

Sunset Public Hearing Questions for  
**State Forestry Commission**  
Created by Section 11-4-201, *Tennessee Code Annotated*  
(Sunset termination June 2017)

**1. Provide a brief introduction to the commission, including information about its purpose, statutory duties, staff, and administrative attachment.**

According to the Tennessee Code Annotated § 11-4-201, the forestry commission is made up of seven members who are citizens of the state of Tennessee, appointed by the governor and confirmed by joint resolution of the general assembly. Membership consists of two (2) owners of not more than 500 acres of forest land within the state, one (1) owner of 500 or more acres of forest land within the state, one (1) member representing the pulp and paper industry operating in the state, one (1) representing the hardwood products industry operating in the state, one (1) representing a statewide conservation organization, and one (1) member representing the public at large. The commission elects a chair, vice chair, and secretary from its membership. The commission shall meet at least four times a year.

According to T.C.A. § 11-4-201(g)(1) the commission is to “place first and foremost the welfare of the state’s forest resources in the commission’s planning and decisions, and to encourage the multiple development and use of the state’s forest resources to the benefit of all the citizens of Tennessee, including, but not limited to, the creation of a comprehensive long-range forest resource plan to integrate the division’s efforts and to implement and encourage full utilization of Tennessee’s forests and other related resources with sound conservation principles.” (g)(2) states that the commission has authority to formulate and recommend state forestry policies to the governor. 11-4-201 (h) states the commission shall have and exercise the power, duty and responsibility to formulate and recommend to the governor state forestry programs which shall include fire protection, production and distribution of high quality forest tree seedlings, promotion of reforestation, forest management assistance to landowners, educational programs, distribution of the state’s timber and forest resource information, management of state forests, management of trees in urban areas, forest products utilization, promotion of the development and expansion of markets for forest products, cooperative agreements with the federal government, and protection of forest soil and water quality and quantity.

T.C. A. § 11-4-201(i) charges the commission to (1) submit to the governor, pursuant to T. C. A. § 11-4-301(a), the names of three qualified individuals for the position of state forester when a vacancy exists in that position; (2) approve the annual budget (budget improvement request) of the division of forestry; (3) make an annual report to the governor, the commissioner of agriculture, the house committee on agriculture and natural resources, and the senate committee on energy, agriculture and natural resources or their successor committees concerning their activities and accomplishments; (4) recommend to protect, conserve and develop resources of the state to the general

assembly legislation; (5) approve the division's comprehensive long-range plan for the state's forest resources; (6) establish state forestry policies which will enable the division to manage and maintain programs; and, (7) include budget recommendations.

Funding for commission expenses is provided from the Department of Agriculture, Division of Forestry's budget per the travel regulation guidelines by the Department of Finance and Administration. Expenses include reimbursement for travel, meals, and lodging. Members are not reimbursed for their services. The commission does not have support staff per se; the administrative assistant assigned to the State Forester is the primary source for clerical assistance.

**2. Provide a list of the commission members and describe how membership complies with Section 11-4-201, *Tennessee Code Annotated*. Are there any vacancies on the commission and, if so, what is being done to fill those vacancies.**

Members of the Forestry Commission are:

<u>Member</u>	<u>T.C.A. Section 11-4-201 Compliance (Representing)</u>
Bob Qualman, Chair	Owners of less than 500 acres
Johnny Heard, V. Chair	Hardwood Manufacturers
Dorothy Mann, Secretary	Conservation Organizations
Charles Daugherty	Public at Large
Tom Midyett	Pulp and paper manufacturers
Alexandra Richman	Owners of greater than 500 acres
Michael Witt	Owners of less than 500 acres
Jai Templeton, Commissioner DoA	Ex-Officio Member
Ed Carter, Director TWRA	Ex-Officio Member
Robert Martineau, Commissioner TDEC	Ex-Officio Member

Each member is appointed by the governor and confirmed by joint resolution of the general assembly.

Bob Qualman's 1<sup>st</sup> term expired 6/30/2016 and has been reappointed by the governor for a 2<sup>nd</sup> term. Jack Holder's term (representative for the pulp and paper industry) expired 6/30/2016 and Tom Midyett has recently been appointed by the governor to represent that group. Qualman and Midyett have not been confirmed yet by the general assembly since they were just appointed and the legislators are not in session.

T.C.A. § 11-4-201(e) states that the commission should meet at least four times annually. The Commission generally meets during the months of July, October, January, and April.

**3. Does the commission’s membership include public/citizen members? Female members? Members of racial minorities? Members who are 60 years of age or older at the time of appointment?**

Membership includes at least one member who is sixty years of age or older.

Membership does not include a member who is a racial minority. A racial minority served on the Commission from July 1, 1998 until June 30, 2004.

Membership includes two females.

**4. How many times did the commission meet during fiscal years 2015 and 2016, and how many members were present at each meeting?**

The Commission met a total of nine times in fiscal years 2015 and 2016:

<u>Fiscal Year 2015</u>	<u>Attendance</u>
August 19, 2014	Six members attended (quorum)
October 28, 2014	Seven members attended (quorum)
April 23-24, 2015	Five members attended (quorum)
June 19, 2015	Seven members attended (quorum)

<u>Fiscal Year 2016</u>	<u>Attendance</u>
August 20, 2015	Five members attended (quorum)
October 14, 2015	Five members attended (quorum)
December 17-18, 2015	Six members attended (quorum)
February 22, 2016	Six members attended (quorum)
April 27, 2016	Seven members attended (quorum)

**5. What per diem or travel reimbursement do members receive? How much was paid to commission members during fiscal years 2015 and 2016?**

Commission members receive standard state travel reimbursement as outlined in travel regulations.

In 2015 Commission members were paid a total of \$4067.35 for travel reimbursement.

In 2016 Commission members were paid a total of \$3795.90 for travel reimbursement.

**6. What were the commission’s revenues (by source) and expenditures (by object code) for fiscal years 2015 and 2016? Does the commission carry a reserve fund balance and, if so, what is the total of that reserve fund balance?**

The Commission had no revenues for 2015 and 2016.

Expenditures for 2015

Object	Expenditures
Travel	\$5,814.56

Expenditures for 2016

Object	Expenditures
Travel	\$5,204.82

**7. Is the commission subject to Sunshine law requirements (Section 8-44-101 et seq., *Tennessee Code Annotated*) for public notice of meetings, prompt and full recording of minutes, and public access to minutes? If so, what procedures does the commission have for informing the public of its meetings and making its minutes available to the public?**

The commission is subject to Sunset law requirements. The Department of Agriculture provides public notice of meetings pursuant to the requirements of T. C. A. § 8-44-101 et seq. The administrative assistant for the state forester takes meeting minutes, which are then approved by a motion, seconded, and then approved by the full commission. Copies of the meeting minutes are on file in the Division of Forestry office, Bruer building, Ellington Agricultural Center, Nashville and open for public viewing during regular business hours.

**8. What policies and procedures does the commission have in place to address potential conflicts of interest by commission members, staff and employees?**

The commission has no unique policies on conflicts of interest, however, commission members and employees of the department are required to comply with all state laws and executive orders regarding conflicts of interest

**9. What were the major requirements of the commission during fiscal years 2015 and 2016?**

The commission:

- supported the Division of Forestry and other partner agencies and organizations in their efforts on the State Forest Resource Assessment and Strategy Plan.
  - attended statewide public meetings on the State Forest Resource Assessment and Strategy Plan.
  - reviewed and approved the Tennessee Forest Resource Assessment and Strategy as the Division of Forestry's long range plan for the State's forest resources.
  - discussed and received comments on the implementation of the Tennessee Forest Resource Assessment and Strategy.

- presented the Forestry Commission's 2014 and 2015 Annual Reports to the General Assembly's Senate Energy, Agriculture & Natural Resources Committee and the House Agriculture and Natural Resources Committee.
- reviewed and approved the Division of Forestry's annual activities report for 2015 and 2016.
- reviewed and approved the Division of Forestry's operating and improvement budgets and seedling production and price schedules for fiscal years 2015 and 2016.

**10. Has the Forestry Commission approved or helped develop the forestry division's "comprehensive long-range plan for the state's forest resources" as authorized by Section 11-4-201(i)(5), Tennessee Code Annotated? If so, when was the plan last revised and what role did the commission play? Please attach a copy of the plan.**

The Forestry Commission reviewed and approved the Tennessee Forest Action Plan (*attached*). This plan was last revised in November, 2015.

**11. Does the commission submit an annual report to the Governor, Commissioner of Agriculture, and designated committees within the legislature as required by Section 11-4-201(i)(3), Tennessee Code Annotated? Please attach copies of the last annual report. What other reports, if any, does the commission prepare on its operations, activities and accomplishments? Who receives these reports? Please attach copies.**

Yes. The commission submits an annual report to the House Agriculture and Natural Resources Committee and the Senate Energy, Agriculture and Natural Resources Committee and the Governor. Copy of the 2015 report is *attached*.

**12. Section 11-4-201(i)(6), Tennessee Code Annotated, provides that the commission will establish state forestry policies. What policies have been developed by the commission and where are they published?**

The commission has not developed any state forestry policies. The commission is briefed frequently on the programs and policies of the Division of Forestry. The commission provides valuable guidance on forestry programs and services provided by the Division of Forestry. The commission approves the division's seedling sales policies annually in April, including pricing and policies on seedling donations. These approvals are recorded in the meeting minutes. The commission is briefed from time to time on the division's annual work plan and performance measures.

**13. What recommendations concerning state forestry programs have been made by the commission during the last two fiscal years, pursuant to the commission's powers, duties, and responsibilities as stated in Section 11-4-201(h), Tennessee Code**

***Annotated, and how do those recommendations and programs conform to the statement of legislative intent stated in Section 11-4-201(g)?***

Other specific and reoccurring actions taken by the commission during state fiscal years 2015 and 2016 include:

- Toured the Division's East Tennessee Seedling Nursery, reviewed the operating budget including fixed and variable expenses and sources of revenue. The visit and review resulted in recommendations regarding the production of seedlings and the improvement of customer services (*attached*).
- Discussed and approved the Division's tree seedling production and pricing levels for the 2015-2016 season.
- Stayed abreast through presentations and updates of forest pest outbreaks and associated control measures.
- Small landowners (<500 acres) who received professional assistance and services from the Division of Forestry shared their experience in partnering with the state and improving the forests.
- Received updates on the implementation of Plan 2020, a new way of managing the resources on our state forest system.
- Reviewed the Division's Fiscal Year Budget as well as the Budget Reduction plan.
- Discussed the Division's emergency response effort during and following the ice storm of 2015.
- Stayed abreast of proposed legislation that could potentially impact the forestry community.

The commission frequently provides recommendations and guidance on the division's eight core businesses: forest resource protection, forest resource management, urban forest resource management, reforestation, state forest management, forest businesses, forest data and technology, and environmental affairs and public outreach.

**14. Describe any items related to the commission that require legislative attention and your proposed legislative changes.**

There are currently no proposed legislative changes

**15. Should the commission be continued? To what extent and in what ways would the absence of the commission endanger the public health, safety or welfare?**

Yes. The commission provides valuable leadership, guidance and advice on public programs and policies for the Division of Forestry. The State Forester and state headquarters staff greatly appreciate the advice and wisdom of the members of the Forestry Commission in carrying out the policies and programs affecting forestry in Tennessee.

**16. Has the commission developed and implemented quantitative performance measures for ensuring it is meeting its goals? If the commission has developed and implemented quantitative performance measures, please answer questions 17 through 24. If the commission has not developed quantitative performance measures, proceed to question 25.**

The Commission is briefed from time to time on the division's annual work plan and performance measures. The Commission itself does not have any performance measures.

**17. What are your key performance measures for ensuring the commission is meeting its goals? Describe so that someone unfamiliar with the program can understand what you are trying to measure and why it is important to the operation of your program.**

**18. What aspect[s] of the program are you measuring?**

**19. Who collects relevant data and how is this data collected (e.g., what types information systems and/or software programs are used) and how often is the data collected? List the specific resources (e.g., report, other document, database, customer survey) of the raw data used for the performance measure.**

**20. How is the actual performance measure calculated? If a specific mathematical formula is used, provide it. If possible, provide the calculations and supporting documentation detailing your process for arriving at the actual performance measure.**

**21. Is the reported performance measure result a real number or an estimate? If an estimate, explain why it is necessary to use an estimate. If an estimate, is the performance measure result recalculated, revised, and formally reported once the data for an actual calculation is available?**

**22. Who reviews the performance measures and associated data/calculations? Describe any process to verify that the measure and calculations are appropriate and accurate.**

**23. Are there written procedures related to collecting the data or calculating and reviewing/verifying the performance measure? Provide copies of any procedures.**

**24. Describe any concerns about the commission's performance measures and any changes or improvements you think need to be made in the process.**

**25. Please list all commission programs or activities that receive federal financial assistance and, therefore are required to comply with Title VI of the Civil Rights Act of 1964. Include the amount of federal funding received by program/activity.**

Commission does not receive federal financial assistance.

If the commission does receive federal assistance, please answer questions 26 through 33. If the commission does not receive federal assistance, proceed directly to **question 32**.

**26. Does your commission prepare a Title VI plan? If yes, please provide a copy of the most recent plan.**

**27. Does your commission have a Title VI coordinator? If yes, please provide the Title VI coordinator's name and phone number and a brief description of his/her duties. If not, provide the name and phone number of the person responsible for dealing with Title VI issues.**

**28. To which state or federal agency (if any) does your commission report concerning Title VI? Please describe the information your commission submits to the state or federal government and/or provide a copy of the most recent report submitted.**

**29. Describe your commission's actions to ensure that commission staff and clients/program participants understand the requirements of Title VI.**

**30. Describe your commission's actions to ensure it is meeting Title VI requirements. Specifically, describe any commission monitoring or tracking activities related to Title VI, and how frequently these activities occur.**

**31. Please describe the commission's procedures for handling Title VI complaints. Has your commission received any Title VI-related complaints during the past two years? If yes, please describe each complaint, how each complaint was investigated, and how each complaint was resolved (or, if not yet resolved, the complaint's current status).**

**32. Please provide a breakdown of current commission staff by title, ethnicity, and gender.**

The commission does not have staff. The breakdown of the commission membership is as follows:

Bob Qualman	Chair	White	Male
Johnny Heard	Vice – Chair	White	Male
Dorothy Mann	Secretary	White	Female
Charles Daugherty	Member	White	Male
Tom Midyett	Member	White	Male
Alexandra Richman	Member	White	Female
Michael Witt	Member	White	Male

**33. Please list all commission contracts, detailing each contractor, the services provided, the amount of the contract, and the ethnicity of the contractor/business owner.**

The commission has not entered into a contract agreement during the past five fiscal years.

**Action Steps to Improve Seedling Sales and Operations**  
**At Department of Agriculture Division of Forestry**  
**East Tennessee Seedling Nursery**  
**Delano, TN**

*Following is a characterization of activities to improve nursery seedling sales and operations as identified by the Tennessee Forestry Commission during their April 27<sup>th</sup>, 2016 meeting and summarized by Division of Forestry staff*

**1] Top priority actions that have the potential for immediate or near future impacts on seedling sales and revenue.**

Activity	Action Steps	Responsible Person
Cooler capacity at Pinson	Investigate availability and cost of drop off coolers. Consult with large seedling vendors to determine needs/deployment issues Develop 3 options for use of drop off coolers for this shipping season.	<ul style="list-style-type: none"> <li>• Greg Zickgraff – project manager</li> <li>John Conn to play a supporting role</li> </ul>
Sample plots to show pine growth comparison	<ul style="list-style-type: none"> <li>• Identify planting sites that utilized TDF and/or other seedlings.</li> <li>• Set up initial tour of TDF leadership to review sites.</li> <li>• Set up secondary tour for TFC.</li> <li>• Develop process to show sites to potential vendors</li> </ul>	<ul style="list-style-type: none"> <li>• David Arnold – project manager               <ul style="list-style-type: none"> <li>○ Pete Moditz and Paul Whaley – help find sites</li> <li>○ Dave Walters – arrange for tours</li> </ul> </li> </ul>
Identify major current buyers – contact yearly (phone call, cover letter, flyer)	<ul style="list-style-type: none"> <li>• Develop list of large volume seedling buyers for the last 5 years.</li> <li>• Develop “Thanks for your business” letter from the State Forester.</li> <li>• Develop “Thanks for your business” flyer or business cards.</li> <li>• Call customers</li> </ul>	<ul style="list-style-type: none"> <li>• David Arnold – project manager               <ul style="list-style-type: none"> <li>○ John Conn – develop 5 year list</li> <li>○ Jere Jeter – write State Forester letter</li> <li>○ Tim Phelps – develop flyer and business cards</li> <li>○ Senior Staff – call and express appreciation for buying TDF seedlings</li> </ul> </li> </ul>
Contact potential new large buyers yearly (phone call flyer)	<ul style="list-style-type: none"> <li>• Develop a list of tree planting vendors and forestry consultants that operate or potentially would operate in Tennessee (include vendors from all regions, not just the south).</li> <li>• Develop marketing package and mail to potential customers.</li> <li>• Follow-up by contacting potential customers by phone</li> </ul>	<ul style="list-style-type: none"> <li>• David Arnold – project manager               <ul style="list-style-type: none"> <li>○ John Conn – develop potential customer list</li> <li>○ Tim Phelps – develop marketing package</li> <li>○ Senior Staff – call customers and provide follow-up information</li> <li>○ Jere will contact Jake Almond</li> </ul> </li> </ul>

**2] Project level activities that involve significant time or long term relationships. A project manager is necessary for success.**

Activity	Action Steps	Responsible Person
Identify other marketing advantages (Our seedlings are better because...)	<ul style="list-style-type: none"> <li>• Develop marketing plan that includes:               <ul style="list-style-type: none"> <li>○ Products/services</li> <li>○ Place</li> <li>○ Price</li> <li>○ Business strategies</li> <li>○ SWOT analysis</li> <li>○ Target Audiences</li> <li>○ Key Messages</li> <li>○ Marketing strategy</li> <li>○ Timeline</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• David Todd – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ David Arnold</li> <li>○ John Conn</li> <li>○ David Todd</li> <li>○ Dave Walters</li> <li>○ Tim Phelps</li> <li>○ Debbie Ball</li> <li>○ Corrine Gould</li> </ul> </li> </ul>
Cross agency promotions (NRCS, etc....)	<ul style="list-style-type: none"> <li>• Develop list of agencies/organizations that have constituents that use tree seedlings</li> <li>• Develop marketing package and mail to agencies/organizations</li> <li>• Follow-up by contacting agencies by phone</li> </ul>	<ul style="list-style-type: none"> <li>• David Arnold – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ John Conn</li> <li>○ David Todd</li> <li>○ Dave Walters</li> <li>○ Tim Phelps</li> <li>○ Debbie Ball</li> <li>○ Corrine Gould</li> </ul> </li> </ul>
Facilitate tree planters/landowner contact	<ul style="list-style-type: none"> <li>• Investigate the VDoF landowner aggregation model for implementation in Tennessee</li> <li>• Determine if this approach is applicable to Tennessee</li> <li>• If applicable, Develop landowner aggregation program for Tennessee’s cost-share programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Heather Slayton – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ David Arnold</li> <li>○ John Conn</li> <li>○ John Woodcock</li> <li>○ Kelly Lang</li> </ul> </li> </ul>
Post on website seedling characteristics	<ul style="list-style-type: none"> <li>• Develop content for website posting</li> <li>• Build awareness of information on website (internal and external)</li> </ul>	<ul style="list-style-type: none"> <li>• Tim Phelps – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ David Arnold</li> <li>○ John Conn</li> <li>○ Heather Slayton</li> </ul> </li> </ul>

### 3] Short term tasks that involve compiling information

Activity	Action Steps	Responsible Person
Investigate potential trade shows	<ul style="list-style-type: none"><li>• Research trade show venues that will allow exposure to potential customers</li><li>• Decide on priority trade shows to attend</li></ul>	<ul style="list-style-type: none"><li>• Tim Phelps</li></ul>
Ask adjoining state TWRAs to list us as a contact	<ul style="list-style-type: none"><li>• Compile contact information for adjoining state wildlife agencies.</li><li>• Provide applicable information to be listed as a source of seedlings</li></ul>	<ul style="list-style-type: none"><li>• John Woodcock</li></ul>

**4] Activities that deal with nursery operations that potentially change or improve operations and processes.**

Activity	Action Steps	Responsible Person
Review # of loblolly pine varieties offered	<ul style="list-style-type: none"> <li>• Assess the demand for different loblolly pine genetic varieties</li> <li>• Develop a recommendation on number of varieties to offer</li> </ul>	<ul style="list-style-type: none"> <li>• John Conn</li> </ul>
Consider an earlier per-order date	<ul style="list-style-type: none"> <li>• Review ordering methodology from other states</li> <li>• Assess the applicability of other state methodologies to Tennessee</li> <li>• Develop a recommendation for a pre-order date.</li> <li>• Investigate contract growing</li> </ul>	<ul style="list-style-type: none"> <li>• John Conn               <ul style="list-style-type: none"> <li>○ Ward Tarkington</li> <li>○ David Todd</li> </ul> </li> </ul>
Identify and track variable costs	<ul style="list-style-type: none"> <li>• Have 3<sup>rd</sup> party review of variable and fixed cost classifications</li> <li>• Develop a recommendation on refined fixed and variable cost classifications</li> </ul>	<ul style="list-style-type: none"> <li>• David Arnold – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ John Conn</li> <li>○ Mike Witt</li> </ul> </li> </ul>
Review pine production – reduce (5 million produced; 2 million sold)	<ul style="list-style-type: none"> <li>• Review past 5 years production/sales numbers</li> <li>• Project future demand for pine seedlings</li> <li>• Develop a recommendation for pine seedling production</li> </ul>	<ul style="list-style-type: none"> <li>• David Todd – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ David Arnold</li> <li>○ John Conn</li> <li>○ George Hernandez</li> </ul> </li> </ul>
Ask Delano employees for suggestions	<ul style="list-style-type: none"> <li>• Develop process for input</li> <li>• Convene meeting</li> <li>• Summarize results</li> </ul>	<ul style="list-style-type: none"> <li>• Dave Walters – project manager</li> <li>• Team members:               <ul style="list-style-type: none"> <li>○ David Arnold</li> <li>○ John Conn</li> </ul> </li> </ul>



Department of  
**Agriculture**

| Forestry

# Tennessee Forest Action Plan 2011-2015

## Five-Year Review

November 2015



# Implementation Highlights

Since the development and implementation of Tennessee's Forest Action Plan in 2010, the Tennessee Department of Agriculture Division of Forestry (TDF) and our partners have addressed strategies and implemented new actions as well as continued ongoing programs in support of the plan. As a result, all TDF activities have included targeted actions to strengthen our partnerships. Highlights are listed by State and Private Forestry's National Priorities and Objectives below.

*Partner organizations consulted the Action Plan as they developed their own plan.*

Tennessee's Forest Action Plan identified 35 issues that affect sustainability of the services and benefits we expect from Tennessee's forests. Strategies were then developed to address those issues, and goals were established as targets for the strategies. In total, the Plan contains 53 strategies, all directed toward the 35 established goals. The issues and goals fell into seven general categories: Forest Health, Public Benefits, Private Lands, Urban Forestry, Forest Industry, Education and Outreach, and Wildlife.

Most of the activities fell in the Plan's category of Public Benefits, and in particular with Ecosystem Services and Stream Buffer issues. The Forest Health and Private Lands categories also contained some of the more frequently used strategies. It is important to note that all 53 of the plan's strategies have been implemented to some degree. In total, the implemented strategies are positively impacting all 35 issues identified in the Plan through substantive progress towards the respective targeted goals.

Tennessee's FAP emphasizes the role forested watersheds play in conserving, protecting, and enhancing public use water supplies and in partnering with like-minded organizations. One example of this dual focus is the Tennessee Hemlock Conservation Partnership whose focus is to manage hemlock woolly adelgid in riparian hemlock forests throughout middle and east Tennessee.

We discovered that most partner organizations had consulted the Action Plan as they developed their own organization's strategic plan or annual work plan. We also found that several of the strategies were already part of the organizations' work plans prior to receiving the Forest Action Plan. However, several organizations had adopted one or more of the Plan's strategies as new emphasis in their plans. In a few situations the organizations formed partnerships to implement particular strategies.

The Tennessee Forest Action Plan has been an effective tool in giving focus and coordination to forestry activities within the Division and its partners in Tennessee. *We are certain that the three national priorities and eleven objectives have been adequately addressed in our current Action Plan and require no amendments to continue to guide us forward.*

## **1. Conserve Working Forest Landscapes**

### **1.1. Identify and conserve high priority forest ecosystems and landscapes**

The core philosophy of Tennessee's Forest Action Plan was to recognize that conserving working forests is critical to a sustainable economy and a healthy citizenry. By accentuating the values that forests produce for their owners and for society, landowners and stakeholders are more likely to conserve their forests. Therefore, forest owners (public, private or corporate) must have access to information, programs and professionals that help them realize value. The team recognized that all forests have value yet some are especially important.

*Conserving working forests is critical to a sustainable economy and a healthy citizenry.*

From Tennessee Forest Action Plan "...The forest resource benefits, along with the most serious threats and risks to the forest resource, were identified with input from many natural resource professionals working for several different organizations in addition to input from the public. TDF then used spatial analysis to determine locations where threats and risks to the forest resource were most prevalent. The results of the analysis were displayed on the maps.... These areas are the priority areas of the state, and should provide integrated program delivery."

Our action plan identifies priority ecosystems and landscapes, especially those that are threatened by urbanization and parcelization but the plan mostly emphasizes improving water quality by targeting resources that protect watersheds at a local scale.

A survey of Tennessee Action Plan implementation found that the state's various land trust organizations are consulting the Plan's Forest Legacy eligibility layer to identify watersheds to target for conservation easements and protection of unique forested landscapes. These same organizations are seeking favorable tax treatment for forest landowners who commit to keeping their forest as forest, providing numerous off-site benefits to the public.

The Tennessee Forest Legacy Program provides a safety net to protect environmentally significant resources in Tennessee from conversion to non-forestry uses by purchasing conservation easements or title to threatened places. During the 2011-2015 period, we closed on the North Cumberland Conservation area/ Emory River Forest Legacy tract of 5,247 acres that protects reintroduced elk herds, a significant portion of cerulean warbler habitat, Indiana bat habitat and the headwaters of the Emory River, a watershed that supplies water for more than 30,000 Tennesseans. We also closed on the Fiery Gizzard Conservation Easement on 3,282 acres that helps protect the Fiery Gizzard Trail which was called one of the top 25 hiking trails in the United States by Backpacker magazine. Other Legacy projects during the review period included securing conservation easement on Carter Mountain Working Forest-4,000 acres, Sherwood Forest fee Purchase- 4,315 acres, Devil's Racetrack -1,928 acres, and Grassy Cove - 1,000 acres.



**Emory River Forest Legacy Tract**

State Forests are managed for multiple uses by TDF and are public demonstrations of working forests. During this review period Plan 2020: Harvest Plan for Sustainable State Forests was finalized and published, 39 compartment plans (~1,000 acres each) have been approved. Plans included regenerating 105 stands that cover 5,433 acres with a goal of maintaining healthy forests. Managing age class distribution and species composition is facilitated by utilizing science based forest stand regeneration and thinning practices. During the compartment planning process unique areas are identified and are coded with the appropriate management practices to be protected and/ or restored. Also during the compartment plan process, Element of Record (EOR) files are consulted to look for any documented rare or endangered species. If any are found, appropriate action and management is planned. Compartment plans are sent for review to other agencies, mainly State Parks and Tennessee Wildlife resources Agency (TWRA), who work simultaneously with or adjacent to state forest property.

State forests earned FSC re-certification (2002 – 2007) then chose to let the certification expire. TDF staff has been actively researching the appropriate certification organization that best fits with management goals of TDF and one that can be used as an example for private

landowners. We are currently reviewing Sustainable Forestry Initiative (SFI) and American Tree Farm.

Land acquisitions to State Forest properties included 101 acres from Sequatchie LLC to Bledsoe State Forest.

### 1.2. Actively and sustainably manage forests

Almost everything the Division of Forestry and its partners do relates to sustainably managing forests in Tennessee. Reported Landowner Assistance accomplishments over the five year period include conducting 13,300 activities that touched 1.35 million people impacting some 1.2 million acres. In addition to maintaining and improving our core programs we established some new initiatives that included developing and distributing a Plan Writer for improved management plans, increasing partnerships with consulting foresters, and increasing efforts to support vendors capable of helping landowners implement forestry practices. One simple action taken was distributing forest estate planning guides to landowners and providing introductory estate planning training for foresters.



*Conducted 13,300 activities that touched 1.35 million people impacting some 1.2 million acres.*

Forest Certification training sessions were held to educate non-industrial private landowners, corporate landowners, state and federal agency personnel, natural resource consulting professionals and non-governmental organizations on the various aspects and requirements for verifiable certification. Global market demands continue to drive product certification, however, because of their independent nature; southern forest owners have shown a low interest in forest certification. Participants included representatives from the major certification systems as well as a neutral moderator. Additionally we partnered to facilitate Tennessee's American Tree Farm 3rd Party audit that verified program participants met the program requirements and are sustainably managing their forests.

During the review period, ten (10) Tennessee Healthy Hardwoods field days were hosted for some 975 forest landowners. Topics covered include: income opportunities, artificial hardwood regeneration, importance of forested watersheds, forest health and timber sale administration. One legislative tour was conducted. Response to these programs was exceptional with many landowners expressing great thanks for the information and connections.

## 2. Protect Forests from Harm

### 2.1. Restore fire-adapted lands and reduce risk of wildfire impacts

TDF promotes a broad approach to community protection from wildfire, which is called Fire Adapted Communities (FAC). FAC encompass many facets of community wildfire protection, while taking into account the need for restoring or adapting certain landscapes to wildfire and prescribed fire. One part of the Tennessee FAC approach is the FIREWISE program, which educates community members to wildfire hazards.

*Spread of a wildfire was stopped when it reached hazard mitigated homes.*

To promote action within the community to protect itself from wildfire is the Community Wildfire Protection Plan (CWPP). The CWPP becomes the guide for the community to undertake projects to mitigate its wildfire hazards. These projects may be eligible for grant support from the TDF and Resource Conservation and Development Council partnership with funding from the USDA Forest Service.

This approach has demonstrated that it can successfully protect communities. In at least one instance, in the Shagbark Community of Sevier County, the spread of a wildfire was stopped when it reached hazard mitigated homes.

A number of wildfire prevention projects are being done. The Tennessee Wildfire Cooperative sub-committee for Wildfire Prevention is made up of federal and state land management agencies. Its focus is to promote wildfire prevention in public venues such as sporting events.

Another successful wildfire prevention endeavor is the use of mass media by TDF. A dozen outlets of TV and radio are used to promote burn permits, reduce arson fires, and other fire related messages across the state. As a result the number of wildfires decreased by fifty percent over the past decade.

TDF has also promoted the use of fire in Tennessee. The Division helped create the Tennessee Prescribed Fire Council. The Council promotes and protects the appropriate use of fire. A product of this effort is the Tennessee Prescribed Burn Act which provides liability protection for individuals who are Tennessee Certified Prescribed Burn Managers. To become a Burn Manager one must successfully complete the twenty hour training course. Since its inception over two hundred people have become Tennessee Certified Prescribed Burn Managers.

The Tennessee Prescribed Fire Council will be involved in promoting the use of prescribed fire in the establishment of shortleaf pine and other fire dependent species.

TDF also established a new on-line burn permit system giving permit writers ability to issue burn permits statewide. The new system was able to handle issuing 15,000 permits on a single day.

Vacant radio communications positions were filled and radio microwave system upgraded from analog to digital components to provide consistent radio traffic operations.

## 2.2. Identify, manage, and reduce threats to forest and ecosystem health

To address the needs of the public for forest health & threat information, we established and promoted ProtectTNforests.org. This website seeks to minimize resource losses from forest insects and diseases by

informing and educating its targeted audience – homeowners and forest landowners – about forest pests and what they can do to help protect Tennessee’s trees and forests. Partners in forest health also created and held its first Tennessee Forest Health Council. This group consists of representatives from all agencies and organizations involved in promoting and improving the health of our forests. Their goals are to gather and disseminate accurate and timely forest health information, advise state and federal agencies, NGOs, and others and to promote consistent outreach to the public.



In 2011 foresters identified, delimited and developed strategies to manage the Thousand Cankers Disease (TCD Action Plan) and Emerald Ash Borer. As a result we initiated our ‘Don’t Move Firewood’ campaign. Additionally, we implemented the Hemlock Woolly Adelgid Strategic and Management Plan in partnership with the Nature Conservancy and other non-government organizations such as the Tennessee Exotic Pest Plant Council, and conducted southern pine beetle population surveys. Efforts to reduce threats from gypsy moth included; incorporating newer maps, establishing immediate trap response system feedback, egg mass surveys and aerial treatment of gypsy moth infestations.

A major accomplishment during this review time was the development & implementation of a more efficient, timely, and accurate monthly forest health occurrence reporting system and incorporation of the use of current technology such as Forest Disturbance Mappers and real

time satellite imagery. These actions led to launching a public reporting system through [www.protecttnforests.org](http://www.protecttnforests.org) and EDD Maps.

Additional actions that reduced threats include:

- Developed & implemented the Rapid Forest Health Assessment (RaFHA) report writer, a quick and informative report geared to inform landowners of the condition and threats to their forests much quicker than time waiting on a more comprehensive Stewardship plan.
- Conducted frequent public outreach events to create awareness of current forest health issues & share information on appropriate management strategies.
- Facilitated the detection and removal of non-native invasive plants in several parks and natural areas around Metro Nashville.
- Partnered with the NRCS and the USFS on the Two Chiefs Initiative to address water quality and forest health issues in southeastern Tennessee.
- Developed an on-line burn permit system to quickly assist landowners in getting a burn permit and inform them of weather conditions.
- Launched Healthy Trees, Healthy Tennessee in partnership with the Nature Conservancy; an initiative that aims to improve the health of city trees by engaging people in early detection, tree health monitoring, tree planting and stewardship.
- Piloted online firewood vendor directory – FirewoodScout.org – in addition to promotion of “Don’t Move Firewood” messaging; the online directory, developed by the Nature Conservancy and the Southeast Michigan RC&D Council, is a proactive effort to connect firewood consumers with local and/or certified heat-treated firewood producers.

### **3. Enhance Public Benefits from Trees and Forests**

#### **3.1. Protect and enhance water quality and quantity**

Emphasis was placed on the importance of streamside management zones during TDF educational programs within the last five years. Water quality BMP education was made available to all TDF personnel, and particularly new hires. This resulted in greater confidence in dealing with water quality issues and increased participation. One hundred six (106) BMP education classes were facilitated for 2,201 loggers, foresters and others during the review period. Additionally TDF assisted TDEC in 4 Notices of Violation and 1 Director's Order to mitigate stream pollution due to improper logging. TDF completed the next round of the BMP implementation survey.

Tennessee Healthy Hardwoods landowner field days provided training to landowners on the value of BMP's and protecting streamsides. TDF's water quality forester and staff attended various storm water conferences in order to network with personnel from those agencies, and got acquainted with techniques involved in that work. Our agency sought the aid of the Tennessee Storm Water Association in order to develop water resource standards for urban forestry and to better provide outreach materials for Municipal Separate Storm Sewer Systems (MS4s).

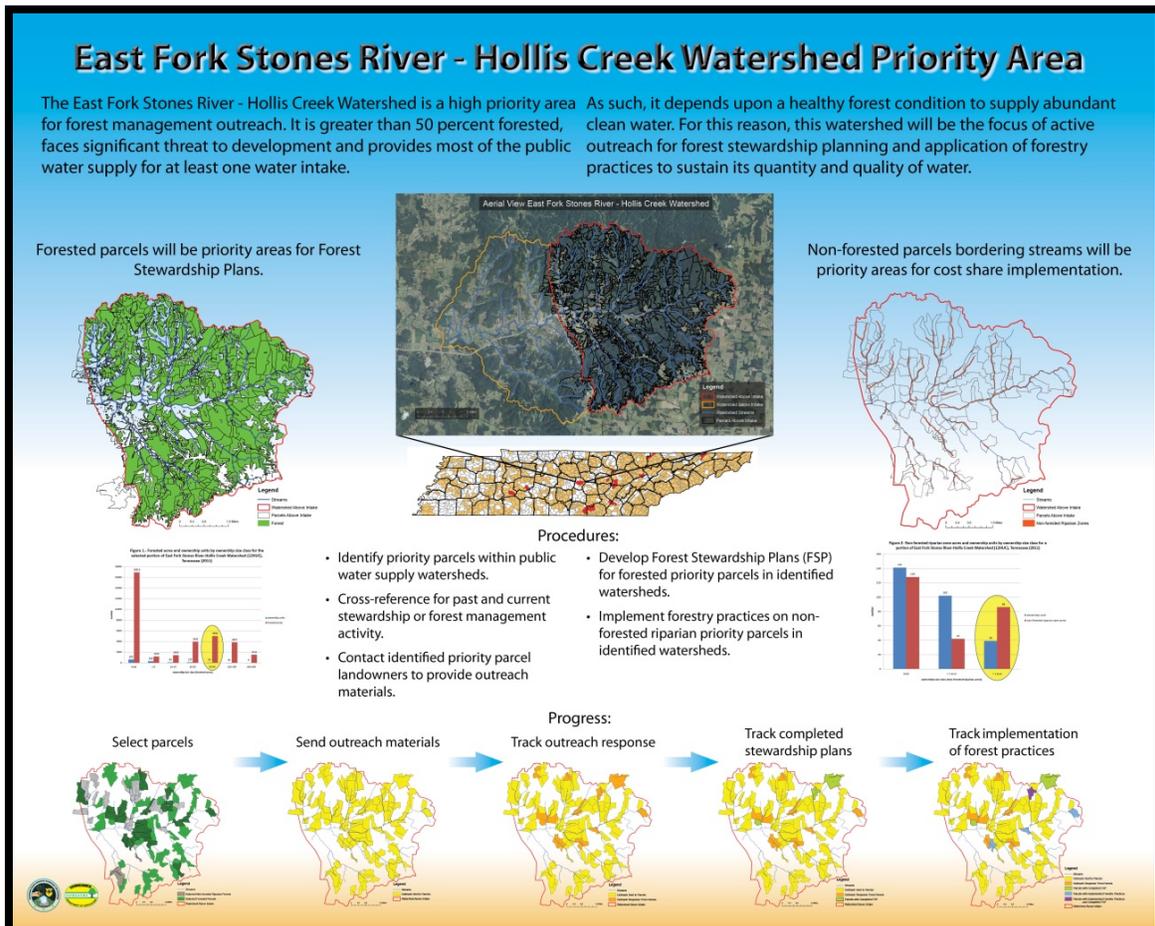
The Division implemented a 'priority watershed' initiative, where good forest management and buffers were used to protect watersheds that contain public water supply intakes, especially by reaching out to landowners owning lands in those specific forested watersheds. NRCS partnered in this initiative by providing cost share for forest management practices and for installing the buffers.

The goal of this project seeks to conserve, protect, and enhance priority public use water supplies through active forest management planning and implementation of sound forestry practices on private lands. Following is a description of how priority watersheds and landowners were identified to allow prioritization of limited technical and financial resources.

*'Priority watershed' initiative - where good forest management and buffers were used to protect watersheds that contain public water supply intakes.*

Fourteen priority watersheds were identified at the 12 hydrological unit code (HUC) level. The resolution offered by 12 HUC watersheds (25,000 to 50,000 acres) helped clarify planning, mapping, communicating, and implementing project priorities and activities. Characteristics of priority watersheds identified included: 1) vegetation exceeding 50% forested, 2) significant threat to development, and 3) provide public water supply with at least one water intake.

Direct mailings, individual personal communications, participant/partner meetings, and other strategies were used to encourage priority landowners to participate in activities that maintain forests in priority watersheds. Many of these landowners were made aware of the role their forestland plays in protecting local water supply and received information or attended a meeting on the services/programs available through natural resource management agencies/organizations that would help them “keep forests as forests, plant and/ or protect trees along creeks, and implement forestry best management practices when harvesting timber”.

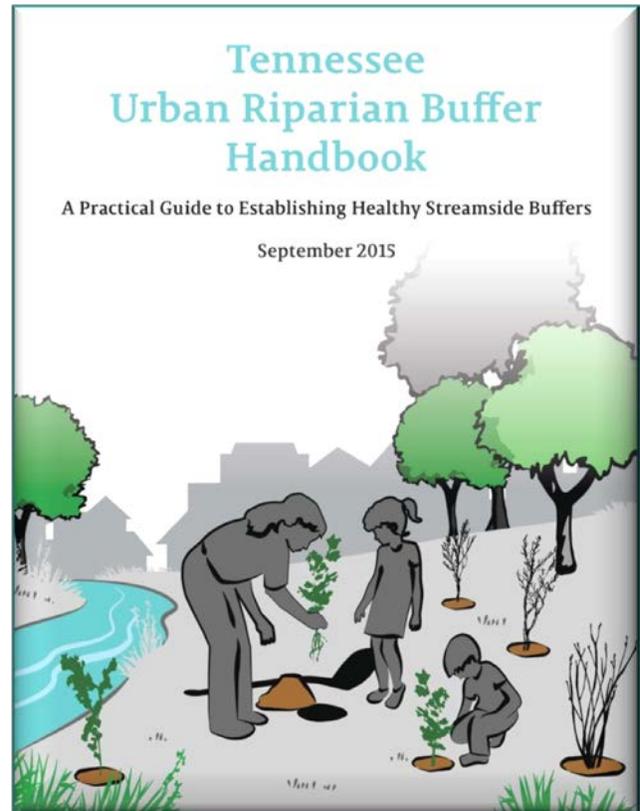


**Priority Watershed Initiative Example**

TDF partnered with Nashville metro government and local non-profit organizations to implement a “Clean Water from Urban Forests” project that planted native trees on public and private properties along streams in 8 priority watersheds in Davidson County. This successful project involved 2,800 volunteers, who spent 7,700 hours in planting 28,000 trees on 30,400 feet of buffer. The Tennessee Urban Riparian Buffer Handbook was also created as a guidebook for other municipalities to follow.

A separate riparian forest buffer initiative is being directed toward impaired streams, and is being led by NRCS. Tennessee Wildlife Resources Agency (TWRA), Tennessee Department of Environment and Conservation (TDEC), and TDF are partnering with NRCS in this initiative. In this program, NRCS planted trees on 30,004 acres under the Wetlands Restoration Program from 2010-2014.

Various land trust organizations are consulting the Tennessee Forest Action Plan’s Forest Legacy eligibility layer to identify watersheds to target for conservation easements and protection of unique forested landscapes.



### **3.2. Improve air quality and conserve energy**

Air quality and energy conservation issues were addressed within our Urban Forestry program. Besides the ongoing efforts to increase Tree City and Tree Line outreach, our partners have been focused on surveying and improving urban canopy and increasing the understanding that the urban forests play in mitigation of pollution and storm water runoff. The Tree Line program requires utilities to include tree related energy efficiency information to their communities. TDF surveyed canopy cover in Memphis, the Tri-State area, and eleven other cities. An urban partnership between foresters and city planners has begun correlating increased flooding with reduced canopy cover in certain sectors of one city.

### 3.3. Assist communities in planning for and reducing forest health risks

Partnering with Tennessee communities increased during the review period in the form of community wildfire prevention planning, forest health quarantine meetings and canopy analyses for Livingston, Tullahoma, Johnson City, Lakeland, Pigeon Forge, Bristol, Brentwood, Martin, Parsons, Memphis and Knoxville. Increased efforts in working with arborists and utility companies resulted in Tennessee having the highest number of utilities being recognized as Tree Line USA. The Tree Campus USA program in Tennessee certified six campuses across the state. Urban Foresters also contributed to University of Tennessee brochures on tree care, selection, values, and maintenance through grants and participated in community seminars and educational booths at community functions across the state. Urban foresters utilized the Webster Urban Forest Index Form in several local communities to identify fragmented urban forests and Wildland Urban Interface issues.

State funded Tennessee Agricultural Enhancement Program (TAEP) cost sharing for urban plantings was initiated during this review period to facilitate support of community tree plantings, which is critical to increasing citizen understanding of the value of trees and mitigating forest health risks.

TDF increased the level of advertising and conversations about our tree nursery's commitment to grow seedlings tailored for survival and fast growth of Tennessee's landscape.

### 3.4. Maintain and enhance the economic benefits and values of trees and forests

The Tennessee Department of Agriculture established an Agriculture/Forestry Task Force to address forest industry marketing opportunities and initiated a "TN Wood Products" branding initiative. The goal of the TN Wood Products brand is to increase visibility and enhance marketing opportunities for our wood products industry. A primary benefit is to connect consumers to Tennessee producers through the use of the 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.

*Developed regional forest resource analysis profiles to promote business opportunities in Tennessee.*

The division assisted the Hardwood States Export Group Trade Show, promoted the BCAP program, published the Tennessee Forest Products Bulletin, and sent delegates to local

sawmills to promote state forest wood products. During this survey period, we completed 2 rounds of Tennessee Forest Industry Survey to identify the users of forest products produced in Tennessee.

Additionally we developed regional forest resource analysis profiles to support the Department of Economic and Community Development's programs to promote business opportunities in Tennessee. TDF partnered to analyze the impact of closing International Paper's Courtland, Alabama mill on the forest landowners and loggers in the 13 county region affected. A feasibility study was developed to investigate potential sites for a mill in south-central Tennessee to utilize pine sawtimber resources.

TDF professionals acted as liaison between State Tree Farm Committee and SFI Committee to determine the amount of support, especially monetary, for pursuing Tree Farm Certification. We also have a project to educate forest landowners about certification being led by UT Extension Forester David Mercker. Division personnel developed many of the Tree Farm Plans and inspections across the State. The Tree Farm State Committee recently voted to choose the certified Tree Farm option so that all Tree Farms in the State will be third party certified.

### **3.5. Protect, conserve, and enhance wildlife and fish habitat**

During 2014 and then again in 2015 forestry leaders from TDF held two day field trip meeting with NRCS and TWRA biologists to better understand conservation practices from the differing viewpoints and identify opportunities to enhance soil and wildlife conservation practices. These 'Saws and Claws' meetings were a great incubator for cooperative ideas. During the review period the Kentucky-Tennessee SAF hosted a conference on bat habitat and management to understand and conserve the host of species bats represent.

### **3.6. Connect people to trees and forests, and engage them in environmental stewardship activities**

TDF partnered with Nashville metro government and local non-profit organizations to implement a "Clean Water from Urban Forests" project that planted native trees on public and private properties along streams in seven watersheds in Davidson County. This successful project involved 2,800 volunteers, who spent 7,700 hours in planting 28,000 trees on 30,400 feet of buffer. The Tennessee Urban Riparian Buffer Handbook was also created as a guidebook for other municipalities to follow.

*"Play, Plant, Preserve."  
connects people to trees  
and music to engage  
them in environmental  
stewardship.*

One creative connection that was implemented during our review period was the establishment of a 5k Urban Runoff race in association with a Water Quality festival to engage people with environmental benefits of forestry.

“Play, Plant, Preserve.” tree planning cost share program is an initiative aimed at ensuring the hardwood resource used for making drumsticks and mallets in ProMark’s Prospect, TN sawmill is sustainable. The goal of the ProMark funded program is to provide an avenue for planting five trees for every one that ProMark uses on an annual basis. The newly established program connects people to trees and music to engage them in environmental stewardship.



### **3.7. Manage trees and forests to mitigate and adapt to global climate change**

During the review period TDF and partners co-hosted the Central States Forest Soils Workshop at Natchez Trace State Forest and co-hosted two Global Climate Change PLT workshops for educators. Additionally we established and expanded seed production orchards that will produce seed adapted to Tennessee’s climate and geography.

## ***Summary***

Tennessee Forest Action Plan has been an effective tool in giving focus and coordination to forestry activities by the Division and its partners in Tennessee.

The Plan was developed in collaboration with partner organizations that also influenced the development of their own strategic and work plans. Follow up queries have determined that most partner organizations have implemented some strategies in the Plan and many organizations have adopted one or more strategies as a new emphasis in their plans. More importantly, new partnerships have been formed to implement particular strategies.

# Provide a brief summary of implementation challenges discovered over the past five years

The Tennessee Forest Action Plan implementation challenges include a sobering awareness that several of our own staff and those of our partners have never read nor have they used the document. While we struggle to partner and be aware of the central issues and strategies outlined, we tend to manage our programs in silos. Another challenge we have rediscovered is that forest protection is primary to and preparatory for forest management or enhancement. Protecting our forests from threats is the most important job of governmental agencies and partners.

*Protecting our forests from threats is the most important job of governmental agencies and partners.*

At times, vacancies in key positions prohibited work planning and implementation. Forest landowners requesting information exceeds the resources we have available to develop management and harvesting plans. Adequately planning for public events without adequate staff to assist in logistics was an implementation challenge revealed. We have also recognized that existing technology gaps and inadequate information systems slow processes and limit success. Lack of adequate professional development training for personnel to keep abreast of current issues and relevant technology is a challenge.

Additionally we recognize limitations with outreach technology that includes a consistent communication portal that reaches all interested parties effectively.

Water quality training for urban foresters, and landowner acceptance of the importance of well-managed riparian areas are also challenges that we discovered.

# Identify the implementation focus for the next five years

Focus for TDF and many of our Forest Action Plan partners during the next five years generally leans toward increasing technology that helps us understand and manage shifting environmental stresses and developing or expanding sustainable markets that maintain or improve the health of our forest resources and support our forest landowners and the public. We also expect to focus on communication strategies that increase recognition of ecosystem values that forests and/or trees produce. Target audiences for this increased awareness include landowners, lawmakers and urban citizens. One major goal is to improve continual information exchange to both internal and external parties via traditional and social media networks. We recognize that our employees need ongoing training and improved connectivity, in some cases, to meet these challenges.

*Improve continual information exchange to both internal and external parties via traditional and social media networks.*

## ***Internal focus:***

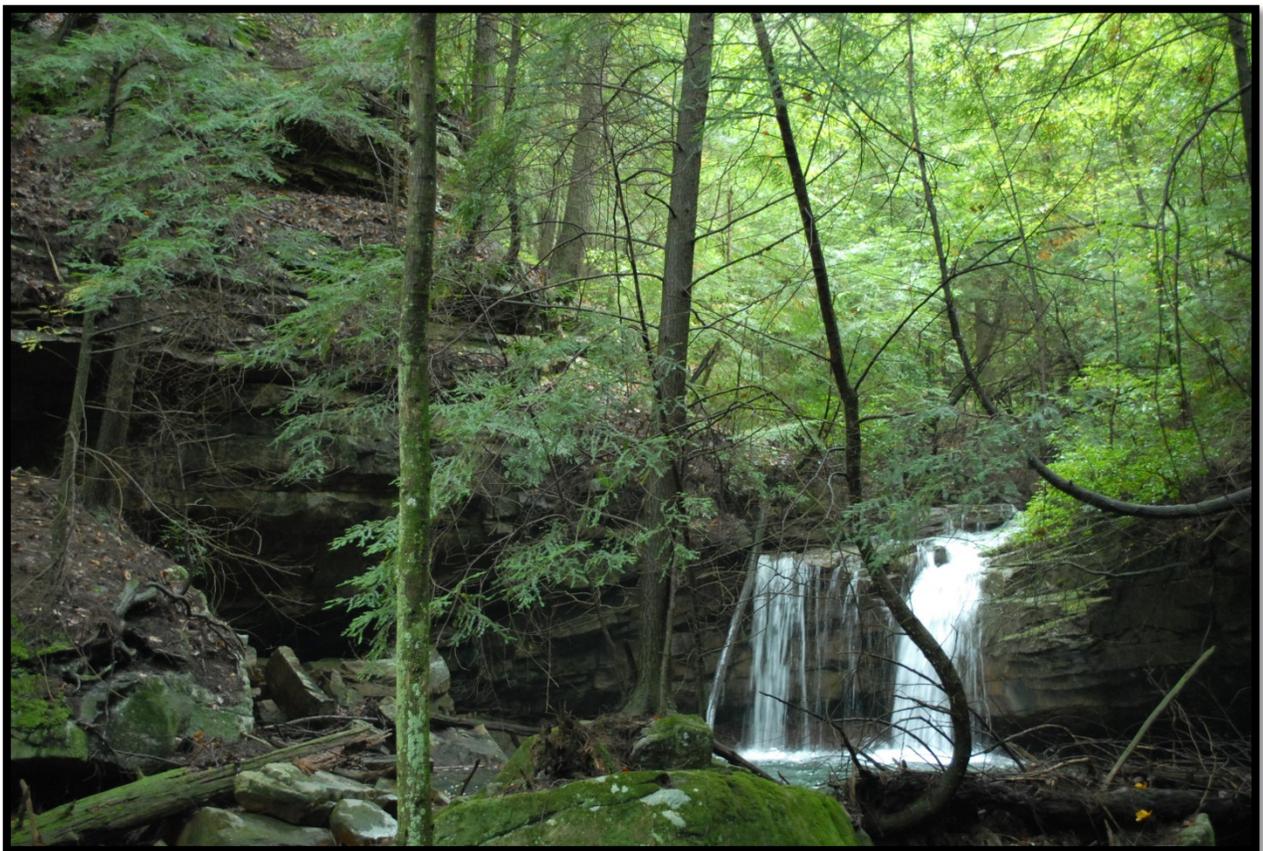
1. Collect, analyze, and distribute more forest inventory and health data to be used in forest industry recruitment, planning and operations
2. Integrate forest health components into all aspects of forestry
3. Continue to treat hemlock woolly adelgid chemically while installing and operating functional predator beetle field (insectaries)??
4. Continue to detect and eradicate the gypsy moth from TN
5. Improve annual training curriculum by incorporating more webinars and self-paced learning opportunities
6. Increase internal technology capacity, knowledge, and skills
7. Develop information to assist landowners make harvesting decisions such as benefits consulting foresters can provide, stand regeneration and online mill location and market information.
8. Ensure that our current levels of program training, and funding are maintained and that program cross-training is increased
9. Expand and/or enhance channels of communication to better connect messages with our multiple targeted audiences.

### ***External focus:***

During the next five years we aspire to nurture a culture of managing forest health issues as collectives or groups and engage more partners including RC & D Councils in forest health initiatives.

Additionally we will focus on continuing to improve BMP compliance so that point source and non-point source pollution is minimized, and public awareness is heightened, thereby perpetuating compliance. We would benefit from informing the public of our accomplishments in water quality, and the impact on drinking water, aquatic habitat, upland and riparian habitat, aesthetics, etc. There is an opportunity to show how all of these things can be enhanced while land resources are managed for many multiple objectives.

More emphasis, energy and funding oriented towards developing new and sustaining current forest products will facilitate 'Keeping working forests as forests'.



# Identify data needs or new issues revealed since the FAP was completed (to inform future updates)

Since drafting the Tennessee Forest Action Plan, both Thousand Cankers Disease and Emerald Ash Borer were discovered in our state. The more we attempt to delimit and communicate the significance of these infestations, the more we are aware of the resources necessary to communicate. Increased amounts and types of data are necessary to effectively communicate appropriate messages to targeted audiences. So as we get more data we need more technology to interpret and communicate appropriate information. We have updated our website, public pest reporting portal, mass communication capabilities and have increased partnerships to address forest health issues. We anticipate forest health issues (the management of harmful insects, diseases and exotic invasives) to spearhead our efforts toward sustainable, quality forests in Tennessee for years to come.

*Forest health issues [will] spearhead our efforts toward sustainable, quality forests in Tennessee for years to come.*

The same data, technology and communication spiral exists for our water quality program as well. We have started to use remote sensing techniques to identify harvest sites for selecting sample plots for the BMP implementation survey. This should yield more accurate and unbiased survey results. The use of remote sensing tools requires more recent, high resolution aerial photography. We also need to develop a better database of all currently active loggers statewide. This will allow better estimates of timber removal volumes than presently provided by FIA data on a county scale

Efficiency for both time and accuracy of data can be improved by having data recorders and proper recording and volumetric software. Data recorders and/ or volumetric software will require training of personnel to use them.

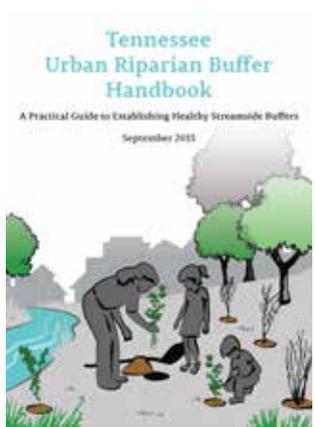
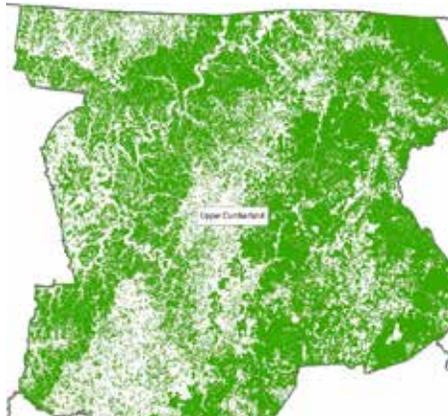
Lidar data will soon be available for the entire State. Combined with extraction of canopy data from aerial photographs, this will allow estimates of timber volumes to be derived for forest landowners.

# Conduct informal “check-in” with stakeholders regarding plan implementation

On September 30, 2015 the State Forest Stewardship Coordinating Committee was convened to review Tennessee Forest Action Plan accomplishments. Conclusions from the meeting included a collective desire to continue this dialogue, an understanding that markets need to be strengthened in order to support healthy forests, and a realization that ‘we need to rethink the way we think’.

Questions the group suggested tackling include:

- What are people thinking when they refer to *forests*?
- What is the external cost impact of losing forestlands?
- What are forest landowners’ primary concerns and understandings?
- What issues are likely to emerge in the next 20-30 years?
- What should be our priorities and options for mitigating invasives?
- What is the level of understanding and support for forest conservation, protection and enhancement by elected officials?



# Tennessee Forestry Commission FY 2015 Annual Report



Department of  
**Agriculture**

Forestry



Wildfire Management



Forest Business Services



Forest Health



Forest Resource Management



Reforestation



State Forest Management



Forest Data & Technology



Communications and Outreach





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**Actions and Activities for FY2015**

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

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

**Members**

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



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

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

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

Robert S. Qualman  
Chairman  
Tennessee Forestry Commission



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

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

Julius Johnson  
Commissioner  
Tennessee Department of Agriculture



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

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

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

TN

## Employee of the Year



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

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

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

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

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

*Rickman continued on page 20*

TN

## Forester of the Year



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

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

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

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

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

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

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

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

*Holder continued on page 20*

TN

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

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

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

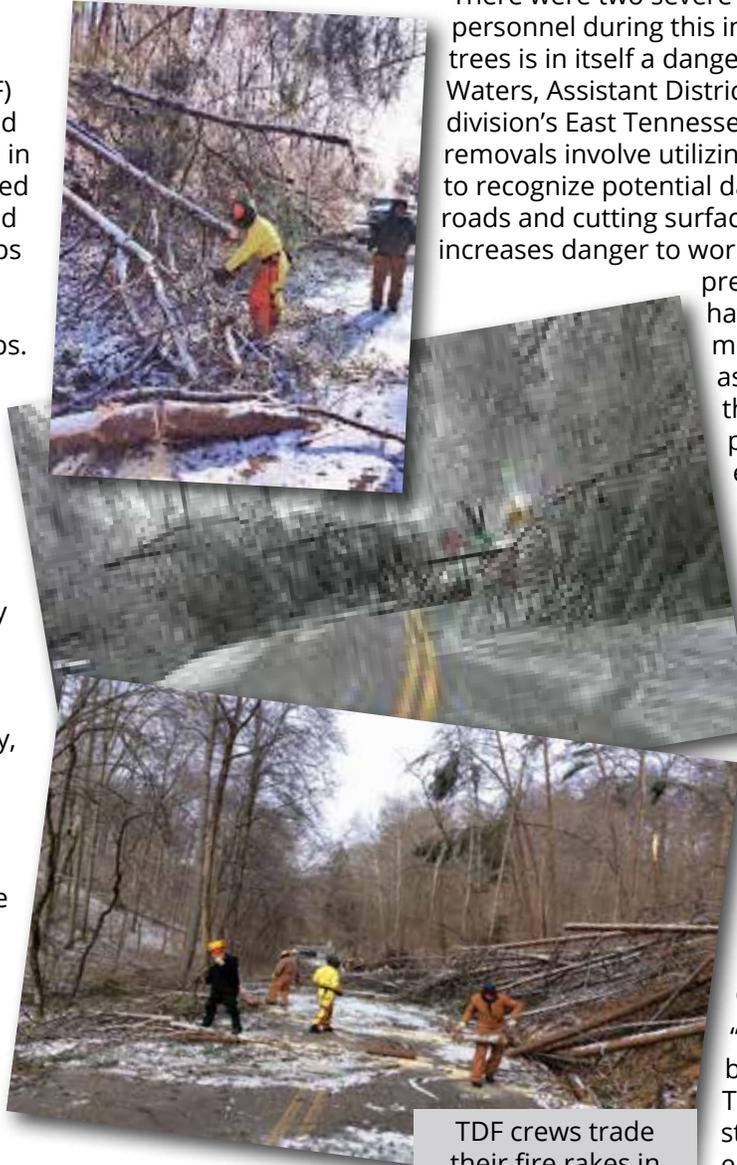
TDF crews have been through extensive training in the use of power saws, and have experience using the equipment on wildfires and work on state forests. However, the nature of this work is still dangerous.

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

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

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

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



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



## Wildland Fire Protection

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

### Objectives for Year

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

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

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

### Unit Mission

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



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



## Wildland Fire Protection

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

### Hazard Mitigation Projects

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

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



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



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



# Forest Business Services

## Economic Development

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

### Objectives for Year

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

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

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

## Unit Mission

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



Upper Cumberland Region Forest Cover



Upper Cumberland Region Forest Industries

## Regional Resource Profiles & Economic Impact Analysis

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



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



## Forest Business Services

### Forest Inventory & Analysis

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

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

#### Objectives for Year

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

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

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



### Water Quality

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

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

#### Objectives for Year

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

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

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

#### Extracting Timber Harvest Sites from Aerial Imagery



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

Pictured are pine plantation thinning operations in Hardin County.



## Forest Health

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

### Objectives for Year

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

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

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

### Unit Mission

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



# Forest Health

## EAB Parasitoid Release

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

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



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

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



Adult EAB parasitoid *Spathius agrilli*



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



## Forest Resource Management - Rural

### Forest Landowner Assistance

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

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

#### Objectives for Year

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

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

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

#### Forest Management Planning

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

#### Forest Stand Prescription Planning

- Wrote 287 prescription plans improving 17,244 acres.

#### Forest Stand Prescriptions Implemented

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

### Unit Mission

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



### Forest Legacy

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

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

#### Objectives for Year

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

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

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



## Forest Resource Management - Urban

### Urban/Community Forest Resource Assistance

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

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

#### Objectives for Year

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

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

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

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



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

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



## Reforestation

### Seedling Nursery

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

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

### Objectives for Year

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

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

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

### Unit Mission

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



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



## Reforestation

### Tree Improvement

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

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

### Objectives for Year

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

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

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



## State Forest Management

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

### Objectives for Year

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

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

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

### Unit Mission

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



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



## Forest Data and Technology

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

### Objectives for Year

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

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

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

### Unit Mission

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



## Radio Communications

### Objectives for Year

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

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

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



## Forestry Communications & Outreach

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

### Objectives for Year

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

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

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

### Clean Water for Urban Forests Program

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

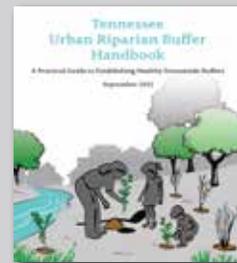
*Clean Water continued on page 19*

### Unit Mission

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

### Tennessee Urban Riparian Buffer Handbook

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



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

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

## Administration

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

### Objectives for Year

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

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

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

### Unit Mission

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

### *Clean Water continued from page 18*

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

***Rickman continued from page 4***

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

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

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

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

***Holder continued from page 4***

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

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

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

***Forestry Commission Duties and Functions***

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

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

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