Actions and Activities for FY2014

The Tennessee Forestry Commission met three times during the 2014 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 during the year. The Commission discussed and took action on the following matters:

- Discussed and received comments on the inconsistency of log scale standards.
- Discussed and received comments on licensing for professional foresters.
- Discussed and received comments on the interpretation of the Greenbelt Law.
- Discussed and received comments on the status of the completion of the E-Commerce Online Seedling Ordering.
- Discussed and received comments on the TN Wood Products branding initiative, logo, marketing, and implementation procedures.
- Presented the Commission’s Annual Report to Tennessee General Assembly’s Senate Energy, Agriculture, & Natural Resources Committee and the House Agriculture and Natural Resources Committee.
- Reviewed and approved the Division of Forestry annual activities report for FY2013.
- Discussed and voted on the Nominating Committee’s nominations for election of officers.
- Discussed and received comments on the 20/20 Plan for sustainable harvest as it related to the timber sales revenue on the state forests.
- Discussed and received comments on the forest legacy program review.
- Discussed and received comments on the Emerald Ash Borer federal quarantine and how it restricts ash from being moved to non-quarantined areas from quarantined areas.
- Discussed and voted to not increase prices for the 2013-14 seedling price schedule.
Welcome

I am pleased to present the Tennessee Forestry Commission FY 2014 annual report. Forests in Tennessee face many challenges such as new forest pests, invasive species, declining forest quality, wildfire, loss of markets and more. As you will see in this report the Division of Forestry is doing an outstanding job of addressing these issues and more, as they have for 100 years.

The Forestry Commission has volunteer members that represent small landowners, large landowners, conservation organizations, pulp and paper manufacturers, hardwood manufacturers and the public at large. We are a trusted resource to the Governor, Legislature and Department of Agriculture.

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's economy. Working together we can insure forestry continues to provide many benefits into the future.

Robert S. Qualman
Chairman
Tennessee Forestry Commission

Tennesseans are fortunate to live in a state rich in forest resources that provide a vast array of benefits for its citizens. Wood products, wildlife habitat, recreation, clean air and water are so important to our livelihood and quality of life. We are also fortunate to have a Division of Forestry whose workforce now has collectively spent a century conserving, protecting and enhancing these forest resources.

This report, presented by the Tennessee Forestry Commission, reflects the hard work done by the employees of the Tennessee Department of Agriculture Division of Forestry in addition to the actions and activities of the commission during the state's 2014 fiscal year. In it, you are sure to see the diversity of the services offered by the division and all that they accomplished.

The department is proud of the Division of Forestry and its men and women who work so hard to ensure that our future generations have access to healthy, vibrant forests and all of the benefits those forests provide. I sincerely hope that you take the time to review this report and recognize just how much the services provided by the division improve our quality of life.

Julius Johnson
Commissioner
Tennessee Department of Agriculture
The highlight of 2014 was the celebration of the one hundredth anniversary of the Division of Forestry. It was in 1914 that R.S. Maddox was appointed to serve as Tennessee’s first state forester. He established two goals for forestry in those early days, 1) to protect the resource from destructive forest fires and 2) to reforest lands that were bare due to destructive logging and farming practices.

It is encouraging to drive across this great state today and see how resilient our forests are and to know that professional foresters and technicians alike have been successful in slowing the destruction caused by wildfire and successful in replanting and regenerating hardwood and pine forests in places where once bare soil dominated the landscape. While all the success cannot be attributed to the Division of Forestry, we know that in some measurable ways the agency has made a positive impact on the forest resources of the State.

Our state forest system is made up of 15 individual forests totaling 168,000 acres that are being managed wisely for a variety of objectives; our fire management personnel are the best equipped and trained since 1914; we have more pests today that have the potential to destroy our forest than at any time in our history but we are equal to the task with technology and training; there are a half million landowners who can use our expertise to best manage their privately owned forests and we are meeting their needs through one on one assistance and the use of social media; quality of life in our cities and towns has been enhanced through the presence of trees on the urban landscape and we are working with more municipalities each year; and we are still producing the highest quality hardwood and pine seedlings that Tennessee landowners can plant.

I am so proud of our full-time and seasonal employees whose commitment make the Division of Forestry not only a great place to work but a place where work gets done that impacts our world today and for generations to come.

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

2014 Marked a Century of Service by the Division of Forestry

In 2014, the Division of Forestry (TDF) celebrated a century of forest conservation, protection and enhancement. Tennessee’s first state forester began work September 1, 1914 with a focus on wildfire control and reforestation of ‘waste’ land. Today, the focus is still on wildfire control, but also on promoting forestland values and benefits, forest health and forest productivity.

The Division’s humble beginnings were in the statute for the State Geologic Survey to conduct “An investigation of forests, streams and water powers of the state, with special reference to their conservation and development for industrial purposes.” To carry out the purposes of these two provisions, the Geological Commission established a Forestry Division on the Survey on February 17, 1914. Mr. R.S. Maddox of Lincoln County, Tennessee, a graduate of the Yale School of Forestry, and recently employed by the U.S. Forest Service, was put in charge and began work in September of that year, with instructions to devote a large part of his time toward aiding in the reclamation of the gullied lands of West Tennessee. He would also make studies of the general forest conditions of the state. At that time, Tennessee was the second state in the South to create a Division of Forestry.
Denny Parker was named the Tennessee Department of Agriculture Division of Forestry’s Employee of the Year for FY2014. The award is presented annually to a division employee who shows outstanding efforts and work accomplishments for a particular year.

“Denny has been a tremendous asset in the Highland Rim District. The technical and professional staff there, along with the citizens they serve, is fortunate to have such a dedicated individual working with them,” State Forester Jere Jeter said.

Parker has served the division’s Highland Rim District since 1989 as a Forestry Aide 2. He is primarily charged with fire suppression duties as a dozer operator. When there are no fires to suppress, he regularly works alongside Area Forester Stephen Pears assisting landowners with the management of their forests.

“Denny’s ability to lead projects – including moving a fire tower from Sullivan’s Ridge to Ellington Ag Center in Nashville for display, construction of a mobile fire tower for use at parades, and designing highly crafted wooden service awards for fellow division employees – while also performing his regular duties is commendable,” District Forester Jeffrey Piatt said.

Parker is a native of Houston County where he grew up and went to school in the small community of Erin, TN.

“I feel fortunate to work with a lot of great people here at the division,” Parker said. “We do so many different things like fight wildfire, help landowners manage their trees and forests, take Smokey Bear to schools to teach them about fire prevention, among other things – the work never gets boring.”

Parker and his family reside in Houston County. Outside of work Denny likes to spend his free time woodworking.

Tom Simpson, East Tennessee Regional Urban Forester, was named the Tennessee Department of Agriculture Division of Forestry’s Forester of the Year for FY2014. The award is presented annually to a division forester who exemplifies the highest level of professionalism in serving the citizens of Tennessee.

“The citizens of Tennessee are fortunate to have such a dedicated individual working to improve the sustainability and quality of our urban forests,” State Forester Jere Jeter said. “Tom’s motivation to use his passion and talents above and beyond his scope of work is commendable.”

As the division’s East Tennessee Urban Forester, Simpson works with local municipalities as large as Knoxville and as small as Harrogate. He helps cities to organize tree boards, conduct tree inventories and develop ordinances among other responsibilities. He also helps to coordinate Tree City USA, TreeLine USA and Tree Campus USA programs. In fact, Simpson was instrumental in making Tennessee #1 in the nation in number of recognized TreeLine USA utilities. Tom is an International Society of Arboriculture Certified Arborist, and has vast knowledge on tree insect, disease, and environmental issues with respect to urban trees.

Simpson was born and raised in the Knoxville area. He received his Bachelor of Science and Master of Science degrees in Forestry from the University of Tennessee in 1974 and 1977 respectively. His professional career has included work in consulting, industrial, utility, and urban forestry. He worked for the division from 1980 to 1983, and returned in 1998 as the division’s Regional Urban Forester in east Tennessee.

“I couldn’t design a job any better than this,” said Simpson, speaking about the forestry profession. “There’s a great deal of flexibility with this job including firefighting, tree care assistance and teaching kids about the value of our natural resources. Plus, we have some of the best people to work with here in the division. I feel great about the work we do and the services we provide to the public.”

Simpson and his wife reside in Knoxville while their grown sons have moved on to Nashville and Cincinnati, OH. Outside of work Tom does a lot of work with children and adults at the Valley Grove Baptist Church in Knoxville where he is a member and has taught children’s Sunday school for 25 years. Tom is also an avid sail boater.
The Tennessee Division of Forestry honored the Tennessee Environmental Council (the Council) with its “Friend of Forestry Award” for the Council’s success working with volunteers to plant nearly 100,000 trees since 2007 as part of the Tennessee Tree Project.

John McFadden received the award on behalf of the Council, and says “It feels TREEmendous to receive this award, which honors the hard work and vision of the Council’s staff, board, and hundreds of volunteers who have all contributed immensely to our success in getting trees in the ground.”

“The Tennessee Environmental Council’s ‘10K Tree Day’ initiatives have been instrumental to the development of, and the overall success of, the Division of Forestry’s new Urban Riparian Buffer Program,” the Division’s Buffer Coordinator Reggie Reeves said.

The Council was extremely helpful in providing valuable guidance and insight into the complex logistics of planning, organizing and implementing large scale volunteer based riparian buffer tree planting projects. Mr. McFadden and his staff’s expertise has been gained and continually refined through their experiences with their 10K Tree Day initiatives throughout Tennessee. This expertise, so generously shared with others, certainly helped the Division’s Urban Riparian Buffer Program reach many more volunteers and plant many more trees along Tennessee’s waterways than might have otherwise been realized.

In 2013 the Council’s 10K Tree Day initiatives engaged hundreds of volunteers and planted thousands of trees along waterways and other areas in need of reforestation throughout Tennessee. These projects not only helped communities address storm water, water quality, soil erosion, and wildlife habitat concerns, but also served as a vehicle to educate and inspire volunteers as to the importance of establishing and maintaining forests in general. As a part of each individual project under this initiative, volunteers learned many forestry related lessons, including: why trees are important; their role in healthy ecosystems; and their importance in energy conservation in urban areas. Each volunteer was also inspired regarding their individual role in helping the environment by planting trees, and learned how, when and where to plant trees for the greatest environmental benefits.

The Council was also committed to working with municipal stormwater programs statewide to help them better engage the public in providing for riparian buffers, and was committed to planting 1,000,000 trees across Tennessee. The lasting legacy of the Council’s 10K Tree Day initiatives should be measured not only by the numbers of trees planted and the acres of ground reforested, but also in the countless individuals who are inspired to care for the environment and Tennessee’s forests, and to become actively involved in making a difference.
Wildland Fire Protection

Mission: Minimize damage caused by wildfire to forest resources and personal property while giving priority to firefighter and public safety.

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 additional County-wide Protection Plans and Firewise Communities.
- Promulgate rules for Prescribed Burning Act and open-air burning permits.
- Conduct fire suppression training.
- Conduct two Certified Burn Manager training classes.
- Contract for screening excess property.
- Conduct work capacity test.
- Coordinate ongoing training program.
- Maintain training database.
- Maintain safety records.
- Coordinate safety inspections of facilities.
- Provide safety information (updates, messages).
- Investigate accidents/unsafe work practices.

Major accomplishments for July 1, 2013 – June 30, 2014

- Facilitated and participated in response to wildland firefighter Jerry Campbell fatality.
- Suppressed 1,346 forest fires that burned 20,968 acres, the highest since 2007.
- Issued 353,444 burn permits, of those 47,527 (13%) were obtained online from BurnSafeTN.org.
- Instituted open-air outdoor burning permit rules.
- Instituted Tennessee Prescribed Burn Act rules.
- Participated in development and adopted SouthWRAP for fire prevention planning (see inset below).
- Broadcast fire prevention announcements from numerous radio stations with emphasis on obtaining a burn permit and awareness of outdoor burning safety.

Southern Wildfire Risk Assessment Portal (SouthWRAP)

The South Wildfire Risk Assessment Portal, or SouthWRAP, is a web tool that enables civic leaders, community planners, elected officials and others to identify the risk wildfire poses to their communities. User-friendly mapping applications display information such as fire potential, landscape features and even places where people live in the wildland. Developed by Southern Group of State Foresters (SGSF), this tool empowers anyone in the Southeastern United States to be able to better protect their homes and communities.
Wildland Fire Protection

- Conducted biennial inventory of Federal Excess Personal Property (FEPP) Equipment. There were 192 pieces of equipment inventoried with a total value of $7,427,647.35 (see picture).
- Featured the Division’s centennial celebration in the 2014 fire prevention pocket and wall calendars, as well as other products.
- Deployed 3 individuals and a 20 person crew to federal wildfire assignments to California and Oregon.
- Funded 4 Hazard Mitigation Projects in 4 communities (Laurel Mountain Lakes, Cobbly Nob, Long Branch Lakes and Norris Shores).
- Conducted Firewise meetings in 10 communities (see picture).
- Held a successful Firewise Living on the Edge workshop in Sevierville following several high profile wildfires in the area.
- Lone Mountain Shores and Long Branch Lakes became nationally recognized as Firewise Communities, bringing the total to 10 active Firewise Communities in Tennessee.
- Conducted wildfire prevention projects with Chattanooga Lookouts baseball, University of Tennessee Chattanooga football, Middle Tennessee State University football and baseball, and the Tennessee Titans.
- Facilitated open houses at all fire stations in Monroe County to promote fire prevention and Firewise practices.
- Provided grants to 84 volunteer fire departments totaling $221,378.00.
- Complied with the National Cohesive Wildland Fire Management Strategy by promoting the Fire Adapted Community approach to communities, within TDF, to other agencies, fire departments, and city and county governments.
- Participated in developing a technical publication being written by Steve Quarles of the Insurance Institute for Business and Home Safety regarding the Black Bear Cub fire.
- Administered the work capacity test to assess fitness among Division firefighters.
- Conducted the Division’s annual wildfire training academy for new employees.
- Conducted the first two Certified Prescribed Burn Manager Training Courses, with a total of 40 students in attendance.
- Participated in the 12th 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. Assisted with Pest Management Certification Training for employees.
- Coordinated First Aid/CPR and Defensive Driving Trainings.
- Coordinated Citation (Badge) Training with the Agricultural Crime Unit.
- Coordinated safety inspections of facilities; Compiled and submitted OSHA Accident and Illness reports.
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

• Develop marketing campaign for Tennessee's wood-using industries.
• Increase the sample size of contributors to the Forest Products Bulletin.
• Make the Forest Industry Directory available as an interactive map that can be queried.

Major accomplishments for July 1, 2013 – June 30, 2014

• Developed Tennessee Wood Products marketing campaign to connect consumers and the state's wood products industry through “branding” of products produced in Tennessee. The program is open to any business that produces and/or manufactures wood products in Tennessee (see sidebar).

• Published 4 editions of the Tennessee Forest Products Bulletin, which provides information on delivered forest product prices at mills in Tennessee.

• Evaluated the impact of the permanent closing of the International Paper (IP) Mill in Courtland, Alabama on Tennessee forest landowners and loggers. The IP Mill was one of the largest in North America and was located only 20 miles south of the Tennessee – Alabama state line. The mill employed 1,100 and processed over 3 million tons of wood per year much of which was harvested from an estimated 20 to 30 thousand acres for forest each year. The information on forest growth and removals, rail, waterway, and highway access in the region, has been developed in a brochure that will be used to recruit new forest related industry to the region.

• Processed over 25 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 four companies with logistics of locating forest industry facilities in the State.

• Combined the Timber Product Output database with the Forest Industry Directory in a file geodatabase to locate 383 primary mills, added aerial photos of facilities with links to Google Maps and created an interactive map in ArcGIS Online where information on and location of mills can be queried by users.

Tennessee Wood Products Branding Initiative

The most successful brands seek to create trust with customers and reduce their purchase risk. They are usually in the form of a name, sign, symbol or design that identifies the seller, differentiates a product from its competitor's offerings, represents a unique image, simplifies and enhances confidence in a product choice, and promotes the development of customer loyalty.

The goal of the Tennessee Wood Products brand is to increase visibility and enhance marketing opportunities for Tennessee's wood products industry. A primary benefit of this program is to connect consumers of wood products to Tennessee producers and manufacturers through the use of a brand logo that signifies common values and attributes of Tennessee's abundant, sustainable and quality forest resources, the talented and skilled human resources that service the industry, and the wide diversity of products produced and used in our everyday lives.
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 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

- Develop spatial database of all primary wood processing mills in the State.
- Create an interactive online map of all primary mill locations.

Major accomplishments for July 1, 2013 – June 30, 2014

- Combined the Timber Product Output database with the Forest Industry Directory in a spatial file geodatabase to locate 383 primary mills. Created an interactive map where information and location of mills can be viewed.
- Analyzed change in Tennessee's hardwood forests based on Forest Inventory and Analysis data (see inset).
- Measured and recorded tree counts, heights, diameters and health related data on 482 plots across the state.

FIA Analysis Reveals Reduced Quality in Hardwood Logs

Hardwoods are important to the Tennessee economy. In 2007 the State ranked as the South's top producer of hardwood saw logs. Anecdotal evidence of reduced hardwood log quality led the Unit to analyze FIA data for change in our hardwood forests. Such a change could indicate that quality is being impaired by the harvesting practice of removing only merchantable species above specified sizes. Results from the analysis indicate the percentage of grade 1 logs dropped from 19% in 1999 to 7% in 2011. The Unit developed a white paper defining this issue with the goal of developing policies to encourage landowners to manage the entire forest and not “high grading” the most valuable species.

FIA Analysis Reveals Reduced Quality in Hardwood Logs

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 for which benefits are difficult to measure but which 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 the use of forest buffers along streams in forests of the State.
- Begin using computerized feature extraction programs to locate changes in forest cover from aerial photographs.

Major accomplishments for July 1, 2013 – June 30, 2014

- Purchased computer software that locates changes in forest cover in aerial photographs and have begun identifying areas harvested in 2014. This will allow selection of samples for the next BMP implementation survey.
- Conducted 637 courtesy checks through site visits to harvesting operations with landowners, foresters and loggers. Worked with another 162 contacts for pre-harvest assistance and site visit follow-ups.
- Investigated and made recommendations on 73 water quality complaints, 32 referred to the Division by the Department of Environment and Conservation and 41 from other sources.
- Prepared 1,502 written BMP recommendations for forest landowners in forest management plans and through timber sale assistance by Area Foresters.
- Presented 45 classes in conferences and workshops for 3890 participants where forest water quality and BMP were an important part of the discussion.
- Presented 20 BMP sessions in cooperation with the Tennessee Forestry Association for the Tennessee Master Logger Program, training 392 loggers with funding received through the Tennessee Agricultural Enhancement Program.
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 processes.
• Focus on providing excellent customer service to Tennessee’s forest landowners.
• Optimize cost-share funding utilization.
• Up-date program policies and procedures manuals.
• Better establish forest management program priorities.

Major accomplishments for July 1, 2013 – June 30, 2014

• Partnered with the Promark/D’Addario Company to furnish hardwood tree seedlings from the Division’s nursery to Tennessee landowners at no cost.
  ◊ 31 landowners participated statewide
  ◊ 67,150 seedlings planted
    » hickory – 300
    » oaks – 58,650
    » other hardwoods – 8,200

Forest Management Planning

• Provided 1,511 forestland inspections to landowners (985 were first time assists).
• Wrote 139 Forest Stewardship plans addressing 20,505 acres.
• Recognized implementation of 17 Forest Stewardship plans improving 4,507 acres.
• Wrote 959 other forest management plans addressing 73,131 acres.

Forest Stand Prescription Planning

• Wrote 413 prescription plans improving 22,363 acres.

Forest Stand Prescriptions Implemented

• Assisted 41 landowners in planting 567 acres of hardwood trees.
• Assisted 123 landowners in planting 5,124 acres of pine trees.
• Assisted 174 landowners in other forest improvement activities on 12,570 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.

Partnership with ProMark by D’Addario Puts Tree Seedlings in the Ground of Landowners

The “Play. Plant. Preserve.” Tree Planting Cost Share program is an initiative aimed at ensuring that the hardwood resources used for making drumsticks and mallets in ProMark’s Prospect, TN sawmill is sustainable.

The program is funded by ProMark and administered by the Tennessee Division of Forestry (TDF). The goal of the program is to provide an avenue for the planting of five trees for every one that ProMark uses on an annual basis. Seedlings used for this program are grown at TDF’s East Tennessee Nursery and are provided at no cost to eligible Tennessee landowners. Landowners are required to work with a forester to develop a planting plan and to ensure that the seedlings they receive are appropriate for their planting location.
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 across Tennessee and to green industries (arborists, grounds managers, landscape architects, others) that impact the management of the urban forest resources.
- Administer grants, Tree City USA, Tree Line USA, Tree Campus USA, Champion Tree and related program and project administration.
- Complete canopy cover analyses for Tennessee communities.

Major accomplishments for July 1, 2013 – June 30, 2014

- Completed 12 Tennessee Agriculture Enhancement Program urban (TAEPu) community tree planting grants in cities and towns across Tennessee that planted 897 new trees in these communities.
- Made 85 assists to 45 cities and towns, and 39 secondary assists to arborists, nurseries, landscape architects, schools, grounds managers and other related entities that have an impact on urban forests. Assists included technical information on planting care and maintenance of trees and information to tree boards, ordinance reviews, tree city information, planting recommendations, etc.
- Partnered with the Tennessee Urban Forestry Council to host a statewide Urban Forestry Conference and State Tree Climbing Championship for arborists.
- Provided assistance to the Tennessee Urban Forestry Council to support and continue their programs through a transition period of changing officers and their executive director. Successes include:
  - Sponsored a workshop for Tennessee Tree Boards – 25 cities sent at least one representative.
  - Trees of Tennessee Book - a hardcover pictorial of some of the landmark and historic, champion and notable trees (see picture).
  - Expansion of the arboreta recognition program and the improvement in records keeping of the program.
- Completed canopy cover analysis for 3 cities. Knoxville's canopy percent is 39.5 and impervious surface is 32.6. Parsons' canopy percent is 48.3 and Martin's is 30.2. Impervious surface was not analyzed for Parsons and Martin.
- Re-certified 17 Tree Line USA's plus 2 additional first time certifications for Oak Ridge and Fort Loudon Electric. (Tennessee is Number One in the country in recognized Tree Line USA's).
- Recognized 40 cities and towns as Tree City USA in 2014. Of special note, TN Division of Forestry recognized Memphis as a Tree City USA, completing the work of several dedicated individuals working for several years to achieve this status for their city.
- Certified 6 campuses across Tennessee as Tree Campus USA. Including Cleveland State Community College, Rhodes College, Tennessee State University, Trevecca Nazarene, Tennessee Wesleyan Univ, and UT-Chattanooga.
- Conducted 2,434 hours of instruction at 27 training sessions.
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, TN, produces forest seedlings that are available for sale to landowners in Tennessee. These seedlings are adapted to growing conditions found in Tennessee 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 each year to ensure the long-term productivity of the nursery soil.

Objectives for Year

• Increase seedling sales revenue.
• Seek new venues to market Division seedlings.
• Engage District personnel in seedling marketing.
• Work with District offices to ensure that seedling applications are delivered to natural resource agency/organization offices in their areas.
• Contact new agencies/organizations to market seedling purchasing opportunities offered by the Division.
• 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, 2013 – June 30, 2014

• Sold 3.6 million tree and shrub seedlings to generate sales revenue of $553,000 (see picture).
• Achieved a customer satisfaction rating of 97% based on the results of our annual customer satisfaction survey.
• Worked with the Tennessee Department of Agriculture’s computer specialists to develop an on-line seedling sales system that allows the public to order seedlings via the internet.
• Published advertisements in the TWRA Fall Hunting Guide, Tennessee Home and Farm Magazine, Ag Insider Magazine and Tennessee Magazine.
• Worked with the Tennessee Wildlife Resources Agency personnel to produce a story about the East Tennessee Nursery that appeared on their “Tennessee's Wild Side” television program.
• Set up and manned display booths or presented information at the Ocoee/Hiwassee Festival, a TDEC Watershed Meeting, the National Wild Turkey Federation Annual Convention, a meeting of the Tennessee Christmas Tree Growers Association and a meeting of NRCS biologists to promote TDF seedlings.
• 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.
• Sawtimber Elite loblolly pine seed harvested in October 2013 was sown in the spring of 2014 and the resulting seedlings are currently for sale as a value added product for landowners interested in producing pine sawtimber.
• Installed a new metal roof and refrigeration units and made structural repairs to the seedling cooler at the Pinson Reforestation complex.

Seedlings grown by the Tennessee Division of Forestry help landowners meet a variety of objectives including timber production, wildlife habitat improvement, and water quality protection.
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**

- Expand the loblolly pine Sawtimber elite seed production orchard at the West Tennessee Tree Improvement Center (WTTIC) in Chester County with appropriate selections.
- Expand black walnut seed production orchard and archive at the WTTIC and the East Tennessee Nursery (ETN).
- Establish three loblolly pine progeny tests at the WTTIC.
- Calculate performance value estimates for major program species.
- Maintain, monitor, and manage orchards to promote healthy trees.
- Identify and tag Sawtimber Elite selections in the orchards at ETN.
- Harvest seed from producing orchards as needed by the nursery program.
- Begin 4th cycle breeding in loblolly pine.
- Measure progeny tests, conduct preliminary data analysis, and select outstanding individuals for seed production and breeding.

**Major accomplishments for July 1, 2013 – June 30, 2014**

- Harvested 1,302 pounds of hybrid chestnut from the seed production area at the ETN.
- Harvested 2,444 pounds of sawtooth oak acorns from seed production areas at the ETN and PRC (Pinson Reforestation Complex).
- Harvested 865 lbs. of yellow-poplar seed from the 2nd generation orchard at the ETN which yielded 75.5 pounds of cleaned and de-winged high viability seed (see picture).
- Harvested 667 bushels of loblolly pine cones at the PRC and ETN which yielded 497 lbs. of cleaned and de-winged high viability seed.
- Collected 80 pounds of seed of various species from seed production areas and wild trees at the ETN and WTTIC.
- Marked 280 trees for removal from Nuttall and northern red oak progeny tests at ETN for conversion to seed production areas.
- Identified and mapped “Sawtimber Elite” selections in the loblolly pine orchards at the ETN and PRC.
- Produced containerized seedlings and established three loblolly pine progeny tests assigned by the NCSU-CTIP at the WTTIC in Chester County.
- Calculated estimated performance gains for loblolly pine and Nuttall oak orchard selections. Significant improvements are expected from progeny from these orchards including gains in volume and quality of form (i.e. straighter trunks). Increase in fusiform rust resistance was also found in loblolly pine selections. Performed one-third of loblolly pine crosses in the 4th cycle breeding plan.
- Measured first year growth and survival for the loblolly pine genetic test planted in 2013.
- Generated Performance Rating System (PRS) scores for loblolly pine sawtimber and rust resistant selections and created a PRS database for TN loblolly pine selections.
- Tagged orchard trees with PRS scores at the ETN and PRC orchards.
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 and eradication trapping.
- Facilitate Tennessee Hemlock Conservation Partnership and successfully treat 300 acres of public land for hemlock woolly adelgid.
- Provide support to TDA- Consumer and Industry Services and USDA- Animal and Plant Health Inspection Service in detection and monitoring of thousand cankers disease, emerald ash borer, and exotic bark beetles.
- 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, 2013 – June 30, 2014

- Conducted southern pine beetle (SPB) trapping in Chester, Marion, Rhea, and Wayne Counties where pine is a major component of several forest types. Surveys indicate extremely low SPB populations and stable populations of the clerid beetle which is a natural enemy of SPB.
- Conducted gypsy moth egg mass survey in Cumberland County in February. Three adult male gypsy moths were caught in this location in August 2013. No egg masses were found at the time of this survey. This location, in addition to 10 other locations where moths were caught in 2013, will be delimited during the 2014 gypsy moth detection season. As of August 2013, no gypsy moth infestations are present in Tennessee.
- In June 2014, 7,400 gypsy moth detection and delimiting traps were place in 93 counties.
- Completed hemlock woolly adelgid (HWA) surveys in east and middle Tennessee. The insect was newly discovered in Grundy County bringing the total number of counties infested with HWA to 37.
- Treated 1,697 acres of public land for HWA, continued to release several thousand predator beetles on various state lands, and conducted four private landowner workshops with over 95 participants. This was done in cooperation with the TN Hemlock Conservation Partnership.
- Provided grants to eradicate exotic invasive plants at Radnor Lake State Park, Warner Parks, and Bells Bend Park.
- Conducted aerial surveillance flights over 88,539 acres in Chester, McNairy, and Hardin Counties to detect SPB; flew 99,298 acres over Claiborne and Hancock Counties to assess emerald ash borer (EAB) damage; flew 1,612 acres over Carter County to assess HWA damage.
- Monitored 95 counties for forest health related issues and report over 300 observations. Developed a statewide ArcGIS map to track and evaluate all forest health occurrences. These data are useful in developing forest health trends, infestation prediction models, and assist forest industry operations.
- Conducted statewide forest health training for the Division in May 2014.
- Conducted three community meetings – one each in Jackson, Hamilton, and Scott Counties- to educate forest industry and private landowners on the impacts of the expanded EAB quarantine to those counties.
- Held first meeting of the Tennessee Forest Health Council. This group consists of representatives from all agencies and organizations involved in promoting and improving the health of Tennessee's forest. The mission for this Council is to gather and disseminate accurate and timely forest health information and updates; advise state and federal agencies, non-government organizations, and any other group involved in the forest industry on pertinent forest health information; and to promote consistent outreach and educational messages to the general public.
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 16 Compartment Plans.
- Hold 4 demonstrations, tours or field days.
- Harvest 1,435 acres of timber.
- Generate $3.1 million in Timber Sales Revenue.
- Complete 360 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, 2013 – June 30, 2014

- Approved 9 Compartment plans.
- Held two Tennessee Healthy Hardwood field days (Chicksaw and Standing Stone State Forests).
- 18 timber sales were conducted in FY 14 totalling 1,290 acres and yielding 11.2 million board feet and 9,542 tons of pulpwood.
- Timber sale revenues applied toward FY 2014 totaled $2,987,725.75 ($2,561,609.00 from FY2014 scheduled sales and $426,116.75 from scheduled FY2013 sales booked in FY2014) (see chart).
- Planted tree seedlings on 261 acres of State Forest lands.
- Completed 312 state forest inventory plots, making 591 complete of 725 total with 134 remaining.
- Completed training for our new employee position assigned to special projects, which includes completing forest inventory plots and mapping roads for public use designation.
- Mapped approximately 60% of the state forest access and public use roads.
- Completed one online webinar sessions for the timber sales and compartment plan writing training for state forest foresters.
- Updated the Quick Guide for Writing Compartment Plans.
- Completed migration of state forest data to online “cloud” server for access by field personnel to make transfer of data more efficient between the Nashville office and state forest field offices for compartment planning, timber sale administration and other forest information.

FY2014 Timber Sale Revenue by State Forest.

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.
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

• Provide training in Green Tree Online Database for TDF staff.

Major accomplishments for July 1, 2013 – June 30, 2014

• Internet Survey to check bandwidth speeds at Forestry Offices. Currently using State LAN, DSL and 4G Wireless Cards. LAN/T1 connections average download: 2.1Mbps, DSL average download: 2.6Mbps and 4G Wireless Cards average download: 10.5Mbps.
• Held Green Tree training webinar.
• Created Complaint Checklist Database for Water Quality.
• Built Nursery Online Seedling Sale Website and collected orders.
• Upgraded Vehicle Database in Green Tree to printout MVM’s forms for assignment request (saved 2 weeks of work for new vehicles, saved months of work for entire fleet) Whole fleet can now be printed in 10 minutes.
• Linked Asset Inventory Database from Edison Asset Module in Green Tree for easy searching and email requesting of asset transfer.
• Replaced 50+ 4G Wireless cards of our 140 in total.
• Created database for Radio Section to track maintenance on radio sites.
• Completed TDA Commissioner’s requested building square footage, utilities, etc. on all facilities. This prompted the creation of a Facilities Database in Green Tree Online Database to collect parcel, building size, utilities and store deeds along with other electronic documents.

Radio Communications

Objectives for Year

• Establish guidelines for work repairs and equipment tracking.

Major accomplishments for July 1, 2013 – June 30, 2014

• Entered into Jackson County Sheriff Lease agreement for Haydenburg Fire Tower.
• Installed radios in 50+ new trucks.
• Staged new microwave equipment in East TN and pre-installed at sites.
• Moved English Mtn., Greentop and Walnut Mtn. radio sites onto Department of Safety’s new towers.
• Rebuilt 50+ old “Cardion” microwave power supplies to reduce failures.
• Created databases to track repairs and equipment.
• Developed procedure to provide chain of custody of radio equipment.

Radio towers and associated equipment are constantly monitored for repair needs. Weather is the most significant cause of equipment malfunction.
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, which, in turn, provides a stream of essential ecological benefits to society. 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.
- Implement and promote the Clean Water for Urban Forests Program.
- Utilize information technology to address physically and socially complex natural resource issues to diverse audiences.

Major accomplishments for July 1, 2012 – June 30, 2013

- Held 1,615 educational outreach activities reaching 213,177 children and adults statewide.
- Facilitated the 65th annual Forestry Camp for 59 Future Farmers of America high school students (see pictures).
- Assisted the Tennessee Association of Resource Conservation and Development Councils with Tennessee Envirothon.
- Led statewide communications response to forest health threats.
- 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 forest legacy.
- Referenced in 539 newspaper articles.
- Gave multiple radio and television interviews addressing Division programs and topical issues.
- Maintained fire prevention website - BurnSafeTN.org - where citizens learn about safe debris burning, wildfire conditions, Firewise Communities and obtain a burn permit. The site had 292,924 page views (+18%) from 131,419 visits (+14%).
- Maintained forest health website - ProtectTNForests.org - where citizens learn about forest health issues affecting the state's trees and forests and offers information on ways they can be active in managing outbreaks or slowing the spread. The site had 7,056 page views (+36%) from 3,234 visits (+56%).
- Launched online nursery ordering system - PlantTNTrees.org - where landowners and organizations can buy tree seedlings through an online payment system. This was a soft opening to test the system for full scale launch in FY2015.
- Maintained the Division's YouTube Channel. The number of video views was 10,615 (-9%). The most viewed video continues to be “Using Handtools to Suppress Tennessee Forest Fires” representing 53% of total views to a worldwide audience including 120 countries.
- Posted periodic status updates related to forestry on the Department’s Facebook and Twitter accounts.

Clean Water for Urban Forests Program

- Managed 110 tree planting projects on 42 sites resulting in the planting of over 20,000 trees along 5 miles of riparian buffers covering 19 acres in Davidson County.
- Involved over 1,800 volunteers accounting for 5,500 volunteer hours served towards the project.
- Attracted and fostered program involvement with numerous partner and volunteer organizations.
- Sponsored 1st Annual Nashville Urban Runoff 5K and Water Quality Festival.

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.
Adminstration

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

- Celebrate TDF Centennial.
- 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.
- Improve federal grants management processes.

Major accomplishments for July 1, 2013 – June 30, 2014

- Celebrated TDF Centennial throughout the year in various forms including press releases, speaking engagements and state and county fairs.
- Reported budget status quarterly.
- Repaired dozer fuel tank lining.
- Wrote equipment replacement plan for FY2014.
- Auctioned S91904 - boom truck at nursery.
- Surplusedom clamshell dozer at Lone Mountain.
- Reviewed phone bills for compliance.
- Improved federal grant reporting and monitoring processes.

Real Estate and Leasing

- Moved Cumberland District Office to new facilities.
- Deemed 39 Fire Tower Sites as State Historical locations.

Forest Legacy

- Recommended via State Forest Stewardship Steering Committee 2 projects to be considered for USDA Forest Service Regional and National funding:
  - Sherwood Forest Fee purchase - Franklin County, 4,800 acres adjacent to Franklin State Forest.
  - Carter Mountain Conservation Easement – Franklin County, 4,900 acres.
A Century of Conserving, Protecting, Enhancing

**Past**

**Present**
Today, Tennessee’s forests cover 14 million acres (52 percent) of the state. Our forests are prized, much due to the efforts of TDF over the past 100 years, for a great number of benefits including beauty, wildlife habitat, timber, recreation, air and water quality, energy conservation, carbon sequestration, enhanced property values, storm water control, and natural heritage.

These benefits, however, face significant threats in the form of wildfire, insect and disease, lack of proper management and urban expansion. So, there is much work to be done.

The Division of Forestry has much to be proud of for its accomplishments over the past century, and will continue to work hard over the next 100 years to continue to conserve, protect and enhance the forest resources of the state.

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.

The State of Tennessee policy of non-discrimination
Pursuant to the State of Tennessee’s policy of non-discrimination, the Tennessee Department of Agriculture does not discriminate on the basis of race, sex, religion, color, national or ethnic origin, age, disability or military service in its policies or in the admission or access to treatment or employment in its programs, services, or activities.

If you seek more information or feel that you have been treated unfairly in regard to the State’s services or hiring practices, contact the Tennessee Department of Agriculture, EEO/AA/ADA Coordinator, P.O. Box 40627 Melrose Station, Nashville, TN 37204, 615-837-5115.

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