

TENNESSEE

FORESTRY COMMISSION



2023 ANNUAL REPORT

CONTENT

4	FY2023 AT A GLANCE
6	FEATURE STORY ... Landowner Assistance Program Modernization
8	WILDLAND FIRE PROTECTION
8	... Operations and Training
10	... Volunteer Fire Assistance
10	... Safety and Risk Management
12	... Hazard Mitigation and Prevention
13	... Fleet Management
15	... Radio Communications
16	FOREST HEALTH AND SUSTAINABILITY
17	... Forest Health
19	... Rural Forest Management
20	... Urban and Community Forestry
22	... Forest Legacy
24	... Water Quality
26	REFORESTATION
28	STATE FOREST MANAGEMENT
30	FOREST DATA AND ANALYSIS
32	... Forest Inventory and Analysis
34	COMMUNICATIONS AND OUTREACH
36	ADMINISTRATION



TOM MIDYETT
CHAIR OF FORESTRY COMMISSION

It is my pleasure to introduce the Commission's 2023 Annual Report. Fiscal year 2023 was eventful, and successful, for the Forestry Commission, and for the Tennessee Division of Forestry as well. The Forestry Commission is most appreciative of Governor Lee and the leadership of the General Assembly in improving salary levels of the highly trained men and women who comprise one of the most efficient, and proficient, wildland fire fighting organizations in the country. The Commission also appreciates Governor Bill Lee's Office of Customer Focused Government and the Division of Forestry's proactive effort to canvas forest landowners across the state to determine how the Division of Forestry can be more helpful in advising forest landowners. Just as forestry works for Tennessee, the Tennessee Forestry Commission wants Tennessee to work for forestry!

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

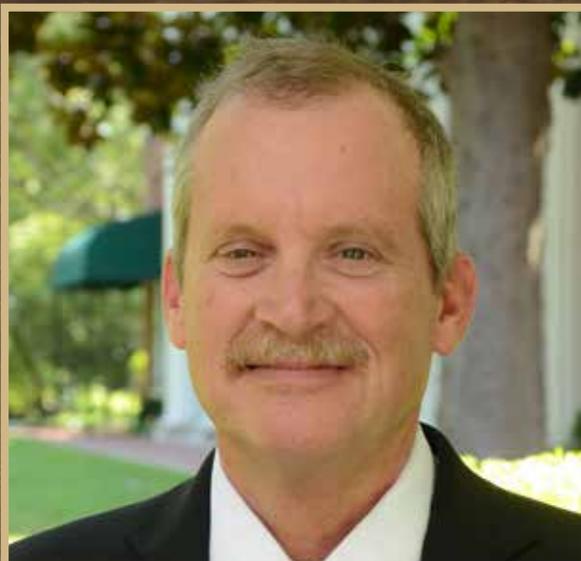
We are so fortunate to live in a thriving state that celebrates achievements in forestry. When forests are well-managed, they are healthy and productive and we all benefit. From the aesthetic appeal of seeing green outside our windows, to the peace that comes from a stroll in the woods, to the associated industries that drive a \$21 billion impact in our economy—our forest resources are vital to us all.

The Tennessee Department of Agriculture Forestry Division is proud to provide stewardship of those resources. There is no question the commitment of our team is strong and our partnership with the Tennessee Forestry Commission helps us achieve lofty goals. I hope you enjoy reading the highlights and accomplishments of the talented men and women who are devoted to this work.



DAVID ARNOLD
STATE FORESTER

Tennessee's forests are predominantly owned by private forest landowners – not forest industry, not the government. Many of you reading this report probably own forestland. To meet our mission of protecting, conserving, and enhancing our state's forests, it is imperative that we work closely with Tennessee's private forest landowners. The feature article of this year's report focuses on developing a strategic plan to help better meet the needs of forest landowners. The Division engaged with the Governor's Office of Customer Focused Government to create this plan, and we are excited to move forward with the strategies and actions to ensure our forests remain productive, healthy, and resilient on the landscape.





FY2023 AT A GLANCE

The Commission met 6 times during Fiscal Year 2023. Each meeting was properly noticed and the Commission received pertinent comments from the public when provided. The Commission at each meeting also received various reports from the State Forester and his staff.

As it does annually, the Commission reviewed seedling production at the Tennessee State Nursery in Delano. The Commission approved staff's recommendation of a modest increase in seedling prices to reflect the increased cost of fertilizer and other production costs.

At its regular meeting in August of 2022 the Commission learned about workforce development activities in the forestry industry. The Commission heard of the collaboration between the Forest Workforce Training Institute and partners within the forest industry called ForestryWorks. The goal of this program is to develop a pipeline of qualified workers to the forest industry. The Commission also had a presentation by the State Chamber of Commerce and Industry of its Be Pro Be Proud initiative to match professionals to Tennessee's skilled workforce, including those in the forestry industry.

The employees who comprise the Tennessee Department of Agriculture Division of Forestry are highly trained men and women who advise and support forest landowners and industries across Tennessee. They effectively manage each of our state's vibrant and productive state forests and protect the water quality of our streams and conserve our natural resources. In early 2023, the Commission recognized what it considered to be an inadequate pay scale for the Division of Forestry's employees and wildland fire fighters. The Commission pointed this inadequacy out to Governor Bill Lee and the leadership of the Agriculture Committees in the General Assembly. The Commission is appreciative of Governor Lee's inclusion of funds in his Supplemental Appropriation bill to correct this inadequacy.

The Commission established a committee to support the Division of Forestry's efforts to canvas forest landowners statewide to determine how the division can better assist them. The Division worked closely with the Governor's Office of Customer Focused Government to develop a strategic plan. Regional scoping sessions were held in each Grand Division. As a result of the feedback received at these sessions, surveys were sent to more than 4,000 forest landowners (both large and small acreages) across the state. The results of this survey are now being implemented, as featured subsequently in this report.



LANDOWNER ASSISTANCE PROGRAM MODERNIZATION

The Tennessee Department of Agriculture Division of Forestry (TDF) has been providing forest management and forest health technical assistance to Tennessee landowners for decades through Landowner Assistance Programs (LAP). TDF engages an average of 20,000 citizens per year, writes forest management plans for an average of 62,000 acres per year, and annually provides over 1,000 personalized “walks in the woods with a forester” to deliver direct customer service. This represents a small percentage of potential forest landowners who could be served as the estimated landowner population in Tennessee is approximately 335,000 individuals owning 66% of forests.

Tennessee landowners, along with TDF, face several challenges with various operational elements of the LAP and with meeting current landowner needs. For this reason, TDF contacted the Governor’s Office of Customer Focused Government (CFG) and requested assistance in forming a five-year strategic plan focused on modernizing the LAP.

Conversations with TDF leadership, industry stakeholders, and experts from peer and model land management states resulted in CFG recognizing several themes, including:

1. A need for a modern system for communicating with TDF customers
2. A lack of training and succession planning for landowners and TDF employees
3. A desire for TDF’s programmatic offerings to be more responsive to landowner needs and wants

Building on these themes, CFG initiated focus groups with Tennessee landowners and administered a survey to over 4,500 landowners, one of the largest state-level surveys of forest landowners ever conducted. CFG then convened a two-day



Key Takeaways: LAP Survey

- When landowners interact with TDF, good things happen.
- But, most landowners never interact with TDF.
- TDF needs to more proactively reach out to and communicate with landowners via email and direct mail.
- Most landowners are not motivated by revenue.
- TDF needs a suite of offerings that are accessible and appealing to a wide variety of landowners.

workshop with TDF leadership and Area Foresters from across the state. The primary focus was to capture feedback from staff directly serving landowners and gain insight on how to strategically provide services and implement modern LAP.

CFG culminated this work in coordination with a TDF leadership team by developing a five-year strategic plan to help TDF modernize the LAP. Five strategic goals were identified with

corresponding objectives and action steps to be implemented over the five-year period. The goals include:

Goal 1: Develop and Implement a Customer Relationship Management (CRM) System

Goal 2: Leverage Data and Analytics to Enhance Operational Efficiency

Goal 3: Improve Internal Training and Succession Planning Processes

Goal 4: Strengthen Communications and Outreach

Goal 5: Modernize Land Management Programs and Services

Based on these goals and their specific objectives and action steps, TDF has a well-established plan moving forward to better meet the needs of Tennessee landowners.

Agri-forestry is the #1 industry in rural Tennessee, and forests make up over half of the state's land base. Tennessee forests support 85,000 jobs and a \$21 billion industry. Modernizing program delivery processes and utilizing technological solutions will result in savings to taxpayers while providing vital forest resource protection, conservation, and enhancement that meet the needs of current and future generations.



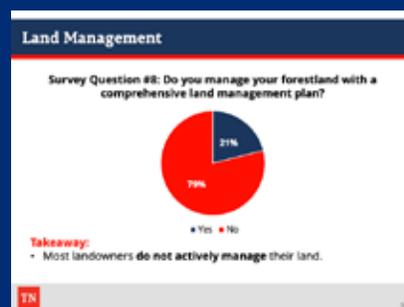
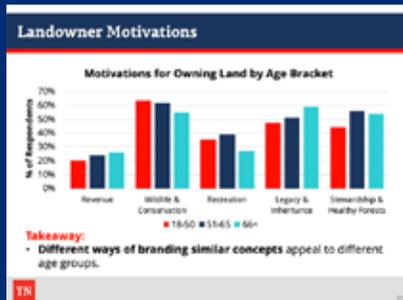
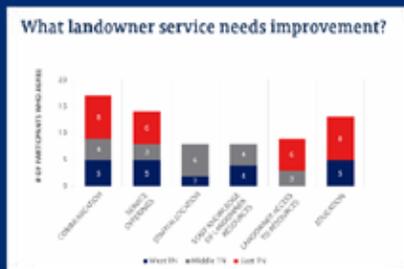
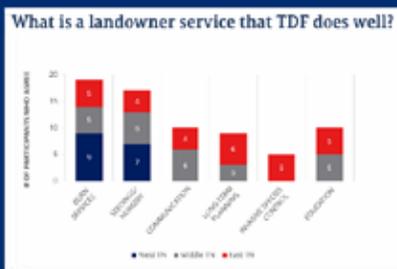
Landowner Survey Quotes:

"Please call and direct us to help ASAP."

"Send me information on program services."

"Self-managed and currently needing help...Please contact us to save our low land trees from dying."

"Thank you for reaching out. We would like to know how best to manage our land for future generations."





WILDLAND FIRE PROTECTION

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

UNIT MISSION

The mission of the Fire Management Unit is to minimize damage caused by wildland fire to forest resources and personal property while giving priority to firefighter and public safety. This is accomplished through cost-effective and creative programs and collaboration, as well as safe and effective fire and fuels management operations.

OPERATIONS AND TRAINING

OBJECTIVES FOR THE YEAR

- Coordinate and execute high-level, nationally-accredited training for wildland fire, all hazard incident management, leadership, and the Incident Command System.
- Build professionalism and proficiency of the Grand Divisions Type 3 Incident Management Team through real world exercises, and commitment of rostered individuals on national team assignments.
- Foster capacity building with partner agencies through interagency classroom training and field exercises.



ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Deployed 121 highly-trained personnel and 55 pieces of equipment to support wildland fire and flood emergencies and disasters across 13 states resulting in transferable skills and experience to be utilized in Tennessee and generating over \$2.5 million in revenue.
- Suppressed 1,098 wildfires affecting 12,266 acres and safely implemented 147 beneficial prescribed fires across 6,739 acres in Tennessee.
- Mobilized the Grand Divisions Type 3 command and general staff to integrate with the annual Southern Area Incident Management Team conference for high-level incident management team development.
- Secured \$1,733,476 in federal grant funding to support state fire assistance surrounding remote automated weather stations, training, supplies, and personal protective equipment.
- Facilitated the 20th Annual Tennessee & Kentucky Wildland Fire Academy providing 49 leadership, casualty assistance, and incident management courses to 521 students and 132 instructors and support staff from 46 states. The academy comprised 25,021 student and instructor hours of coursework.
- Provided two Tennessee Certified Prescribed Burn Manager Workshops for 88 private landowners, forest industry employees, and partner agencies. This brings the number of Certified Burn Managers in Tennessee to 626.
- Executed two full-scale Type 3 Incident Management Team exercises at both the annual Tennessee & Kentucky Wildland Fire Academy and a one-week advanced dozer operator academy at Bledsoe State Forest.

PARTNERSHIP WITH TENNESSEE ARMY NATIONAL GUARD

In May, 38 members of TDF's Wildland Fire Unit and 20 pilots and flight crew members from the Tennessee Army National Guard conducted a 2-day joint training exercise.

As part of a partnership that began in 2022, the Tennessee Army National Guard provides air support for the state's wildfire suppression efforts.

In a series of activities designed to teach the two organizations to communicate clearly and coordinate critical activities, the TDF team learned how to request and direct air support and the Guard gained experience performing water drops using a Bambi bucket system.



VOLUNTEER FIRE ASSISTANCE

OBJECTIVES FOR THE YEAR

- Assist local volunteer fire departments serving populations of fewer than 10,000 citizens in obtaining wildland fire equipment, personal protective equipment, tools and communication supplies, and technical assistance.
- Provide wildland fire training to volunteer fire departments across Tennessee, including incident command system, tactics, leadership, mutual aid, and wildland-urban interface.
- Prioritize and support economically-distressed counties and departments within those areas.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Secured \$292,945 in federal grant funding and awarded \$267,000 in grants to 89 volunteer fire departments.
- Maintained 400 agreements with volunteer fire departments.
- Provided free wildland fire training to 250 firefighters representing 10 fire departments.
- Coordinated with the Tennessee Department of Commerce and Insurance and various media outlets promoting services and opportunities provided through the Volunteer Fire Assistance Program.

SAFETY AND RISK MANAGEMENT

OBJECTIVES FOR THE YEAR

- Provide a structured approach to control safety risks in operations and promote a culture of open dialogue and reporting of accidents and near misses.
- Provide high level of guidance and mitigation strategies commensurate with the tasks and risks associated with all disciplines within the agency.
- Implement and provide oversight to OSHA workplace and employee safety reporting requirements and timelines.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Facilitated defensive driving, hazard communication, first aid/CPR, and bloodborne pathogen training for Division personnel.
- Investigated, reviewed, and reported all job-related injuries, accidents, and illnesses.
- Revised the Division's Safety and Health Manual providing policies and procedures that create a safe work environment for all employees.
- Supported Tennessee Fallen Firefighters Memorial service with committee planning and execution of the annual memorial recognizing structural and Division line-of-duty deaths.





Division staff conducting a prescribed burn in Knox County.



Aerial UAV (drone) footage of prescribed burn in Knox County.

HAZARD MITIGATION AND PREVENTION

OBJECTIVES FOR THE YEAR

- Develop Community Wildfire Protection Plans, expand Tennessee's Fire Adapted Communities network, and increase certified Firewise USA Communities.
- Provide the public with safety information, including updates on current hazard situations and mitigation steps to prevent devastating wildland fire impacts.
- Manage the Division's safe debris burn permit program to limit the risk of a planned fire growing into a wildland fire. The program has resulted in significant decrease in wildland fires year-over-year.
- Pursue new and diverse revenue opportunities and effectively manage growing wildland fire mitigation needs in Tennessee.
- Serve as Tennessee's sponsor for the National Fire Protection Agency's FireWise USA program and the Smokey Bear Wildfire Prevention campaign.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Secured \$450,000 in federal grant funding to implement wildland fire mitigation activities.
- Awarded \$121,000 in hazard mitigation grants to 21 communities for Community Wildfire Protection Plan development, outreach, education, and community mitigation action items.
- Utilized federal funding to contract with multiple hazard mitigation specialists and the Appalachian Rural Conservation District to expand capacity for hazard mitigation assessments and improvements.
- Issued 317,003 safe debris burn permits to residents, agencies, and private companies decreasing wildland fire risk on 67,474 acres.
- Facilitated Tennessee's annual Fire Adapted Communities Workshop and Awards Banquet.



TDF staff deployed to Texas, Oregon, Idaho, Kentucky, and New Mexico to aid firefighting and disaster response efforts.

FLEET MANAGEMENT

OBJECTIVES FOR THE YEAR

- Manage administration, replacement cycles, and maintenance of 742 pieces of equipment and rolling stock owned and operated by the Division.
- Provide sound leadership, technical expertise, and fiscal accountability in fleet management decisions.
- Increase Tennessee's wildland firefighting capacity and capability through implementation of the Federal Excess Property Program and the Firefighter Property Program sponsored through the USDA Forest Service and Department of Defense.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Received 6 Ford F-550 trucks for conversion to Type 6 engines to support fire suppression and prescribed fire operations across the state. Additionally, began receiving the first of an 80 slip-on pumper unit order upgrading initial attack fleet.
- Received 30 new dozers. International truck manufacturing supply chain issues continue to hamper the process.
- Utilized federal funding to contract with an equipment specialist to assist in screening, securing, and managing Federal Excess Property Program supporting local fire departments statewide.



A brand new fleet of dozers, ready for deployment for the 2023-2024 fire season.



Teams use dozers to create a firebreak while responding to a fire in Anderson County.



RADIO COMMUNICATIONS

OBJECTIVES FOR THE YEAR

- Maintain highest level of integrity for current radio communications network.
- Establish interoperability solutions with emergency response partners.
- Plan and budget for upgrade of Quantar repeaters and replacement of statewide signal quality controllers.
- Acquire dedicated repeaters for fire mission support.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Initiated upgrade and replacement of Quantar repeaters and replacement of statewide signal quality controllers.
- Established new air-to-ground frequencies for statewide utilization for wildfire interoperability improvements between ground resources and aircraft.
- Established continuous remote monitoring system on all electrical and generator systems supporting radio repeater sites.



TDF team members collaborated to host the 2023 Sevier County Wildfire Preparedness Expo.



FOREST HEALTH AND SUSTAINABILITY

The health of a forest directly influences all aspects of forestry and is a part of every Unit within the Division. Not limited to insects and diseases, forest health is also influenced by abiotic events, invasive plants, improper silvicultural prescriptions, harvesting damage to residual stand, air and water quality, soil compaction, wildland fire, and much more. Forest health is considered in all settings, whether the forest exists within an urban environment or a riparian strip between two agricultural fields. This focus on forest health provides the Unit with a holistic and sustainable approach to all forest management. It demonstrates the connectivity among forest health, the human interface, and the ecosystem services all forests provide.

UNIT MISSION

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



FOREST HEALTH

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

PROGRAM MISSION

Enhance the health of Tennessee's forests and minimize forest resource losses caused by forest pests through effective prevention, detection, evaluation, suppression, and technical assistance measures.

OBJECTIVES FOR THE YEAR

- Promote forest health through monitoring and management activities, staff trainings, technical assistance, and outreach.
- Partner with the Slow the Spread Foundation to conduct spongy moth (formerly known as "gypsy moth") mating disruption treatment in northeast Tennessee.
- Partner with USDA Animal Plant Health Inspection Service (APHIS) and Slow the Spread Foundation to conduct annual survey of spongy moth by placing and monitoring traps across all 95 counties in Tennessee.
- Monitor for southern pine beetle and other pine bark beetles to evaluate areas at a higher risk and mitigate outbreaks.
- Support research, collect data, and conduct outreach for emerald ash borer, laurel wilt disease, and other invasive forest health threats.
- Promote management of invasive plants through outreach and by providing funding to local government and nonprofit organizations for implementation of invasive plant management projects across the state.
- Provide leadership to the Tennessee Hemlock Conservation Partnership through meeting facilitation, cooperative field days, and outreach.
- Protect significant hemlock forests from extinction through continued operation of the Hemlock Woolly Adelgid (HWA) Strike Team.
- Increase prescribed fire statewide with the Prescribed Fire Strike Team.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Recorded 603 forest health observations submitted statewide by Division personnel on ESRI's Survey123 platform. Observations included widespread abiotic injury (particularly damage from freezes and tornadoes), oak decline (various causal agents), invasive plants, and a variety of native and non-native pests.
- Monitored spongy moth activity via placement of 5,200 traps, capturing 50 male moths in 8 counties at the time of this report. The most moths were found within the Slow the Spread Action Area in northeast Tennessee, which is closest to the current range of spongy moth.

- Deployed southern pine beetle (SPB) traps to assess the number of SPB and clerid beetles present in four counties. Low catch numbers at all sites indicated that these areas were at low risk of experiencing SPB outbreaks in 2023.
- Deployed Early Detection Rapid Response (EDRR) traps to assess possible introductions of new invasive insects as part of the USFS's EDRR protocol. Tennessee conducts this survey every 7-10 years. Initial results indicate no new introductions of non-native forest pests at the sites sampled.
- Deployed emerald ash borer (EAB) traps to assess the distribution of this beetle in counties not yet confirmed to have EAB. EAB was detected in three new counties in 2023. Since the first detection in 2010, EAB has now spread to 68 counties in Tennessee.
- Completed road and ground surveys for the presence of laurel wilt disease, detecting the disease in two additional counties. Surveys will continue into the fall. This disease has spread to 22 counties in Tennessee since its first detection in 2019.
- Held several forest health training events for Division personnel, partner agencies, and private landowners. Forest Health training was also provided at several of the Tennessee Master Logger classes across the state.
- Provided funding for five, multi-year, invasive plant control projects to support invasive plant removal and native seedling replanting. Total funding is \$79,600, with \$37,400 provided by federal sources and \$42,200 provided as match from participating organizations. This includes project areas at Donaldson Park in Celina, Jacob's Nature Park in Johnson City, Lytle Creek in Murfreesboro, Reflection Riding Arboretum and Nature Center in Chattanooga, and Overton Park in Memphis. Invasive plants will be managed on approximately 32 acres and 1.2 miles of riparian habitat in total.
- Received 2023 Governor's Environmental Stewardship Award for the Pursuit of Excellence to Department of Agriculture, Division of Forestry, HWA Strike Team.
- Treated more than 16,200 trees on more than 1,800 acres throughout 17 Hemlock Conservation Areas.
- Attended the National HWA Manager's meeting in Virginia.
- Supported the Lindsay Young Beneficial Insects Laboratory in identifying new release sites, releasing more than 2,000 *Laricobius osakensis* beetles, finding food for beetles, and assisting in the lab.
- Assisted with burning 2,500 acres across the Cumberland Plateau utilizing the Prescribed Fire Strike Team while also assisting with fire suppression and western wildland fire assignments.



The spongy moth is currently in northeast Tennessee.

TDF partners with the USDA Forest Service's National Slow the Spread (STS) campaign to minimize the moth's spread into uninfested areas.

TDF conducted a targeted treatment via airplanes in Johnson County this year, contributing to the national campaign hitting the milestone of treating 10 million acres nationwide.

RURAL FOREST MANAGEMENT

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

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

PROGRAM MISSION

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

OBJECTIVES FOR THE YEAR

- Provide professional development and continuing education opportunities for Division foresters.
- Develop landscape management plan for Tennessee.
- Advance implementation of the ArcGIS Pro landowner assistance mapping, geospatial database, and performance tracking suite of tools.
- Provide excellent customer service to Tennessee's forest landowners.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Completed the Landowner Assistance Program's Modernization 5-year strategic plan with the guidance from the Governor's Office of Customer Focus Government (see feature article).
- Received Landscape Management Plan (LMP) for Tennessee from contractor for final review. This project will reduce the burden of individual management plan development, allow foresters to spend more time with landowners on the ground, and contribute to accomplishing landscape-level goals.
- Continued to improve the implementation the ArcGIS Pro landowner assistance mapping, geospatial database, and performance tracking suite of tools specifically designed for landowner assistance.
- Assisted 10,836 forest landowners and educated 54,769 Tennesseans through direct outreach programs.
- Wrote 16 Forest Stewardship plans addressing 1,626 acres, 182 other forest management plans addressing 16,491 acres, and 247 prescription plans improving 14,667 acres.
- Passed a USDA Forest Service program review.
- Provided services 18 times for public and 100 times for private landowners through the vendor service program impacting 5,024 acres. This included services for standby, firebreak construction, tree planting, and timber marking, as well as prescribed burns on 1,070 acres of public land and 3,921 acres of private land.
- Funded 62 cost share applications totaling \$257,160 to complete forest management practices. Total project cost generated with cost share applications and match was \$616,648.



URBAN & COMMUNITY FORESTRY

Urban and Community Forestry (UCF) Programs support the development and sustainability of healthy urban and community forests by providing technical, financial, and educational assistance and developing partnerships with diverse stakeholders throughout the state.

PROGRAM MISSION

Improve environments, infrastructure, and public health outcomes for all Tennessee communities through proper planning, planting, management, and utilization of healthy urban and community forests.

OBJECTIVES FOR THE YEAR

- Increase awareness of the benefits of trees' ecosystem services to support healthy urban and community forests.
- Increase awareness of the importance and components of full circle management in urban and community forestry.
- Collaborate with the Tennessee Emergency Management Agency and Department of Environment and Conservation to help communities prepare, respond, and recover from natural disasters impacting urban and community forests. Increase number of communities classified as "Developing" or "Managing" as defined by USDA Forest Service Urban and Community Forestry Program.
- Increase number of community outreach and education engagements and audience diversity.
- Increase diversity of recipients receiving financial assistance to complete urban and community forestry projects.
- Provide urban forest information and training to TDF employees.
- Promote urban and community wood utilization practices through education and community outreach.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Administered Tennessee Agricultural Enhancement Program tree planting grants for 19 municipalities and non-profit organizations resulting in 1,718 trees planted for a total investment of \$256,720.

- Awarded \$4.125 million in Inflation Reduction Act funding to develop a new grant program to support of UCF projects in disadvantaged communities.
- Provided technical assistance to 45 Tree Cities, 17 Tree Lines, and 8 Tree Campus Higher Education USA members. Tennessee has two “Tree City of the World” cities - Germantown and Knoxville.
- Hosted a regional Urban Forest Strike Team (UFST) training in Nashville with 35 participants from 9 states. UFSTs aid regions or communities whose urban forest has been impacted by a natural disaster. UFSTs provide tree damage and risk assessments, as well as Federal Emergency Management Agency (FEMA) public assistance information to communities.
- Planned and hosted workshops in East and Middle Tennessee on developing urban and community forest management plans.
- Partnered with Tennessee Urban Forestry Council to host the annual urban and community forestry conference in November 2022 at Montgomery Bell State Park. The conference included the Awards of Excellence and Tennessee Champion Tree Banquet.
- Partnered with the UT Extension Residential and Community Forestry Workgroup to host 11 free webinars on diverse topics related to urban and community forestry.
- Planned and hosted the Readiness, Response, Recovery: Managing Urban Forests for Disasters workshop to assist communities in preparing for natural disasters and familiarize them with the newly-developed resource.
- Awarded extra funding for FY 23-25 from the USDA Forest Service to assist communities in removing and replacing trees damaged by the emerald ash borer.
- Awarded funding with Texas, Oklahoma, and Virginia to collaborate to increase urban and community wood utilization in each state and across the southeast.
- Developed and distributed an urban wood utilization knowledge and interest survey, shared throughout the southeast through the Southern Group of State Foresters U&CF Committee.
- Collaborated with the USDA Forest Service and Urban Wood Economy to plan for the 2023 Urban Wood Academy in Memphis.

TENNESSEE URBAN & COMMUNITY FORESTRY BY THE NUMBERS

Tennessee consistently receives outstanding rankings from the Arbor Day Foundation for its urban and community forests.

In 2022, we provided technical support to 45 Tree Cities, 17 Tree Lines, and 8 Tree Campus Higher Education USA members in our state.

We are proud of have two “Tree City of the World” cities in our state-- Germantown and Knoxville.



- Completed an in-person training on urban and community forestry and our state's UCF programs with TDF employees in all four districts.
- Partnered with the Forest Health Program to host Weed Wrangle events at Ellington Agricultural Center to educate the public on invasive plants and provide opportunities for volunteer experience in invasive plant management. Volunteers contributed approximately 91 hours in FY 23.
- Provided financial support to several programs including Tennessee Champion Tree Program, Community Riparian Restoration Program, and the 2023 Tennessee Tree Day.
- Delivered presentations on various aspects of urban and community forestry at multiple events and meetings including the Moretreesboro Climate Summit in Murfreesboro and the annual seed swap in Johnson City.
- Continued building partnerships with diverse UCF stakeholders throughout the state and region including the Tennessee Emergency Management Agency, Tennessee Department of Environment and Conservation, International Society of Arboriculture Southern Chapter, Tennessee Arborists Association, and numerous non-profits.

FOREST LEGACY

This USDA Forest Service Program, authorized by the Farm Bill and facilitated by the Division, works to identify, permanently protect, and maintain well-managed, working forests on the landscape.

PROGRAM MISSION

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

OBJECTIVES FOR THE YEAR

- Monitor all Forest Legacy conservation easement tracts.
- Facilitate the completion of the Myers Cove Conservation Easement acquisition.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Participated in remote sensing monitoring pilot.
- Served as the carbon subject matter expert for Forest Legacy Coordinator group.
- Contracted with professional Forest Legacy coordinator to inject efficiencies into the program.
- Passed a USDA Forest Service program review.





The 2022-2023 Hemlock Woolly Adelgid (HWA) Strike Team.

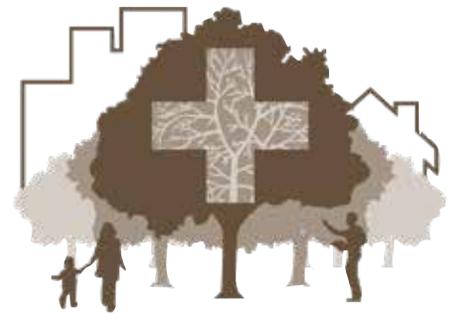
WATER QUALITY

Water is a valuable forest product. The benefits of water are difficult to measure, but changes in quality and quantity are easily observed. Forests act as buffers and filters to reduce damage to waterways caused by practices from other land uses such as urban runoff and protect stream banks from erosion caused by flooding. Since the mid-1980s, the Division has provided leadership to ensure timber harvesting operations do not pollute our streams and rivers. Encouraging implementation of Forestry Best Management Practices (BMPs) is the foundation of the Division's water quality program. We assist the forestry community with BMP implementation through three major program areas: technical assistance, water quality complaint investigations, and BMP implementation monitoring.

Best Management Practices are integral to keeping Tennessee's forests healthy and preserving our water quality. Division professionals provide technical assistance and training to loggers and landowners and visit logging sites to ensure BMPs are used.

UNIT MISSION

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



OBJECTIVES FOR THE YEAR

- Maintain focus on water as a valuable product of the forest.
- Maintain focus on Best Management Practices (BMPs) which are integral to keeping Tennessee's forests healthy and conserving our water quality.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Completed 39 logging site complaint checks, of which 18 had violations. The most common complaints related to stream-side management zone (SMZ) problems (10 complaints), stream crossings (7), landings (8), and skid trail issues (8). Issues with three SMZs, one stream crossing, one landing, and one skid trail were resolved.



URBAN FOREST STRIKE TEAM



Trees are a valuable part of urban and community infrastructure. Tennessee's trees are often severely damaged by weather events and natural disasters, including flooding, tornadoes, ice, and high winds.

That is why planning to preserve the urban and community forest ahead of time and having a response plan in place is critical.

TDF's Urban & Community Forestry team is directly involved in creating, coordinating, developing, and training a new Urban Forest Strike Team to respond to natural disasters and weather events.

The team is also engaged in establishing the Readiness, Response & Recovery Storm Preparedness for Communities program to equip communities to protect trees before disasters strike.

- Completed 744 logging site courtesy checks. On those visits, 10 had issues were present 3 SMZ issues, 1 stream crossing issue, 1 rutting issue, 2 erosion issues and 2 skid trail issues. All of these issues were resolved.
- Provided pre-harvest planning assistance to forest industry five times, including advice on stream crossings, as well as the creation and reuse of log roads.
- Assisted forest industry with BMP implementation through technical assistance, water quality complaint investigations, and BMP implementation monitoring.
- Observed over 98% compliance rate for BMPs on harvesting operations.
- Partnered with the Tennessee Forestry Association (TFA) to provide training and technical assistance to more than 3,000 foresters, loggers, and landowners since the start of the program.
- Partnered with TFA to provide funding to loggers for safety equipment and PPE, such as flagging and lights for the back of loaded trailers and trucks, new DOT regulation gas cans, truck camera systems, etc.
- Supported University of Tennessee Institute of Agriculture's Community Riparian Restoration Program (CRRP) for Tennessee to promote community involvement in riparian restoration.



REFORESTATION

The Division of Forestry's seedling nursery in Delano produces tree 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 soil.

UNIT MISSION

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

OBJECTIVES FOR THE YEAR

- Build partnerships to plan for high quality diverse native species of bareroot seedlings for customers' reforestation needs now and into the future.



ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Developed a partnership with American Forest and UT Tree Improvement Program to focus on the development of a Wild Seed Network to help ensure future seed availability for the Division's reforestation efforts.
- Moved the restoration project of the drainage hydrology at the East Tennessee Nursery from the development phase into the permitting phase.
- Addressed customer concerns and improved customer interactions with the seedling ordering system.
- Purchased a five-row sprayer to ensure the Nursery uses chemicals and fertilizers in an efficient and effective manner by eliminating treatment areas between planted rows.



The team that manages the East Tennessee Nursery in Delano.



STATE FOREST MANAGEMENT

Tennessee's 15 State Forests total 166,459 acres and range from mountain coves in the East to bottomlands along the Mississippi River. State Forests are managed for a mix of natural resources including game and non-game wildlife, and high-quality timber. State Forests do not feature inns, golf courses, or restrooms. However, they offer hunting, hiking, bird watching, and tranquility.

Many State Forest lands were in poor condition when acquired, either eroded or unsustainably harvested. Some were planted with trees to control erosion; others regenerated naturally into hardwood forest. Following decades of restoration, conservation, and careful management, Tennessee's State Forest system now contains an abundant supply of high-quality timber and other forest products.

Timber harvested from some of these forests helps support local forest products industries. Money spent by consumers in the pursuit of recreational opportunities on the forests supports local merchants. State Forests are sites for field demonstrations of sustainable forestry activities and best management practices to maintain, protect, and enhance water quality. State Forests also provide data to characterize the resources and values provided to local communities and local economies.



UNIT MISSION

Provide for the multiple-use management of all resources on State Forest lands so that those resources are protected and utilized to best meet the long-term needs of the citizens of Tennessee.

OBJECTIVES FOR THE YEAR

- Manage \$3.2 million in expected revenue collections to maintain health and sustainability objectives across the State Forest system.
- Complete Sustainable Forestry Initiative 3rd party annual audit.
- Modernize the State Forest Compartment planning process.
- Support forest industry and private landowner education through workshops and field tours.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Harvested over \$1.8 million in planned timber sales and over \$1.6 million in salvage operations.
- Completed third year of Sustainable Forestry Initiative certification with third-party audit on John Tully, Chickasaw, and Stewart State Forests. All 15 State Forests have now received a site visit from the third-party auditor.
- Finalized new compartment planning process and trained State Forest staff. Created new plan templates, maps, and associated documents to create efficiencies and streamline compartment planning process. Trainings in each District were held with state forest personnel to review the new compartment planning process.

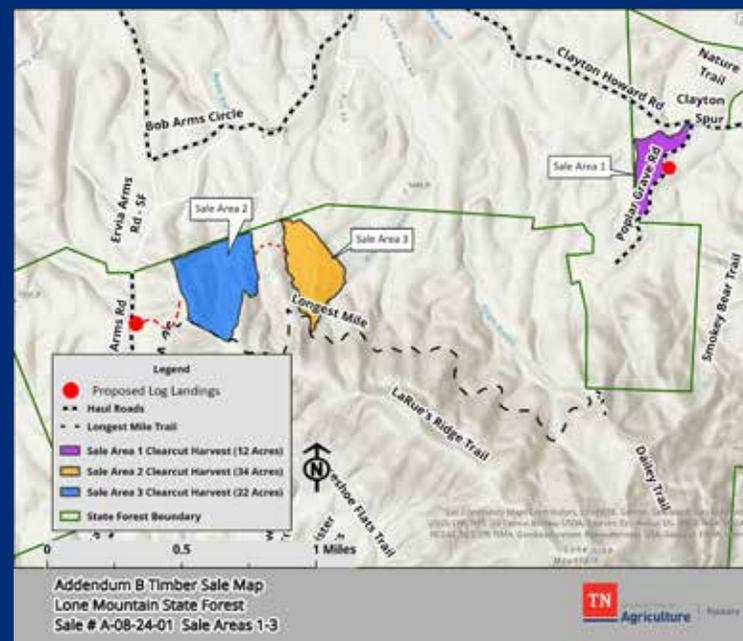
LONE MOUNTAIN & CATOOSA WMA FOREST RESTORATION

TDF partnered with the Tennessee Wildlife Resources Agency, the Kentucky Division of Forestry, and the Ruffed Grouse Society to execute a forest restoration initiative designed to improve habitat for ruffed grouse and associated species on neighboring public lands.

TDF's portion of the project involved implementing strategies for wildlife management at Lone Mountain State Forest, which previously had minimal wildlife management emphasis.

Ruffed grouse prefer habitats composed of young trees from the seedling stage to 15 years of age.

To cultivate that habitat, TDF crews conducted prescribed burns, expanded invasive species control, and planned the first timber sale at Lone Mountain, pursuing methods of creating greater stand age diversification.





FOREST DATA AND ANALYSIS

The Forest Data and Analysis Unit manages Division of Forestry data resources, provides visualization and analytical services, interprets data, and communicates findings to internal and external audiences. Critical work areas include statewide forest inventory, integrated database management, analytics and mapping, and remote-sensing technology.

The Unit tracks availability and sustainability of forest resources and provides this information to landowners, forest industry, other state agencies, external partners, and the public. Furthermore, the Unit facilitates the evaluation and implementation of pertinent technologies for efficient data collection and management, mapping, and distribution to field staff.

UNIT MISSION

Collect, manage, visualize, analyze, and communicate data to address forest resource availability and sustainability; support Division of Forestry operations; and enhance business intelligence. The Unit facilitates the development and utilization of data standards and systems, administers the Division's Forest Inventory and Analysis (FIA), Geographic Information Systems (GIS), and Unmanned Aircraft Systems (UAS) programs, and supports other Units and TDA's Business Development Division.



OBJECTIVES FOR THE YEAR

- Modernize the State Forest data system.
- Establish first field staff cadre of GIS trainees to improve agency GIS knowledge base and proficiency.
- Support landowner assistance, forest health, and emergency operations with UAS.
- Support the Division's and Tennessee Forestry Association's workforce development initiatives.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Modernized the State Forest data system by creating a new spatially-defined geodatabase for each State Forest.
- Completed basic ArcGIS Online and ArcGIS field apps training for more than 20 forestry technicians and aides.
- Recruited two certified UAS pilots and two trainees.
- Completed 63 UAS missions supporting landowner assistance, forest health, emergency operations, and public education.
- Developed a web app to showcase the success of Tennessee ForestryWorks.

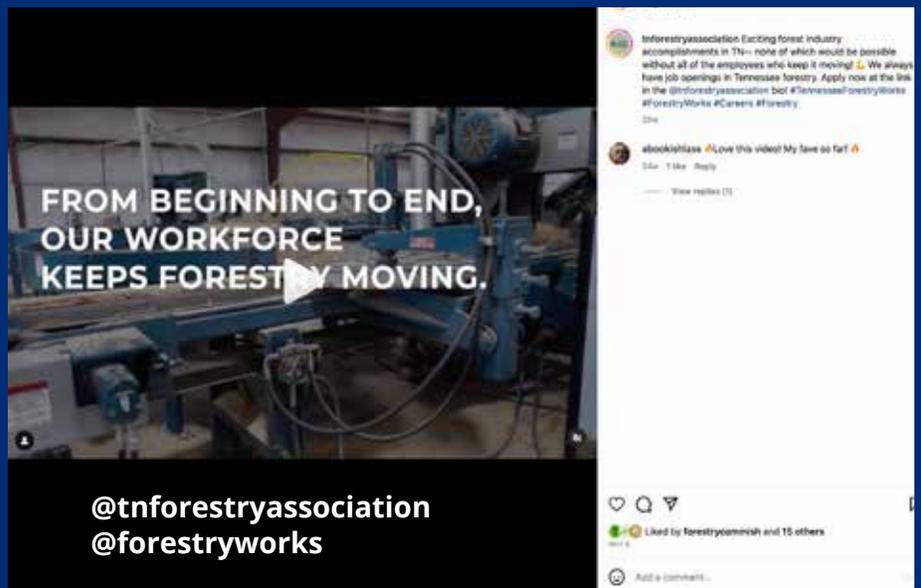
TENNESSEE FORESTRYWORKS

TTDF and the Tennessee Forestry Association (TFA) have partnered to bring ForestryWorks to the state. This premier workforce development program uses training, education, and career promotion initiatives to develop a pipeline of qualified workers for forestry jobs in Tennessee.

With an expanding forestry industry and an aging workforce, demand for employees continues to grow.

Part of this collaborative effort includes coordination with the Tennessee Board of Regents and Tennessee Department of Agriculture to expand forestry-focused academic programs and classes at technical and community colleges, and to develop additional certificate, training, and apprenticeship programs.

By spring 2023, 19 colleges expressed interest in creating new forestry programs.





FOREST INVENTORY AND ANALYSIS

Forest Inventory and Analysis (FIA) is a continuous census of forest resource condition and health, productivity, and sustainability that dates back to the late 1940s. Tennessee's FIA foresters complete detailed forest inventory measurements on more than 4,200 permanent plots on public and private lands on a 7-year cycle. The FIA Program also conducts felled tree studies and timber product output surveys, gathering information from loggers and facilities in the state that utilize wood produced by forests. The FIA Program provides information on forest age dynamics, forest health, ownership patterns, socioeconomic benefits of forests, and emerging market opportunities. The multi-resource information gathered by FIA is used to formulate sound forest policies, provide information for economic development, develop forest programs, and provide a scientific basis to monitor forest ecosystems.

PROGRAM MISSION

Monitor the condition, productivity, and sustainability of Tennessee's forest resource to formulate policies, support economic development, and develop programs.

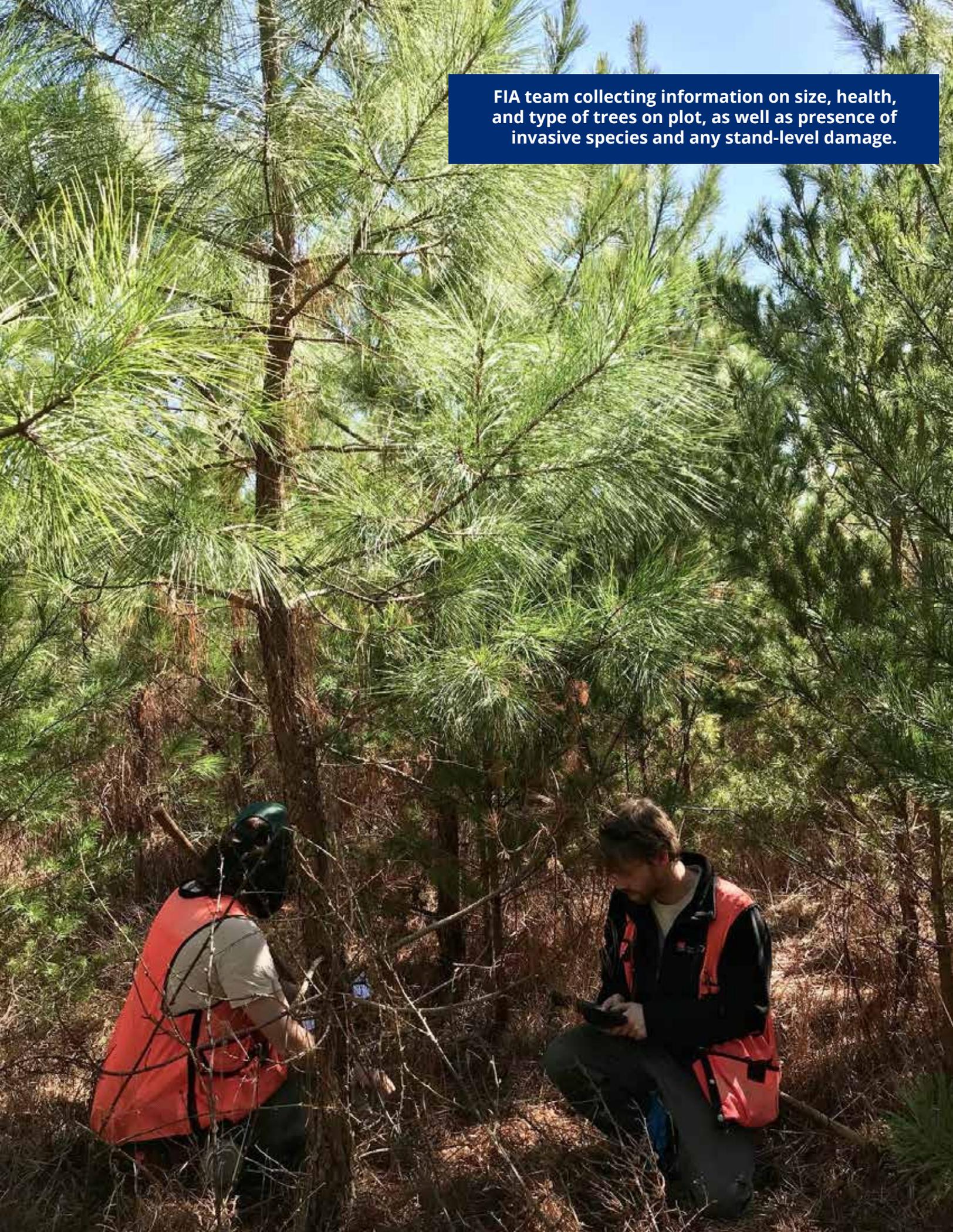
OBJECTIVES FOR THE YEAR

- Complete measurements for Inventory Year 2020.
- Begin measuring Inventory Year 2021.
- Use supplemental federal funding to temporarily increase staffing.
- Complete the Timber Products Output survey of Tennessee's primary mills.



ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Completed measurements on 426 plots and 17 National Forest intensification plots resulting in a productivity increase of 29% over FY22.
- Hired two additional inventory foresters for a two-year period using supplemental federal funds.
- Administered the Timber Products Output survey with a response rate of 61%.

A photograph of two researchers in a pine forest. One researcher is kneeling on the left, wearing a green helmet and an orange safety vest, looking at a device. The other researcher is kneeling on the right, wearing a black jacket and an orange safety vest, also looking at a device. They are surrounded by tall pine trees and a forest floor covered in dry pine needles and branches. A blue text box is overlaid in the top right corner.

FIA team collecting information on size, health, and type of trees on plot, as well as presence of invasive species and any stand-level damage.

Students at the 72nd annual Forestry Camp learning about forest health and prescribed fire.



COMMUNICATIONS AND OUTREACH

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

UNIT MISSION

Communicate clearly and accurately to Tennessee's citizens the information necessary to accomplish the Division's mission and to optimize in-house communications.

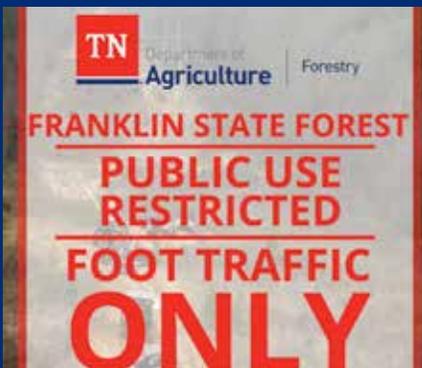


OBJECTIVES FOR THE YEAR

- Support development of the Division's landowner assistance program strategic plan that identifies the mission, vision, values, priorities, and strategies for branding and marketing.
- Increase capacity of unit by hiring content media manager to focus on social media and publication management.
- Develop and execute State Forest promotion plan.

ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Held 1,813 educational outreach events reaching 74,567 children and adults statewide.
- Assisted Customer Focused Government team with coordinating landowner objective listening sessions and survey, internal team facilitation, and strategic plan development.
- Created contract position and hired content media manager to assist with implementation of the Division's strategic communications plan..
- Executed communications plans for State Forest management issues at Lone Mountain (LMSF) and Franklin (FSF) State Forests. LMSF plan related to planned harvesting activity and FSF plan related to temporary motorized vehicle use restrictions.
- Administered a contract with the Tennessee Forestry Association to fund a Conservation Education Coordinator who managed the Project Learning Tree program, conducted Teacher Conservation Workshops, and trained facilitators.
- Facilitated the 72nd annual Tennessee Forestry Camp for 60 FFA high school students.
- Produced 11 news releases pertaining to relevant topics including forest pests, wildland fire danger, burn permit requirements, capital improvements, tree planting, urban forestry, cost share opportunities, and timber theft.
- Gave multiple radio and television interviews addressing Division programs and topical issues.
- Promoted Division services and outreach campaigns across multiple media outlets. This included advertising campaigns for wildland fire prevention, prescribed fire, landowner assistance, forest health, Tennessee Wood Products, and East Tennessee Nursery tree seedlings.
- Grew reach of social media profiles for *Protect TN Forests* conservation campaign including Facebook (256 new likes and 66,783 reach), and Instagram (27 new followers and 2,531 reach) to connect with a broad audience and promote conservation education and Division activity in forest management.



Facebook posts announcing a 120-day temporary use restriction to foot-traffic only at Franklin State Forest resulted in above average public engagement:

*Reach: 22,960
Comments: 359
Shares: 278*



ADMINISTRATION

Spread across the state and administered from 4 district offices and one reforestation office, the 404 employees (317 full time, 87 seasonal) of the Department of Agriculture Forestry Division have responsibilities in 9 separate programs. Effective planning, priority setting, and communication within the Division are crucial to organizational effectiveness. Assistant State Foresters work with staff to refine systems that improve customer services and operational efficiencies.

UNIT MISSION

Increase the effectiveness of management, the quality of customer services, the efficiency of operations, and the cost effectiveness of Division programs.

OBJECTIVES FOR THE YEAR

- Manage personnel and facilities effectively.
- Provide administrative support to Division-wide projects.
- Manage budgets for Operations and Facilities Maintenance.
- Procure and manage federal grants.



ACCOMPLISHMENTS FOR JULY 1, 2022 – JUNE 30, 2023

- Utilized \$3.2M in additional state appropriations to purchase much needed uniforms, tools, personal protective equipment, signage, and other equipment.
- Received additional funding in federal grants made available through the Bipartisan Infrastructure Law and the Inflation Reduction Act.
- Hired a Procurement Officer and employed a recent Division retiree for a 120-day assignment to manage deferred facility maintenance projects totaling more than \$6 million.
- Successfully completed 37 facilities maintenance projects statewide totaling \$407,600 in investments to workplace safety and health.
- Contracted with a third-party consulting firm to assess more than 300 buildings to create a baseline for facility maintenance and to further develop a strategic real property plan.
- Began work on three Capital Maintenance projects totaling \$1.6M investment and three Capital Improvement projects totaling \$12.8M investment.
- Continued to partner with the Tennessee Forestry Association to execute the highly successful Forestry Workforce Development program and develop forestry curriculums for technical and high schools.
- Partnered with TCAT Dickson to train and certify 10 employees in a Special Industry Welding Curriculum.
- Managed an average of 11% vacancy rate in full-time staff.



In 2023, 10 employees from the Highland Rim District earned welding certifications through a partnership with TCAT Dickson, using an industry-specific welding curriculum. The goal was to equip foresters to make equipment repairs in the field and better respond to emergencies.

This was part of an ongoing initiative to facilitate workforce development and professional growth within the Division of Forestry.



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. Provide an annual report to the Governor; Commissioner of Agriculture, the Senate Energy, Agriculture, and Natural Resources Committee, and the House Agriculture and Natural Resources Committee.
4. Recommend to the General Assembly legislation to protect, conserve, and develop the forest resources of the state.
5. Approve the Division's comprehensive strategic plan for the state's forest resources.
6. Establish state forestry policies that will enable the Division to manage its programs.
7. Include in budget recommendations those goals and objectives necessary to implement state forestry policies.

THE STATE OF TENNESSEE POLICY OF NON-DISCRIMINATION

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

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MEMBERS

Chair Tom Midyett | Knoxville | Represents pulp and paper manufacturers

Vice-Chair John Charles Wilson | Collinwood | Represents conservation organizations

Secretary Sharon Jean-Philippe | Knoxville | Represents public at large

Bill Legg | Westpoint | Represents owners of fewer than 500 acres

Drew Getty | Winchester | Represents hardwood industry

Alex Richman | Lynchburg | Represents owners of greater than 500 acres

Mike Witt | Cookeville | Represents owners of fewer than 500 acres

Ex-Officio Charlie Hatcher, D.V.M. | Commissioner - Tennessee Department of Agriculture

Ex-Officio Jason Maxedon | Director - Tennessee Wildlife Resources Agency

Ex-Officio David Salyers | Commissioner - Tennessee Department of Environment and Conservation





Department of
Agriculture

Forestry



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