, 2014 – June 30, 2015

- Measured and recorded tree counts, heights, diameters and health related data on 283 plots across the state. The number was down due to the loss of all experienced field foresters during the year.
- Began search to hire four field foresters to serve on the FIA team.



### Water Quality

*Mission: Improve the quality of surface and sub-surface water using forest cover as a filter and buffer for industrial, urban and agricultural point and non-point pollution sources.*

Water is a valuable product of the forest. The benefits are difficult to measure, but changes in quality and quantity are usually easily observed. Forests act as buffers and filters that can reduce the damage caused by practices from other land uses such as urban runoff, and protect stream banks from erosion caused by flooding.

#### Objectives for Year

- Increase monitoring of logging operations through use of curtesy checks.
- Locate all harvesting sites during the 2012 – 2014 period using a computerized feature extraction program based on changes in forest cover from aerial photographs.

#### Major accomplishments for July 1, 2014 – June 30, 2015

- Conducted 802 courtesy checks through site visits to harvesting operations with landowners, foresters and loggers. Worked with another 239 contacts for pre-harvest assistance and site visit follow-ups.
- Located forest disturbances across the entire state using computerized feature extraction software (see inset).
- Investigated and made recommendations on 83 water quality complaints, 19 in cooperation with the Department of Environment and Conservation (TDEC).
- Prepared 1,279 written forestry best management practices (BMP) recommendations for landowners in forest management plans and through timber sale assistance by Area Foresters.
- Presented 126 classes in conferences and workshops for 8,776 participants where forest water quality and BMP were an important part of the discussion.
- Presented 17 BMP sessions in cooperation with the TN Forestry Association for the Master Logger Program, training 400 loggers with funding received through the Tennessee Agricultural Enhancement Program.

#### Extracting Timber Harvest Sites from Aerial Imagery



The Division of Forestry is using computerized image analysis to locate all logging sites between 2012 and 2014 in an effort to better monitor BMP implementation. The program extracts forest canopy from National Agriculture Imagery Program (NAIP) photos in 2012 and, separately, clearings in photos from 2014.

Pictured are pine plantation thinning operations in Hardin County.



## Forest Health

The Division works to meet the constant challenges in the forest health arena. The difficulty of managing forest pests has been made more complicated by the ever-increasing number of native and non-native pests encroaching on Tennessee's forests. Coordination with other agencies and interest groups is a critical part of the Division's response.

### Objectives for Year

- Manage grants and contracts associated with the detection and control of gypsy moth, hemlock woolly adelgid, southern pine beetle, and exotic plants.
- Conduct gypsy moth detection, eradication trapping and treatment.
- Facilitate Tennessee Hemlock Conservation Partnership and organize the treatment of hemlock woolly adelgid both chemically and biologically.
- Provide support to the department's Consumer and Industry Services Division and USDA Animal and Plant Health Inspection Service in detection and monitoring of thousand cankers disease, emerald ash borer and other exotic forest pests.
- Provide technical assistance to forest industry and private landowners on forest health related issues and forest management strategies that would improve the health of their forest.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Conducted southern pine beetle (SPB) trapping in Chester, Marion, Rhea, and Wayne Counties where pine is a major component of several forest types. Survey indicated SPB populations are on the rise despite the presence of the clerid beetle which is their natural enemy. SPB populations are known to be on 10-12 year cycle.
- Detected 14 gypsy moths in 7 counties.
- Placed 7,450 gypsy moth detection and delimiting traps in 94 counties.
- Provided grants to eradicate exotic invasive plants at Radnor Lake State Park, Warner Parks, and Bells Bend Park.
- Conducted aerial surveillance operations in March 2015 to assess damage due to the Valentine's Day ice storm. 251,241 acres were surveyed across 9 counties where damage type ranged from crown damage to branch breakage to uprooting.
- Monitored 95 counties for forest health related issues and reported over 50 occurrences per month.
- Conducted statewide forest health training in May 2015.
- Applied for and received a cooperative hemlock woolly adelgid (HWA) grant that would fund a 3 person seasonal crew for 3 years. This crew will be responsible for chemically treating HWA on public lands, providing support to the biological control program managed by University of Tennessee, and facilitating events organized by the Tennessee Hemlock Conservation Partnership.
- Began releasing emerald ash borer (EAB) parasitoids in Smith County. By June 2015, 17,378 parasitoids were released in 5 release events (see inset on next page).
- Conducted community outreach meetings to educate forest industry and private landowners on the impacts of the expanded EAB quarantine to 18 new counties.

### Unit Mission

***The mission of the Forest Health Unit is to enhance the health of Tennessee's forests and minimize forest resource losses caused by forest pests through effective prevention, detection, evaluation, suppression, and technical assistance measures.***



# Forest Health

## EAB Parasitoid Release

The Division worked with the University of Tennessee and the Army Corps of Engineers in Smith County to release three species of parasitoid wasps that prey on emerald ash borer (EAB). During this fiscal year, TDF personnel released 17,378 wasps in 5 release events at this site, which is one of

several areas throughout the infested zone of Tennessee where EAB parasitoids are being released. Recovery operations will be conducted and monitoring traps will be installed each year to test the efficacy of the release and the success of the predation.



Ash tree with one ash bolt containing EAB larvae parasitoids and two "oobinators" containing EAB egg parasitoids.

EAB Parasitoids Released	
Species	Total
<i>Oobius agrili</i>	5,200
<i>Spathius agrili</i>	525
<i>T. planipennisi</i>	11,653
Grand Total	17,378



Adult EAB parasitoid *Spathius agrilli*



TDF personnel Lannie Newberry and Bob Linville releasing adult EAB parasitoids in Smith County.



## Forest Resource Management - Rural

### Forest Landowner Assistance

*Mission: Encourage and assist landowners to implement forest management practices that yield healthy, productive forests.*

The landowner assistance program provides technical assistance, forest planning assistance, cost-share assistance, forest health assessments and forestry information to private, non-industrial forest landowners. The Division assists landowners in achieving forest resource conservation and forest management objectives on their land.

#### Objectives for Year

- Strengthen forest management program administration and information gathering process.
- Focus on providing excellent customer service to Tennessee's forest landowners.
- Optimize cost-share funding utilization.
- Update program policies and procedures manuals.

#### Major accomplishments for July 1, 2014 – June 30, 2015

- Partnered with the Promark/D'Addario Company to provide 75,000 hardwood tree seedlings from the Division's nursery to 33 Tennessee landowners at no cost.

#### Forest Management Planning

- Provided 1,279 forestland inspections to landowners (853 were first time assists).
- Wrote 66 Forest Stewardship plans addressing 12,838 acres.
- Recognized implementation of 4 Stewardship plans improving 503 acres.
- Wrote 926 other forest management plans addressing 86,393 acres.

#### Forest Stand Prescription Planning

- Wrote 287 prescription plans improving 17,244 acres.

#### Forest Stand Prescriptions Implemented

- Assisted 39 landowners in planting 650 acres of hardwood trees.
- Assisted 68 landowners in planting 4,031 acres of pine trees.
- Assisted 161 landowners in other forest improvement activities on 12,322 acres of forestland.

### Unit Mission

***The mission of the Forest Resource Management Unit is to promote and advance sustainable forest management on non-industrial private forestlands for the multiple uses and benefits provided by forested landscapes. The Unit also works to assist and encourage municipalities and private urban landowners to establish, improve, and maintain urban forest resources.***



### Forest Legacy

*Mission: Protect environmentally important, private forestlands threatened with conversion to non-forest uses.*

The Forest Legacy Program identifies and protects environmentally important private forestlands that are threatened by conversion to non-forest uses. Program emphasis is to maintain well-managed, working forests on the landscape.

#### Objectives for Year

- Secure funding for Sherwood Forest Fee purchase.
- Close on the Carter Mountain Conservation Easement Forest Legacy Tract.

#### Major accomplishments for July 1, 2014 – June 30, 2015

- Secured \$3 million for Sherwood Forest Fee purchase (4200 acres); \$960,000 pending funding in FY16.
- Implemented close-out on Carter Mountain Conservation Easement (4000 acres).



## Forest Resource Management - Urban

### Urban/Community Forest Resource Assistance

*Mission: Assist and encourage municipalities and private urban landowners to establish, improve, and maintain urban forest resources*

Urban forestry emphasizes the important role trees play in communities: from the many intangible benefits to the economic benefits of air pollution abatement, heat island mitigation, and storm water runoff reduction. To attain these benefits, the urban forestry program strives to provide assistance to Tennessee's cities and towns, where the majority of the population lives. Urban Forestry impacts people where they live.

#### Objectives for Year

- Provide urban and community forestry assistance to cities and towns and to green industries (arborists, grounds managers, landscape architects, others) that impact the management of urban forests.
- Administer grants, Tree City USA, Tree Line USA, Tree Campus USA, Champion Tree and related programs.
- Complete canopy cover analyses for Tennessee communities.

#### Major accomplishments for July 1, 2014 – June 30, 2015

- Completed 9 Tennessee Agriculture Enhancement Program (TAEP) community tree planting grants that planted 872 trees.
- Made 112 assists to 57 cities and towns, and 94 secondary assists to arborists, nurseries, landscape architects, schools, grounds managers and other related entities that have an impact on urban forests.
- Partnered with the Tennessee Urban Forestry Council (TUFC) to host the statewide Urban Forestry Conference in Nashville and State Tree Climbing Championship for arborists in Sevier Park.
- Provided assistance to the TUFC in support of their programs. Successes include:
  - ◇ 90 recognized arboretums across the state that include schools, businesses, parks & neighborhoods, and cemeteries.
  - ◇ TUFC & state urban staff continue outreach to the city officials at the Tennessee Municipal League (TML) conference.
  - ◇ Urban & Community Forestry (U&CF) pass-through grants went to support a part-time staff position, fund 3 workshops, and the annual conference.
- Completed a canopy cover analysis for the City of Crossville in conjunction with urban forestry students from the University of Tennessee. Also completed a federally funded canopy analysis for the Memphis area that extended into Mississippi and Arkansas.
- Recognized 41 cities and towns as Tree City USA. Tennessee's state ceremony was celebrated in Chattanooga, TN on March 6th.
- Recognized 19 utility companies as Tree Line USA. Tennessee remains #1 in the country for utilities which includes municipal and cooperative (see inset).
- Recognized 6 campuses as Tree Campus USA.
- Conducted 18 training sessions with 2,262 hours of instruction.

### Appalachian Electric Cooperative Celebrates 10 Years as Tree Line USA Utility



Appalachian Electric Cooperative (AEC) celebrated a decade of receiving recognition as an Arbor Day Foundation 'Tree Line USA' utility. The Tree Line USA program features a strong public education component, designed to educate Co-op members about proper site selection, planting, and maintenance of trees. The award is co-sponsored by the National Association of State Foresters and is only given to utilities that demonstrate quality tree care, making sure that the trees they trim are pruned in such a way as to remain healthy.

Gathered on the football field at Carson-Newman College (CNC) Burke-Tarr Stadium are, left to right: Tom Simpson, area forester with TDF; AEC Vice-President of Engineering & Operations Joe McCarter; CNC's Athletic Director Allen Morgan; AEC mascot "Louie the Lightning Bug;" and AEC Director of Member Services Mitch Cain.



## Reforestation

### Seedling Nursery

*Mission: To provide high quality conifer and hardwood seedlings to the state's landowners at a competitive price.*

The Division of Forestry's seedling nursery, located in Delano, produces forest seedlings that are available for sale to landowners in Tennessee. These seedlings are adapted to growing conditions found in the state and are used primarily for reforestation and forest conservation projects. Approximately one-half of the 80 acres available for seedling production at the nursery are used for this purpose each year. The remaining seedbed area is planted in cover crops to ensure the long-term productivity of the nursery soil.

### Objectives for Year

- Increase seedling sales revenue.
- Actively market Division seedlings to new agencies/organizations and new venues.
- Visit field staff periodically to discuss current seedling quality, use and dissemination.
- Achieve a customer satisfaction rating of 95% or greater.
- Develop new value added seedling opportunities.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Sold 3.2 million tree and shrub seedlings to generate sales revenue of \$607,000. This revenue was \$54,000 (10%) greater than the revenue from the previous season.
- Achieved a customer satisfaction rating of 99% based on the results of our annual customer satisfaction survey.
- Worked with the Tennessee Department of Agriculture's computer specialists to further develop our on-line seedling sales system that allows the public to order seedlings via the internet.
- Published advertisements for the nursery in the TWRA Fall Hunting Guide, Tennessee Home and Farm Magazine, Ag Insider Magazine and Tennessee Magazine.
- Staffed exhibits at the National Wild Turkey Federation Annual Convention, the Music and Molasses Festival and a meeting of the Tennessee Christmas Tree Growers Association.
- Worked with District personnel and Nashville office staff to ensure that seedling order forms were distributed to all natural resource agency/organization offices in the state.
- Provided information and materials for displays at state and local fairs and other events to promote seedling sales and the Division's reforestation programs.
- Offered for sale for the first time Sawtimber Elite loblolly pine seedlings. These seedlings are produced from genetic families in our seed orchards that have characteristics making them more suitable for sawtimber production than other families, such as improved straightness and stem form.
- Worked with the Tennessee Environmental Council to provide and distribute seedlings for the first annual 50K Tree Day. Cooperating agencies and partners planted 50,000 seedlings in a single day during this event (see picture).

### Unit Mission

***The mission of the Reforestation Unit is to provide quality, affordable seedlings (genetically improved where feasible) to Tennessee landowners and to optimize genetic improvements to increase the productivity of the state's forest resource.***



TDEC Commission Martineau (left) and TDA Commissioner Johnson (right) assisted TN Environmental Council with their 50K Tree Day at the Mill Creek Greenway in Nashville.



# Reforestation

## Tree Improvement

*Mission: To genetically improve the forest plantations of Tennessee through a program of breeding, testing, selection, and orchard management for important tree species; and to provide the state nursery with genetically improved seed from these orchards.*

The Division manages over 200 acres of seed orchards and more than 214 acres of progeny tests at various locations around the state. Currently, the Division is actively working with 7 hardwood and 4 conifer tree species. Tennessee is also a member of the North Carolina State University – Cooperative Tree Improvement Program (NCSU-CTIP). Membership allows accelerated breeding and establishment of genetically superior seed orchards. Seed produced from these orchards is used to grow seedlings tailored for survival and fast growth on Tennessee's landscape.

### Objectives for Year

- Establish loblolly pine full-sib performance, rust resistance, and form quality (PRS) test at the West TN Tree Improvement Center (WTTIC).
- Thin Nuttall and Northern Red Oak progeny tests at the East TN Nursery (ETN) to promote seed production.
- Identify and monument Sawtimber Elite selections in the 3rd Cycle loblolly orchard at the Pinson Reforestation Complex (PRC).
- Convert shortleaf pine progeny test at Scott State Forest for future seed production.
- Maintain, monitor, and manage orchards to promote healthy trees.
- Harvest seed from producing orchards as needed by the nursery program.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Planted NCSU-CTIP loblolly pine full-sib progeny test at the WTTIC.
- Removed 200 trees from the Nuttall and Northern Red Oak progeny tests at the ETN for conversion to seed production areas.
- Identified and tagged "Sawtimber Elite" selections in the loblolly orchards at the PRC.
- Harvested 1,750 pounds of hybrid chestnut from the seed production area at the ETN.
- Harvested 2,526 pounds of sawtooth oak acorns from seed production areas at the ETN.
- Harvested 280 bushels of advanced generation loblolly pine cones at the ETN which produced 361.2 pounds of "Sawtimber Elite" loblolly pine seed.
- Harvested 1,020 bushels of advanced generation loblolly pine cones at the ETN and PRC which produced 1,126.5 pounds of 2.0 generation loblolly pine seed.
- Harvested 900 bushels of 3rd Cycle loblolly pine cones at the PRC which produced 1039.1 pounds of pine seed.
- Harvested 400 bushels of white pine cones at the ETN which produced 134.6 pounds of improved white pine seed.
- Collected approximately 21.2 pounds of seed from wild type plum at the WTTIC and ETN.
- Harvested 1,110 pounds of white oak acorns and 63.6 pounds of seed from various wild type species at the ETN.
- Converted shortleaf pine progeny test at Scott State Forest for future seed production.
- Measured 2010 PPMX and 2011 TDF open pollinated loblolly progeny tests at the WTTIC.
- Collected scion wood and pollen from loblolly pine selections.
- Calculated estimated performance gains for program species.



## State Forest Management

The Tennessee Department of Agriculture Division of Forestry manages 15 state forests totaling 168,316 acres based upon multiple-use and sustainable forest principals. The forests are quite varied, ranging from mountain coves to cedar glades to bottomlands along the Mississippi river.

### Objectives for Year

- Complete 15 Compartment Plans.
- Hold 2 demonstrations, tours or field days.
- Harvest 1,362 acres of timber.
- Generate \$3.1 million in timber sales revenue.
- Complete remaining State Forest Inventory Plots.
- Map and designate for public use state forest roads.
- Complete timber sales and Compartment Plan writing training.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Completed and approved 7 Compartment plans.
- Gave a tour at Natchez Trace for the local state representative.
- Completed 16 timber sales for a total of 1,229 stand acres yielding 8.7MM board feet with an additional 2,550 tons of pulpwood.
- Collected \$1,883,781 in timber sale revenues.
- Planted seedlings on 134 acres of state forest lands.
- Filled the State Forest Unit Leader position.
- Filled two State Forest Forester positions and one Area Forester with state forest responsibilities.
- Mapped all state forest access roads and determined 80% of their designated public uses.
- Completed training sessions for timber sales and compartment plan writing for state forest foresters.
- Updated the Quick Guide for Writing Compartment Plans.

### Unit Mission

*The mission of the State Forest Management Unit is to provide for the multiple use management of all resources on State Forest lands such that those resources are protected and utilized in the combination that best meets the long-term needs of the people of Tennessee.*



The Division seeks to achieve healthy, sustainable and well-managed forests throughout the state forest system and to demonstrate proper management strategies. These images show recent timber harvests at Natchez Trace State Forest. (Left) Logging slash from treetops is left on the forest floor to provide cover for wildlife and will rapidly decay to become enriched soil providing nutrients for the next stand of trees. (Right) Revegetating skid trails with grass mixes helps to limit soil loss and reduce nonpoint source pollution. (Center) A typical clearcut regeneration harvest on state forests averages 22 acres in size. Center inset provides an example of forest growth and density 20 years following a clearcut regeneration harvest.



## Forest Data and Technology

The Forest Data and Technology Unit is charged with the task of seeking out and implementing relevant technology. The Unit is also responsible for maintaining relevant databases and presenting data in a format for further analysis. Critical work areas include updating information systems and getting new mapping and remote sensing technology into the hands of field personnel. Adopting such technology will lead to better communications, increased efficiency, and strengthened credibility.

### Objectives for Year

- Develop/update key TDF data gathering and reporting systems.
- Develop recommendations to provide acceptable internet connections to locations where connection and/or bandwidth speed is substandard.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Utilized Green Tree (Division's database system) to help with statewide asset inventory, reports and tracking of items scanned.
- Developed Forest Health Outreach Activity database for staff entry.
- Developed Consulting Foresters Database for online directory.
- Developed Tennessee Wood Products brand online company registration, webpage and database.
- Developed cost-share tracking database in Green Tree.
- Converted the Microsoft Excel-based Customer Service Reports to Green Tree Centralized Database.
- Increased all district offices Local Area Network (LAN) connections from 1.5 Mbps to 3.0 Mbps.

### Unit Mission

***The mission of the Forest Data and Technology Unit is to facilitate the development and utilization of technology to meet the needs of the Division's core businesses. The Forest Data and Technology Unit has the responsibility to implement state of the art technology, manage and compile data, and administer the Division's Forest Inventory and Analysis, and Geographic Information Systems programs.***



## Radio Communications

### Objectives for Year

- Complete microwave analog to digital conversion for East TN and move forward on Cumberland District conversion.
- Work with Department of Safety and Homeland Security on the Tennessee Advanced Communications Network buildout on Division sites.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Resolved a major radio interference problem in the Cumberland District that has been going on for 3+ years.
- Replaced antennas and cables at Frozen Head radio site that were damaged from February's ice storm.
- Activated East TN digital microwave network.
- Installed and activated Cumberland District's microwave network.
- Transferred all radio equipment to new building and tower at Cookeville, Standing Stone, Whitehouse, and Natchez Trace office/sites.



## Forestry Communications & Outreach

The goal of the Forestry Communications & Outreach Unit is to inform and educate the multiple audiences by providing them a better understanding of forestry as a discipline and the role that the Division plays in maintaining a healthy forest resource. In turn, society receives a stream of essential ecological benefits. The program also helps to foster communication within the Division, a critical function of a healthy organization.

### Objectives for Year

- Raise awareness about important and timely forest resource issues.
- Educate our youth on the importance of trees and forests in our rural lands and within our communities.
- Complete the Clean Water for Urban Forests Program.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Held 4,339 educational outreach activities reaching 151,039 children and adults statewide.
- Facilitated the 66th annual Forestry Camp for 43 Future Farmers of America high school students.
- Produced 10 news releases pertaining to relevant topics including: forest pests, wildfire danger, burn permit requirements, dangers of moving firewood, employee awards, tree planting and urban forestry.
- Gave multiple radio and television interviews addressing Division programs and topical issues.
- Promoted division services and outreach campaigns across multiple media outlets. This included advertising campaigns for wildfire prevention, Don't Move Firewood, and tree seedlings.
- Maintained fire prevention website - BurnSafeTN.org. The site had 288,736 page views from 140,278 visits.
- Maintained forest health website - ProtectTNForests.org. The site had 9,060 page views from 5,935 visits.
- Maintained the Division's YouTube Channel. The number of video views was 11,194.
- Posted periodic status updates related to forestry on the Department's Facebook and Twitter accounts.

### Clean Water for Urban Forests Program

- Produced the "Tennessee Urban Riparian Buffer Handbook: A Practical Guide to Establishing Healthy Streamside Buffers" in partnership with the University of Tennessee's Water Resources Research Center (see picture).

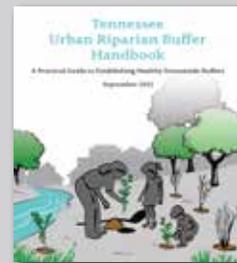
*Clean Water continued on page 19*

### Unit Mission

***The mission of the Forestry Communications & Outreach Unit is to communicate clearly and accurately to the Division's publics forestry information necessary to accomplish the Division's mission, and to optimize in-house communications.***

### Tennessee Urban Riparian Buffer Handbook

The Handbook was developed to help those who want to protect Tennessee's urban waterways by establishing buffers across our state's rapidly changing landscape. It contains:



- » information on establishing riparian buffers in a range of urban settings
- » a step-by-step guide on how to plan, conduct and evaluate a volunteer riparian planting
- » a set of handouts that can be used when preparing volunteers and community partners for the coordination and implementation of riparian plantings
- » a regionalized riparian buffer plant list

The handbook was developed as a result of the Clean Water from Urban Forests Program. It began in 2011 as a collaborative federal, state and local effort to promote water quality in urban landscapes through conservation activities that included the establishment of riparian buffers in eight priority watersheds in Davidson County.

## Administration

Spread across the state and administered from four district and one reforestation offices, the 325 employees of Department of Agriculture's Forestry Division have responsibilities in nine separate programs. Effective planning, priority setting, and communication within the Division are crucial to organizational effectiveness. Assistant State Foresters and the Budget & Planning Unit Leader work with staff to refine systems that improve customer services and operational efficiencies.

### Objectives for Year

- Improve federal grants management processes.
- Plan and allocate budget (expenditures, revenues, reversion).
- Report budget status quarterly.
- Maintain accurate databases on employees, facilities, vehicles and equipment.
- Develop Customer Focused Government Plan.
- Maintain TDF partnerships.
- Assist employees in getting the supplies and equipment they need when needed.

### Major accomplishments for July 1, 2014 – June 30, 2015

- Restructured grants and purchasing processes and hired excellent individuals to create a more effective process.
- Implemented sub-recipient monitoring process for federal grants.
- Reported budget status quarterly.
- Reviewed phone bills for compliance with standards.
- Purchased and installed winches on 3 dozers in East TN.
- Placed orders for vehicles and equipment.
- Initiated process to shift away from our old division logo to a new state brand.
- Eliminated AT&T cell phones.
- Completed annual property inventory and began shifting to a new set of inventory systems.
- Processed FEMA worksheets for Ice Storm recovery work.
- Attended personnel evaluation trainings.
- Administered Project Learning Tree program.
- Participated with Agriculture/F&A purchasing agent team to improve processes.

### Unit Mission

***The mission of the Administration Unit is to assist the State Forester in increasing the effectiveness of management, the quality of customer services, the efficiency of operations, and the cost effectiveness of Division programs.***

### *Clean Water continued from page 18*

- Facilitated close-out of this federally funded program. Final outcomes included:
  - ◊ Managed 170 tree planting projects on 50 sites resulting in the planting of 27,706 trees along 5 miles of riparian buffers covering 23 acres in Davidson County.
  - ◊ Involved 2,792 volunteers accounting for 7,654 volunteer hours served towards the project.
- Attracted and fostered program involvement with numerous partner and volunteer organizations.
- Sponsored 3<sup>rd</sup> Annual Nashville Urban Runoff 5K and Water Quality Festival.

**Rickman continued from page 4**

“Jason Rickman has gone far beyond the call of duty in his job performance in the Cumberland District, having tackled many of the complex fire and weather data systems that we use as well as providing expert knowledge of equipment issues for field personnel. He is highly respected for his professionalism, and the Division of Forestry is very fortunate to have an employee of his caliber,” Assistant District Forester James Dale said.

Rickman is a West TN native and moved to Trousdale County where he went to high school in Hartsville.

“I love my job and my career,” Rickman said. “I get to meet a lot of people and talk with so many all across the state. As we get new people on-board I try to bring out the best in them and train them to be as good as those that we lose to retirement.”

Rickman and wife, Jennifer, have a son Aiden (6) and step-daughter Macey (26). His family resides in Lebanon. Outside of work Jason likes to spend his free time with his kids and family and shopping for antique treasures.

**Holder continued from page 4**

Forest Inventory & Analysis Forester based out of Jackson; a job he describes as being “waste deep in swamps counting trees.” Holder now serves as Assistant District Forester in the Division’s Highland Rim District where he’s been since 2012. In this role, he is involved in many aspects related to administration on the district level, but primarily works with fire suppression and prevention activities, as well as coordination of training for TDF’s field staff in that district.

“I really enjoy the work that I do,” said Holder, speaking about the forestry profession and working with TDF. “But more than that, I enjoy the people I get to work with. As Assistant District Forester I try to make sure they have the tools and training they need to work safely and efficiently.”

Holder is originally from Trenton, KY and currently lives in Clarksville. He and his wife, Jaime, have one son, Jensen (4). Outside of work and family he likes to bow hunt.

**Forestry Commission Duties and Functions**

The Tennessee Forestry Commission was established by the legislature under T.C.A. 11-4-201 to:

1. Nominate candidates for State Forester.
2. Review, approve and submit the annual budget of the Forestry Division to the Commissioner of Agriculture.
3. Make an annual report to the Governor, Commissioner of the Department of Agriculture and the Senate Energy, Agriculture, & Natural Resources Committee and the House Agriculture & Natural Resources Committee.
4. Recommend to the General Assembly legislation to protect, conserve and develop the forest resources of the state.
5. Approve the Division’s comprehensive long-range plan for the state’s forest resources.
6. Establish state forestry policies that will enable the Division to manage its programs.
7. Include in budget recommendations those goals and objectives necessary to implement state forestry policies.

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