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Tennessee Forestry Commission 2019 Annual Report

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TENNESSEE FORESTRY COMMISSION

2019 ANNUAL REPORT



& Outreach

Reforestation



State Forest Management

TENNESSEE

Wildland Fire Protection

FORESTRY/



Forest Data & Analysis

Forest Business Services

COMMISSION





Department of **Agriculture**

Forestry



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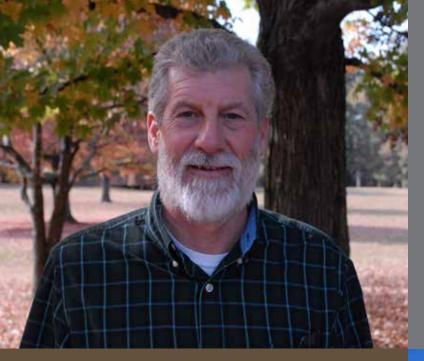
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MEMBERS

Chair Johnny Heard | Collinwood, TN | Represents hardwood manufacturers Vice-Chair Tom Midyett | Knoxville, TN | Represents pulp and paper manufacturers Secretary John Charles Wilson | Memphis, TN | Represents conservation organizations Bob Qualman | Brentwood, TN | Represents forest landowners of less than 500 acres Alex Richman | Lynchburg, TN | Represents owners of greater than 500 acres Mike Witt | Cookeville, TN | Represents owners of less than 500 acres Charles Daugherty | Represents public at large* Ex-Officio Charlie Hatcher, D.V.M. | Commissioner of the Tennessee Department of Agriculture Ex-Officio Ed Carter | Director of the Tennessee Wildlife Resources Agency Ex-Officio David Salyers |Commissioner of the Tennessee Department of Environment & Conservation

*Governor Bill Lee appointed Dr. Sharon Jean-Philippe to fill this role after the timeframe of this report.



JOHNNY HEARD CHAIR OF FORESTRY COMMISSION

The Tennessee Forestry Commission works to establish state forestry policies and make budget recommendations that provide the Division of Forestry the resources needed to manage our states beautiful and productive forest. The Division provides critical wildland fire protection, forest health monitoring, seedlings for reforestation, forest data and analysis, and many other benefits to each of Tennessee's 95 counties. The Commission would like to thank our elected officials for their cooperation and support of the Division of Forestry.

CHARLIE HATCHER, D.V.M. COMMISSIONER OF AGRICULTURE

The Tennessee Department of Agriculture's Division of Forestry is committed to supporting landowners and to ensuring productive, healthy forests. The Tennessee Forestry Commission is an invaluable partner in so many ways. Forestry is an important part of Governor Lee's focus to invigorate rural communities. We appreciate the Commission's contributions as we work with leaders in the most economically challenged counties to recognize and leverage forestry assets. You are helping us achieve goals related to forest health and management, landowner assistance, and forest products statewide.





DAVID ARNOLD STATE FORESTER

To protect, conserve, and enhance Tennessee's forests, we must encourage forest landowners to actively manage their forestlands. Forest products markets are the best incentive available to encourage active management. This past year it has been our priority to partner with Tennessee's forest industry to develop diverse, competitive, sustainable forest products markets. The results of this partnership will include invigorated rural economies, increased timber production, more diverse wildlife habitat, but most importantly a more resilient forested landscape. It's an exciting time to be connected to the forestlands of Tennessee.





ACTIONS & ACTIVITIES FOR FY 2019

The Tennessee Forestry Commission met five times during the 2019 fiscal year. The Commission's April 2019 meeting was at Packaging Corporation of America's paper mill in Counce. This meeting followed a field trip with Department of Agriculture Commissioner Charlie Hatcher, D.V.M. to various forestry related facilities in Wayne and Hardin Counties.

In the spring of 2018, the Commission was notified of the impending retirement of State Forester and Assistant Commissioner for Forestry Jere Jeter. In the summer of 2018, the Commission conducted a national search for candidates and interviewed the finalists. The Commission recommended three candidates to Governor Haslam, with David Arnold being selected as the new State Forester and Assistant Commissioner for Forestry.

At the September 2019 Commission meeting, State Forester Arnold introduced his Executive team – David Todd, Heather Slayton, Dave Walters, Tim Phelps, and Wade Waters.

Throughout the year the Commission received reports from citizens, staff, and subjectmatter experts on various forestry topics and issues affecting forest landowners and the State. The Commission also discussed and took action on the following:

- Continued evaluation of the Tennessee Division of Forestry's response to the 2016 wildfires and the adequacy of the Division's equipment and response personnel.
- Continued intense monitoring of the operations of the East Tennessee Nursery to ensure that this source of high-quality seedlings is operated as efficiently and economically as possible without sacrificing quantity and quality. The Commission recommended that the Nursery increase marketing efforts and consider employing a marketing person, if cost effective.
- Discussed the imposition of quarantines in certain counties due to the infestation by the emerald ash borer and other invasive pests.
- Discussed continuing challenges with the retention and recruitment of qualified fire suppression and Division personnel. The Commission requested the State Forester provide headcount and retention statistics at each Commission meeting.
- As in previous years, the Commission strongly endorsed the Firewise USA® program to lessen the likelihood and severity of wildfires, and encouraged the Division to continue promoting this program throughout the State.
- Monitored timber sales from state forests and continued to encourage the Division to increase sales when feasible to improve the health and quality of the forests and to generate additional revenue for the State.





CONNECTING SOUTHERN FOREST PRODUCTS TO THE WORLD

The south is renowned for producing some of the highest quality forest products in the world, but it isn't always easy to get those products to market. The raw material to produce those products – wood – is sourced primarily from privately-owned family forestlands and getting those owners to actively manage their woods can be a challenge.

"The best incentive we can offer Tennessee's forest landowners to encourage active forest management is to develop diverse, competitive, sustainable forest products markets," State Forester David Arnold said. "Actively managed forests are more productive and healthier, resulting in a resilient forested landscape."

To offer solutions for businesses looking to grow in new markets, the Tennessee Department of Agriculture Division of Forestry hosted the Southern Forest Products Export Conference in Memphis at the Guesthouse at Graceland Resort, October 21-24, 2018. The conference aimed to highlight challenges and opportunities for inland exporting and to raise awareness of the importance of southern forest products, the industry that produces them, and the economic impact on the region.

"Our goal was to connect the woods products industry with export service providers to help strengthen and expand prospects for our businesses and aid in the overall forest health of our region by enhancing forest management," Arnold said. The conference featured a world-class panel of experts offering insight on exporting forest products from inland states. Building off the previous four iterations of this conference that took place in mid-Atlantic states with ocean ports, this conference:



IDENTIFIED CHALLENGES & OPPORTUNITIES RELATED TO INLAND EXPORTING



PRESENTED MODES TO SCALE BUSINESS TO MEET INTERNATIONAL DEMAND



ADDRESSED KEY INTERNATIONAL MARKETS



HIGHLIGHTED SUCCESS IN EXPORTING



RAISED AWARENESS OF THE WORLDWIDE IMPORTANCE OF SOUTHERN FOREST PRODUCTS

The Division, through its Tennessee Wood Products brand marketing program, hosted the conference

with strong cooperation from partners including the Department's business development staff, the Tennessee Department of Economic and Community Development, the Tennessee Forestry Association, participating state forestry agencies, and trade partners.

An expert panel of speakers provided up-to-date information on key aspects of exporting within four topical sessions, including:



LOGISTICS - Inland states have unique challenges for exporting wood products. Getting products to port efficiently and at low cost are critical for success. Pathways to ports, the Memphis connection, and services that assist business move products were examined.



SCALABILITY – Companies need to produce the volume to satisfy the demand for international buyers. Ideas for scaling to meet that demand were presented.



TRADE POLICY - Getting product to port is half the battle. Understanding how to navigate the international trade waters is another ordeal. Participants heard global perspectives on current trade climate, in addition to receiving updates and tips on doing business with major world regions.



SERVICES - Selected service providers, representing a range of services connected with exporting, shared their experiences, offered guidance, and highlighted their successes.

United States Department of Agriculture Under Secretary Ted McKinney and Canadian Consul General Nadia Theodore were among the distinguished guests who addressed trade issues. The Tennessee Small Business Development Centers also led a pre-conference Export 101 Bootcamp for businesses seeking to enter export markets.

"We were proud to host the fifth Southern Forest Products Export Conference here in Tennessee," former Agriculture Commissioner Jai Templeton said. "This event offered industry leaders, emerging export producers, and nearby partners the opportunity to connect, learn, and work together to continue producing and marketing the region's forest products."

The event attracted 120 attendees who represented 71 companies, agencies, and organizations from 18 states. They included lumber producers, log brokers, pellet industry representatives, sales representatives, consultants, foresters, marketing specialists, freight forwarders, directors, presidents and CEOs, trade organizations, and government service providers. A post-conference survey indicated that attendees greatly appreciated speaker subject diversity and quality, conference organization, and networking opportunities, and indicated a desire to see more participation from the local hardwood industry. A strong majority was looking forward to the next iteration of this conference, which was yet to be picked up by another southeastern state. A conference website – southernforestproducts.org – was established to promote the event and contains archived speaker slide decks and presentation videos.

CONFERENCE OUTCOMES

• Raised awareness of the challenges and opportunities to export from an inland region.

• The region's forest products businesses are better informed to actively participate in export markets.

• Expanded networks for participants and government agencies – Tennessee Economic & Community Development, Tennessee Small Business Development Centers, U. S. Small Business Administration, Export-Import Bank of the U. S., UT College of Business

• Connecting our producers with service providers – freight forwarders, financial services

• Outreach to producers – business skills, marketing skills, etc.

• Strengthened partnerships internally and externally.





WILDLAND FIRE PROTECTION

The Division of Forestry is legally tasked to protect Tennessee's forest resources (TCA 11-4-405) and suppress forest fires in Tennessee (TCA 11-4-406). Fire prevention and suppression are the primary responsibilities of the Division, which is uniquely equipped and qualified for this role. Fire occurrence and acres burned in Tennessee have gradually decreased during the past 50 years. Forest resources have benefited, particularly with improved hardwood timber quality. As the forest landscape constantly changes with influx of homes in the Wildland Urban Interface, the Division's fire role has remained consistent. What has changed is suppression equipment, communication, training, and emphasis on safety, prevention and education.

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.

OBJECTIVES FOR YEAR

- Develop Community Wildfire Protection Plans (CWPP) and Firewise USA® Communities.
- Promote and educate citizens and partner agencies on Firewise USA® through Tennessee Fire Adapted Community workshops.
- Conduct fire suppression, fire behavior, and all hazard incident training to internal and external students.
- Promote and educate responsible use of prescribed fire through Certified Burn Manager training.
- Assess excess property through the Firefighter Property Program (FFP).
- Increase number of burn permits issued online by 4% annually.
- Coordinate safety inspections of field facilities.
- Provide public with safety information including updates on current situations, as well as public service announcements on mitigation steps to prevent devastating wildland fire impacts.
- Investigate accidents and unsafe work practices and identify processes and standard practices to prevent accidents before they occur.

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ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

• Responded to 302 wildfires totaling 3,485 acres, which marks the lowest fiscal year suppression numbers on record. These low numbers were aided by a wet year and robust education and outreach campaigns.

• Saved 208 threatened structures and 55 vehicles and equipment worth a combined estimate of \$13 million.

• Deployed personnel to support emergency wildland fire operations across the country. Division firefighters were recognized by Governor Haslam in a special ceremony honoring their commitment and sacrifice.

 Initiated development of fiResponse software platform, which is an enterprise decision support system that provides capabilities for monitoring wildland fire incidents and all associated operational activities related to incident response, dispatch, and resource tracking. Use of the platform is expected to dramatically increase situational awareness for partner agencies and the public.

• Conducted two Tennessee Certified Prescribed Burn Manager training courses with a total of 90 students. The Division maintains a roster of nearly 370 burn managers in Tennessee.

• Trained 700 structural firefighters from 60 fire departments in the use of fire operations in the wildland-urban interface, as well as other wildland fire courses accredited by the National Wildfire Coordinating Group.

• Provided 98 cost share grants to volunteer fire departments totaling \$262,000.

• Completed the contracting process with Central Procurement Office including specification details and vendor identification—for the future purchase of 112 new dozers and transport trucks to support wildfire suppression.

• Trained personnel in necessary heavy equipment and NWCG courses. Additionally, TDF escalated training for our Type 3 Incident Management Team through multiple position-specific trainings, ISuites incident database training, and two full-scale multi-day team exercise mobilization events.



MITIGATING WILDFIRE

Thanks to favorable weather and citizens who burned debris safely, 2018 saw a record low number of wildland fires. That trend continued into the spring of 2019 for a low of

302 FIRES fires that burned a low

3,485 ACRES.

The Safe Debris Permit system provides the Division a communication tool to let residents know when, where, and how to conduct a safe debris burn. When residents obtain a burn permit and follow the instructions, it's less likely for a fire to accidentally escape.



FOREST HEALTH & SUSTAINABILITY

The health of a forest directly influences all aspects of forestry and is a part of every Unit within the Division. Not limited to insects and diseases, forest health is also influenced by abiotic events, invasive plants, improper silvicultural prescriptions, harvesting damage to residual stand, air and water quality, soil compaction, wildfire, and much more. Forest health is considered in all settings whether the forest exists within an urban environment or a riparian strip between two agricultural fields.

This focus on forest health provides the Unit with a holistic and sustainable approach to all forest management. It demonstrates the connectivity among forest health, the human interface, and the ecosystem services all forests provide.

UNIT MISSION

The mission of the Forest Health & Sustainability Unit is to protect and enhance the health and productivity of Tennessee's forests.

FOREST HEALTH

Forest health programs involve monitoring, detecting, and managing and suppressing native and non-native damaging forest health issues. The major forest health issues managed within this Unit are: gypsy moth, hemlock woolly adelgid, southern pine and other bark beetles, and invasive plants. Other threats to Tennessee's forests are addressed through consistent off-plot monitoring by aerial detection, ground detection, and current technology including satellite imagery. A significant component of this unit is education and outreach that emphasizes current and imminent threats and their transportation vectors (i.e. firewood).

MISSION

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.

OBJECTIVES FOR YEAR

• Promote forest health through monitoring, management, internal trainings, technical assistance, and outreach.

• Improve the collection, analysis, and sharing of data internally and externally in order to enhance customer relationships.

• Partner with the Slow the Spread Foundation to conduct a gypsy moth mating disruption treatment in northeast Tennessee.

• Support research, collect data, and conduct outreach for laurel wilt disease, a disease newly detected in Middle Tennessee impacting sassafras trees.

• Provide leadership to the Tennessee Hemlock Conservation Partnership (THCP) through meeting facilitation, cooperative field days, and general outreach.

• Protect significant hemlock forests from extinction through continued operation of the hemlock woolly adelgid (HWA) strike team.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

• Protected 1,643 acres and treated 17,153 trees for HWA.

• Monitored for gypsy moth via placement of 6,740 gypsy moth traps, capturing 171 male gypsy moths in 7 counties, which is an increase from moths detected in 2017 and 2018.

- Held several forest health trainings for Division personnel.
- Monitored all counties for forest health issues and reported an average of 90 issues per month.

RURAL FOREST MANAGEMENT

Family forest owners are the key to keeping Tennessee's forests productive and healthy. They play an important role in providing all Tennessee citizens with forest products, clean water, wildlife habitat and natural beauty. Many of these landowners are unaware of the role forest management plays in maintaining sustainable and resilient forests. This lack of awareness has quite often resulted in activities that leave forests less productive or at risk to insect, disease, and water quality problems.

The Division of Forestry provides forest management planning and financial assistance to encourage landowners to manage their forest resources in a manner that increases productivity, maintains forest health, and protects water quality. Forest management planning assistance is provided as individualized management plans, published materials, and group presentations. Financial assistance is offered through various federal and state funded cost-share programs.

MISSION

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



RURAL FOREST MANAGEMENT (CONTINUED)

OBJECTIVES FOR YEAR

- Provide professional development for Division foresters.
- Pursue funding opportunities for development of a landscape management plan for Tennessee.
- Train Division foresters on ArcGIS Pro software.
- Provide excellent customer service to Tennessee's forest landowners.

ACCOMPLISHMENTS FOR JULY 1, 2018 - JUNE 30, 2019

• Held the first annual Tennessee Forester's Academy to provide professional development to Division foresters and establish a cohesive understanding of the Division's vision for landowner services. All forester ranks attended to hear Division program updates from unit leaders and program specialists, and learn about prescribed fire, forest markets, herbicide application, communications, and forest inventory from industry leaders and academic experts.

• Secured \$150,000 Landscape Scale Restoration grant from the USDA Forest Service for the development of a Tennessee landscape level forest management plan. Implementation of this project will reduce the burden of individual management plan development, allow foresters to spend more time with landowners on the ground, and contribute to accomplishing landscape level goals.

• Trained Division foresters on ArcGIS Pro software and a related customized project specifically designed for landowner assistance.

- Developed a landowner assistance operations dashboard using ArcGIS software.
- Wrote 84 Stewardship plans addressing 9,971 acres.
- Recognized implementation of 2 stewardship plans improving 332 acres.
- Wrote 544 other forest management plans addressing 43,736 acres.
- Wrote 362 prescription plans improving 16,117 acres.

• Assisted 173 landowners in the implementation of forest management activities on 6,326 acres that included hardwood and softwood tree planting, site preparation and release activities, prescribed burning, wildlife habitat improvement, stream crossings, and erosion control.

FOREST LEGACY

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.

MISSION

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

OBJECTIVES FOR YEAR

- Secure federal funding for Skinner Mountain Forest Conservation Easement in Overton and Fentress Counties.
- Complete Quality Assurance Inspection of Forest Legacy appraisal activities.
- Conduct monitoring of all Forest Legacy conservation easement tracts.

LEVERAGING THE POWER OF TECHNOLOGY

The Division of Forestry deployed ESRI's ArcGIS Pro, an industry leading geographic information system application, to all field foresters and provided the training, certification, and support necessary for the new software to be integrated into their daily workflow. Continuously increasing and leveraging use of these technologies has increased efficiencies in product and service delivery. The landowner assistance project has enabled the production of consistent, recognizable high-quality mapping products and created a decentralized database allowing for easy real-time data summary, visualization, and sharing.

On average, the Division's landowner assistance program provides written planning assistance to more than 1,400 customers improving 115,000 acres of family forestland each year. In addition to written planning assistance, foresters assist more than 17,000 Tennesseans in the management of their properties though oneon-one consultation, published materials, and group presentations annually. In the course of these activities, information is gathered on the location and types of assistance provided. This data presents numerous opportunities and insights for improvements.

Leveraging the power of ESRI's ArcGIS platform to process the increasing volume, variety and velocity of collected information, the Division is better able to address a number of priorities including communications, fiscal accountability, and forest health. The landowner assistance program operations dashboard is an example of how this technology is being used. This dashboard allows a user to quickly summarize and visualize what services are provided spatially and to easily communicate that information to internal and external customers.

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FOREST LEGACY (CONTINUED)

ACCOMPLISHMENTS FOR JULY 1, 2018 - JUNE 30, 2019

- Received \$5,665,000 in Forest Legacy federal funding for the Skinner Mountain Forest Conservation Easement purchase.
- Successfully completed the Quality Assurance Inspection of Forest Legacy appraisal activities conducted by the USDA Forest Service.
- Completed all annual compliance monitoring visits for Forest Legacy conservation easement tracts.



PICTURED ABOVE: Brian Hughett, Forest Stewardship Forester who administers the Forest Legacy Program for the Division, collects forest inventory data for the development of a multi-resource management plan. A multi-resource management plan is one of the many requirements of a Forest Legacy Conservation Easement. All Forest Legacy Conservation Easements are monitored at least once annually to ensure compliance with the terms of the easement.

URBAN & COMMUNITY FORESTRY

Urban and Community Forestry programs provide technical and financial forest and tree management assistance to communities and municipalities statewide. Technical assistance can be offered at the tree board or city planning level, through rapid on-site forest or tree assessments, or communication through outreach events or individual inquiries. Financial assistance is offered to cities, municipalities, and non-profit groups through a competitive proposal process. These proposals range from ball-and-burlap plantings to urban riparian restoration projects. The urban forestry programs also include nationally recognized programs that allow cities, utilities, and centers for higher learning to promote their urban forest status and bring awareness to the importance of urban trees.

MISSION

Assist and encourage municipalities and private urban landowners to establish, improve, and maintain healthy urban forest resources.

OBJECTIVES FOR YEAR

• Provide urban and community forestry assistance to cities, towns, and green industries (arborists, grounds managers, landscape architects, and others) that impact the management of urban forests.

• Administer Tennessee Agricultural Enhancement Program (TAEP) tree planting grants and Urban and Community Forestry federal grants.

• Administer Tree City USA, Tree Line USA, and Tree Campus USA programs.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

• Completed 22 TAEP community tree planting grants for a total of 2,419 trees planted.

• Funded urban forester positions in Memphis and Cookeville using federal Urban and Community Forestry grant funds. Cookeville made their forester a permanent position.

• Recognized 47 Tree City USA Tennessee cities and towns.

• Recognized 19 utility companies as Tree Line USA. Tennessee remains ranked #1 for Tree Line USA in the country.

• Recognized 10 Tree Campus USA institutions of higher learning and began recruiting for Tree Campus K-12 USA, a new program for elementary through high schools.

• Partnered with local foresters, the Great Smoky Mountain National Park vegetation manager, local fire departments, and citizens to identify a suitable area for forest health demonstrations in Sevier County to address invasive plant issues.

• Partnered with Tennessee Invasive Plant Council to produce the Invasive Plant Primer for the Home Landscape brochure that provides instruction on the treatment and removal of non-native invasive plants.

• Provided education and outreach to 41 entities including master gardener groups, non-profit organizations, cities and towns, schools, and others.

A GUIDE FOR HOME LANDSCAPING

The Invasive Plant Primer for the Home Landscape brochure guides homeowners in the identification and control of invasive plants and provides tips on replanting native plants. The brochure is an example of how the Division of Forestry partners with other organizations to accomplish mutual education and outreach goals.



INVASIVE PLANT PRIMER FOR THE HOME LANDSCAPE

IDENTIFY | CONTROL | REPLANT

Tennessee Invasive Plant Council's website features a wealth of information and online tools to assist in the identification of invasive plants on private property and determine the best methods for eradication and control. Homeowners can make great strides toward tackling any invasive plant problem large or small by following these simple steps.

www.tnipc.org



WATER QUALITY

Water is a valuable product of the forest. Benefits of this product are difficult to measure, but changes in quality and quantity are 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. Since the mid-1980s, the Division has provided leadership to ensure timber harvesting operations do not pollute our creeks, streams, and rivers. The foundation of the Division's water quality program is to encourage forest landowners to implement Forestry Best Management Practices (BMPs). We assist the forestry community with BMP implementation through three major program areas: technical assistance, water quality complaint investigations, and BMP implementation monitoring.

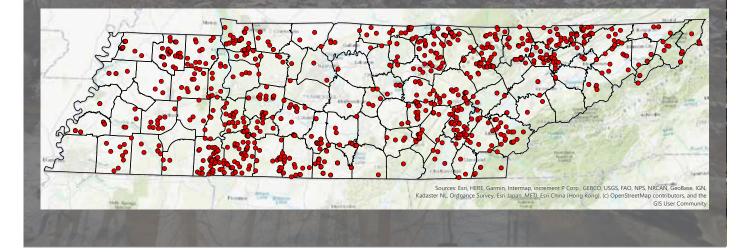
BMPs are integral to keeping Tennessee's forests healthy and preserving our water quality. Division professionals provide technical assistance to loggers and landowners by visiting logging operations to ensure BMPs are used and by conducting training events for the forest industry. In partnership with the Tennessee Forestry Association, the Division has trained and given technical assistance to more than 3,000 foresters, loggers and landowners since the start of the program.

UNIT 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 QUALITY MAP

From July 1, 2018 to June 30, 2019, the Division inspected 1,021 harvesting operations statewide and responded to 44 water quality complaints. Of the harvest sites inspected for BMP compliance, TDF found that loggers implemented BMPs 96% percent of the time. On the sites that were visited due to reported water quality complaints, 26 of the 44 had issues affecting water quality and were brought back into compliance within Tennessee's Water Quality Control Act (TCA 69-3-101) following technical consultation with the Division's water quality forester.





REFORESTATION

The Division of Forestry's seedling nursery 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.

UNIT MISSION

The mission of the Reforestation Unit is to provide high quality, affordable seedlings to Tennessee landowners and to optimize genetic improvements to increase the productivity of the state's forests.

OBJECTIVES FOR YEAR

- · Seek new avenues to market Division seedlings
- Promote a high seedling survival rate for customers by training Area Foresters on production methods and proper care and handling so they can better educate their clients.
- · Identify program improvement through process mapping.
- Develop methods to increase seedling production and inventory accuracy.

ACCOMPLISHMENTS FOR JULY 1, 2018 - JUNE 30, 2019

- Sold nearly 3.5 million seedlings to more than 1,300 customers; 60% of sales were online, 40% of sales were by phone and mail.
- Published advertisements for the nursery in the TFA Membership Directory, the TWRA Fall Hunting Guide, Tennessee Home and Farm Magazine, and Tennessee Magazine.
- Promoted seedlings at the National Wild Turkey Federation Convention.
- Promoted the nursery at the Steak and Potatoes Field Day in Crossville.
- Worked with the Tennessee Environmental Council to provide and distribute 52,100 seedlings for the Council's 250K Tree Day. Cooperating agencies and partners planted approximately 97,100 seedlings on March 23, 2019 for this event. All Tennessee counties participated, as well as ten other states.
- Partnered with Promark and Huber Engineered Woods to provide 75,000 hardwood seedlings and 260,200 pine seedlings to Tennessee landowners free of charge.

SEEDLING SALE

The East Tennessee Nursery hosted the inaugural Arbor Day Seedling Sale to celebrate the national event. It was also an opportunity for the nursery staff to make way for the new crop of trees and shrubs. Available inventory was sold at reduced prices. Visitors also enjoyed tours of the beautiful property that borders the Hiwassee River with scenic views of Chilhowee and Starr Mountains.

PLANT IN TREES.org ΤN 91 AN 63 2 ΤN Department of Agriculture



STATE FOREST MANAGEMENT

Tennessee's 15 State Forests range from mountain coves in the east to bottomlands along the Mississippi River. State Forests are managed for a mix of natural resources including game and non-game wildlife, and high-quality timber. State Forests do not feature inns, golf courses, or restrooms. However, they offer hunting, hiking, bird watching, and tranquility.

Many State Forest lands were in poor condition when acquired, either eroded or unsustainably harvested. Some were planted with trees to control erosion; others regenerated naturally into hardwood forest. Since then they have been carefully protected and managed.

Following decades of restoration, conservation, and careful management, Tennessee's State Forest system now contains an abundant supply of high-quality timber and other forest products. Timber harvested from some of these forests helps support local forest products industries. Money spent by consumers in the pursuit of recreational opportunities on the forests supports local merchants. State Forests are sites for field sessions demonstrating application of sustainable forestry practices that maintain and enhance multiple use values. Sites have been established to demonstrate how forestry best management practices maintain, protect, and enhance water quality. State Forests also provide data to characterize the resources and values provided to local communities and local economies.

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 so that those resources are protected and utilized to best meet the long-term needs of the citizens of Tennessee.

OBJECTIVES FOR YEAR

- Complete 15 compartment plans and approve all plan prescriptions before field implementation.
- Hold 2 demonstrations, tours, or field days on state forests.
- Harvest and regenerate 1,072 acres of timber.
- Complete Sustainable Forestry Initiative (SFI) 3rd party accreditation.
- Generate \$3.2 million in timber sales revenue.
- · Complete timber sales and compartment plan writing training.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

• Approved 5 compartment plan prescriptions. A compartment is a permanent, geographically recognizable unit of forestland forming the basis for planning, prescription, implementation, monitoring, and recording of forest operations.

- Completed 26 timber sales totaling 1,125 stand acres and yielding 11.1MM board feet.
- Applied \$2,860,339 in timber sale revenue toward FY 2019 budget.

• Hosted 3 Tennessee Healthy Hardwoods field days at Natchez Trace, Cedars of Lebanon, and Lone Mountain State Forests with the theme The Business of Firewood.

• Convened with Tennessee Department of Environment and Conservation (TDEC) to determine best utilization and management of state lands that comprise the Cedars of Lebanon complex in Wilson County. Management of all Tennessee Department of Agriculture (TDA) properties west of Highway 231, excluding the TDA office and maintenance facilities (approximately 1 acre), were transferred from TDA to TDEC under direct management of Cedars of Lebanon State Park. This property (approximately 2,823 acres), due to its minimal utility for applicable timber management, was determined best utilized for recreation, historical and cultural interpretation, and implementation of management practices to restore degraded cedar glade and barrens habitat. All property currently managed by TDA east of Cedars of Lebanon State Park and Highway 231 (approximately 5,264 acres) remains under TDA management.

• Formed State Forest Management Team to better communicate management goals for the unit.

WILD SIDE TV

The Division of Forestry partnered with Tennessee's Wild Side to produce a video segment overview on how active forest management can rehabilitate and perpetuate healthy and productive forests. The segment aired statewide on PBS stations.

Using Natchez Trace State Forest as a backdrop, the video demonstrated how the Division utilizes forest conservation practices to grow, maintain, and sustainably utilize timber. The

process of rehabilitation from a heavily eroded landscape to one of the most productive forests in the state took strategic planning, hard work, and patience. Now, through continued careful protection and management by foresters featured in the video including **Mollie Aldridge and Phil** Morrissey, and partnerships with Master Loggers like Gabe Beachy, Natchez Trace State Forest is a shining example of how active forest management helps to **#ProtectTNForests**.





FOREST DATA AND ANALYSIS

The Forest Data and Analysis Unit manages Division of Forestry data resources and provides analytical information services. The Unit facilitates the evaluation and implementation of pertinent technologies. 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.

UNIT MISSION

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

OBJECTIVES FOR YEAR

- Develop an online consulting forester directory.
- Improve internet connectivity and speeds for field staff.
- Procure a technology system for tracking and managing wildfires.
- Develop and maintain data systems and analytics to support the Department's Agricultural Advancement Division.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

- Launched an online consulting forester directory www.tn.gov/agriculture/forests/landowners/consulting-foresters.html
- Contracted with developer to begin development of Tennessee's fiResponse wildfire tracking system.
- Completed internet upgrades to improve speed at multiple offices.
- Upgraded 29 field computers to meet system requirements for ArcGIS pro and wildland fire tracking system software.
- Developed forest business development strategy that includes plans to produce data products that meet goals for the Agricultural Advancement Division's strategic plan.

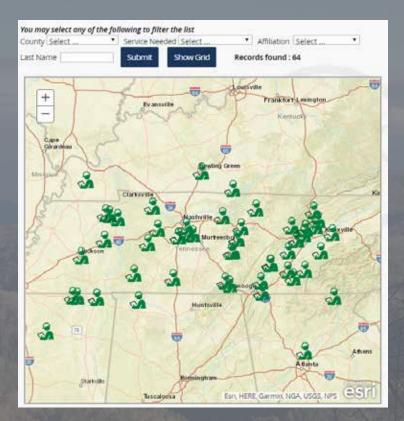
CONSULTING FORESTER DIRECTORY

The Division sponsors a Consulting Forester Directory in cooperation with the Tennessee Chapter of the Association of Consulting Foresters (ACF). The purpose of the program is to promote adoption of sound forest management practices on private forest lands in Tennessee and to encourage landowners to utilize private consultants in the ongoing management of their woodland acres.

The Division is responsible for promoting sound forest management on private lands for the production of wood products and forest-related benefits for the public good. Division personnel are available to furnish information, advice, and limited assistance about forest protection, management, and reforestation. Actual management of private forest lands is largely the role of the private sector.

Consulting foresters are independent professionals who are educated and experienced in the forestry profession. They offer a wide variety of forest management services to landowners on a fee or contract basis. As such, consulting foresters function as both technical advisors and legal agents in representing landowners.

This new online directory makes it easy for landowners to achieve their goals in managing family woodlands by connecting them with local consulting foresters who provide various land management services. In addition to contact information, the directory provides details on services provided, counties served, and professional affiliations.



https://www.tn.gov/agriculture/forests/landowners/consulting-foresters.html

FOREST INVENTORY & ANALYSIS

Forest Inventory and Analysis (FIA) is a continuous census of forest resource use, health, volumes, growth, and removals of forests. The program 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. Much of this information is collected from continuous inventory plots that have been re-measured for decades, beginning in the late 1940s.

UNIT MISSION

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

OBJECTIVES FOR YEAR

- Complete FIA plot measurements on 535 plots (7-year sampling cycle).
- Achieve USDA Forest Service FIA certification for 4 foresters.

ACCOMPLISHMENTS FOR JULY 1, 2018 - JUNE 30, 2019

- Completed FIA plot measurements on 533 plots
- Achieved USDA Forest Service FIA certification for 4 foresters

RADIO COMMUNICATIONS

OBJECTIVES FOR YEAR

- Maintain and develop effective radio communications network.
- Obtain updated FCC licenses contract.
- Purchase comparator.
- Install and implement radio over internet protocol (ROIP).

ACCOMPLISHMENTS FOR JULY 1, 2018 - JUNE 30, 2019

- Purchased a cache of 30 portable radios for out-of-state deployments.
- Acquired FCC license contract for radio broadcast network.
- Requested comparator funding via capital requests.
- Installed additional grounding to all 34 TDF repeaters.
- Reprogrammed all field radios for compatibility with new repeater in Highland Rim District.
- Relocated and rewired the Signal Mountain radio site.
- Installed base radio system at the new Crossville office.
- Upgraded antenna system at the Paris repeater site for improved coverage in West Tennessee District.
- Relocated antenna system at the Millsfield repeater site for improved coverage in West Tennessee District.

• Installed system to provide radio ROIP for Cumberland District and East Tennessee District. Identified plans for revision to complete the project by end of calendar year.



ADMINISTRATION

Spread across the state and administered from 4 district offices and 1 reforestation office, the 475 employees (307 full time, 168 seasonal) of the Department of Agriculture's Division of Forestry have responsibilities in 9 separate programs. Effective planning, priority setting, and communication within the Division are crucial to organizational effectiveness. Assistant State Foresters work with staff to refine systems that improve customer services and operational efficiencies.

UNIT MISSION

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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.

OBJECTIVES FOR YEAR

- Manage personnel, facilities, vehicles, and equipment.
- · Maintain databases on employees, facilities, vehicles, and equipment.
- Plan, allocate, and report budgets.
- Manage federal grants.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

- Filled 81 employee positions representing 17% of the work force.
- Sold real property including land on Sullivan's Ridge near Nashville that was a former fire tower site and land off Peavine Fire Tower Road near Crossville that was the site of a former fire tower and offices.
- · Completed design development for new Natchez Trace Work Center.
- Selected designer for new Chuck Swan Work Center and initiated weekly communication updates of real property to Division staff.
- Completed forestry inventory and status for two of the four districts.
- Facilitated the move and occupancy of Bruer building before and after renovation, which included new carpet, paint, lighting, and establishment of a new department training/conference room.
- Recorded \$3.7 million in federal revenue, surpassing \$3.5 million target.





COMMUNICATIONS AND OUTREACH

The Forestry Communications and Outreach Unit strives to inform and educate audiences by providing a better understanding of forestry as a discipline and the role that the Division plays in maintaining a healthy and productive forest resource. A successful effort leads to an enhanced appreciation for the state's forests, which, in turn, leads to an informed citizenry who recognize the benefits of conserving, protecting, and enhancing the resource. As a result, our society receives essential ecological benefits. The Unit also helps foster communication within the Division, a critical function of a healthy organization.

UNIT MISSION

The mission of the Forestry Communications and Outreach Unit is to communicate clearly and accurately to Tennessee's citizens information necessary to accomplish the Division's mission and to optimize in-house communications.

OBJECTIVES FOR YEAR

- Raise awareness about important and timely forest resources issues.
- Educate our youth on the importance of trees and forests in our rural lands and within our communities.
- Launch social media profile for Protect TN Forests conservation education campaign.

ACCOMPLISHMENTS FOR JULY 1, 2018 – JUNE 30, 2019

- Held 5,057 educational outreach activities reaching 52,557 children and adults statewide.
- Hosted 5th regional Southern Forest Products Export Conference in Memphis with 120 attendees who represented 71 companies/agencies/organizations from 18 states.
- Hosted 2019 Southern Group of State Foresters Summer Meeting in Franklin with over 200 regional state agency staff and partners.

• Initiated a contract with the Tennessee Forestry Association to fund a Conservation Education Coordinator who managed the Project Learning Tree Program, conducted Teacher Conservation Workshops, and trained facilitators.

• Facilitated the 70th annual Forestry Camp for 47 FFA high school students.

• Conducted 2 tree trail conservation education programs at the Tennessee Governor's Residence at the request of the First Lady's office.

• Produced 19 news releases pertaining to relevant topics including forest pests, wildland fire danger, burn permit requirements, capital improvements, tree planting, urban forestry, and cost share opportunities.

• 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 wildland fire prevention, forest health, the Tennessee Wood Products campaign, and East Tennessee Nursery tree seedlings.

• Launched social media profiles for Protect TN Forests conservation campaign including Facebook, Twitter, and Instagram to reach a broad audience and promote conservation education and Division activity in forest management.



The Division launched social media profiles for the Protect TN Forests campaign to better promote sustainable forest management and health of privately-owned woodlands and urban forests. The goals for using these social channels are to increase citizen and employees engagement, improve the Division's Forest Health and Sustainability Unit's overall responsiveness to citizens' needs and questions, increase awareness of the Division's programs, services, and benefits, educate citizens and employee on facts and trends in forest health and management, and showcase Division daily field activity.

This Facebook post from January 14, 2019 illustrates how the Division works with youth to educate future foresters. The statistics demonstrate how interacting on this platform can have a broad, low cost reach.

- Facebook: @ProtectTNForests
- Twitter: @TN_Forests
- Instagram: @ProtectTNForests



Division of Forestry staff trained 60 University of Tennessee Department of Forestry, Wildlife and Fisheries students last week in several wildfire management activities. The future firefighters learned to dig handlines, understand heavy equipment and effectiveness of mechanically created firelines, use of ignition equipment, and physical fitness requirements necessary to work on the fireline. They also got to put their fitness to the test in a somewhat iconic location.

#futureforesters #wildfirepreparedness #training Thompson-Boling Arena







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; Department of Agriculture Commissioner; the Tennessee Senate Energy, Agriculture and Natural Resources Committee; and the House Agriculture and 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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