Investment in State's Cooperative Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2023 Estimate</th>
</tr>
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<tbody>
<tr>
<td>Community Forestry and Open Space</td>
<td>$0</td>
</tr>
<tr>
<td>Cooperative Lands - Forest Health Management</td>
<td>$751,945</td>
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<tr>
<td>Forest Legacy</td>
<td>$123,000</td>
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<tr>
<td>Forest Stewardship</td>
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<tr>
<td>Landscape Scale Restoration</td>
<td>$160,425</td>
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<td>State Fire Assistance</td>
<td>$1,270,891</td>
</tr>
<tr>
<td>Urban and Community Forestry</td>
<td>$1,086,056</td>
</tr>
<tr>
<td>Volunteer Fire Assistance</td>
<td>$295,859</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,861,971</strong></td>
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NOTE: This funding is for all entities within the state, not just the State Forester's office.

The Tennessee Department of Agriculture-Division of Forestry's priorities are set forth in the Department's 4-year strategic plan and 2020-2030 Forest Action Plan. The 4-year strategic plan goals include:
- Improve Emergency Preparedness and Safety
- Increase Education and Outreach
- Foster Comprehensive Land Management
- Strengthen Internal Operations
- Develop a Workforce to Meet the Needs of the Department of Agriculture
- Develop a Workforce to Meet the Needs of the Agriculture and Forest Industries

The 2020-2030 Forest Action Plan focuses on programmatic priorities and aligns program development and implementation on the following objectives:
- Enhancing forest health and resiliency
- Expanding market diversification
- Maintaining and improving connected landscapes
- Strengthening wildfire resilient communities

The Division has been quite successful in pursuing the goals and objectives of these strategic planning documents. Examples include complete overhaul of business practices associated with Forest Protection and Forest Management; and initiation of a forest industry workforce development program to support Tennessee's forest industry workforce needs. The Division will continue to apply funding to our strategic priorities, better positioning us to protect, conserve, and enhance Tennessee's forests.

Program Goals

- The overarching goal is to maintain and improve the health of urban and rural forests and related economies as well as to protect the forests and citizens of the state. These programs maximize cost effectiveness through the use of partnerships in program delivery, increase forestland value and sustainability, and they do so in a voluntary and non-regulatory manner.
- The cooperative programs are administered and implemented through a partnership between the State of Tennessee, the USDA Forest Service, and many other private and government entities. These programs promote the health and productivity of forestlands and rural economies. Emphasis focuses on timber and other forest products, wildlife, water resources, rural economies and conservation practices.
Key Issues

- Supporting active forest management and initiatives to create and sustain diverse and competitive forest product markets.
- Dealing with increasing forest health risks from native and non-native forest pests, from an aging forest, and from an urbanizing human population.
- Dealing with increasing demand for prescribed fire services to ensure management objectives are met while minimizing the potential for escaped fires.
- Maintaining a motivated, well-trained, experienced work force.
- Determining appropriate services and incentives to create value added forest industry based jobs.
- Taking advantage of the current and future income and marketing opportunities forest certification offers non-industrial private forest (NIPF) landowners for managing their lands.
- Determining the most effective ways for the Tennessee Division of Forestry to use existing and emerging technology to improve forest health.
- Utilizing social media to educate and engage Tennessee citizens and landowners with forestry issues.

Forest Facts and Accomplishments

<table>
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<tr>
<th>Selected Facts</th>
<th>Value</th>
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<tbody>
<tr>
<td>Population</td>
<td>6,910,840</td>
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<tr>
<td>Acres of Forest Land</td>
<td>13,846,005</td>
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<tr>
<td>Acres of Nonindustrial Private Forest Land</td>
<td>9,703,581</td>
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<tr>
<td>Number of NIPF Landowners</td>
<td>197,040</td>
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<td>Acres of Federal Land Under State Fire Protection</td>
<td>70,000</td>
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<td>Acres of Private Land Under State Fire Protection</td>
<td>25,668,400</td>
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<tr>
<td>Number of Rural Fire Departments</td>
<td>821</td>
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<tr>
<td>Cities and Towns</td>
<td>343</td>
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<tr>
<td>Forest Based Employment</td>
<td>85,500</td>
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<tr>
<td>Economic Impact of Forestry (by rank)</td>
<td>3</td>
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<tr>
<td>State Forestry Budget (All Sources)</td>
<td>42,477,700</td>
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<table>
<thead>
<tr>
<th>FY 2023 Accomplishments</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowners Receiving Educational or Technical Assistance</td>
<td>76,559</td>
</tr>
<tr>
<td>Acres Covered by New or Revised Forest Stewardship Plans</td>
<td>2,352</td>
</tr>
<tr>
<td>Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans</td>
<td>466</td>
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<tr>
<td>Volunteer Fire Departments Assisted</td>
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<tr>
<td>State Fire Communities Assisted</td>
<td>55</td>
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<tr>
<td>Coop Forest Health Acres Protected</td>
<td>2,128</td>
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<td>Forest Legacy Project Acquisitions</td>
<td>0</td>
</tr>
<tr>
<td>Communities Provided Urban Forestry Program Assistance</td>
<td>52</td>
</tr>
<tr>
<td>Population Living in Communities Provided Urban Forestry Program Assistance</td>
<td>3,017,913</td>
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<tr>
<td>Urban Forestry Volunteer Assistance</td>
<td>10,544</td>
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Program Highlights

Conservation Education

- 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 and filled contracted outreach content media manager position to assist implementing the division's communications strategic 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.

Cooperative Fire Protection
• Deployed 121 highly-trained personnel & 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 & safely implemented 147 beneficial prescribed fires across 6,739 acres in Tennessee.
• 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 TN/KY Wildland Fire Academy and a one-week advanced dozer operator academy at Bledsoe State Forest.
• 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.
• 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.
• Issued 317,003 safe debris burn permits to residents, agencies, and private companies decreasing wildland fire risk on 67,474 acres.

Economic Action
• Harvested over $1.8 million in planned timber sales and over $1.6 million in salvage operations on State Forests.
• Administered the Timber Products Output survey with a response rate of 61%.

Forest Health Protection
• Recorded 603 forest health observations submitted statewide by Division personnel on ESRI's Survey123 platform. Observations included widespread abiotic injury, particularly freeze damage and tornado damage, 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.
• Deployed Early Detection Rapid Response (EDRR) traps to assess possible introductions of new invasive insects as part of the USFS’s EDRR protocol.
• Deployed emerald ash borer (EAB) traps to assess the distribution of this beetle in counties not yet confirmed to have EAB.
• Completed road and ground surveys for the presence of laurel wilt disease, detecting the disease in two additional counties.
• Provided funding for 5 invasive plant control projects with a total project funding for all areas is $79,600, with $37,400 being provided through federal funding, and $42,200 being provided as match from participating organizations.
• 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.
• Supported the Lindsay Young Beneficial Insects Laboratory in releasing more than 2,000 Laricobious Osakensis beetles, collecting food for beetles, assisted in the lab, and finding new release sites.

**Forest Legacy**

• 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.

**Forest Stewardship**

• Assisted 10,836 forest landowners and educated 54,769 Tennesseans through direct outreach programs.
• Wrote 16 Forest Stewardship plans addressing 1,626 acres.
• 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.

**Reforestation:**

• 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 seeding 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.
  Sold 2,334,375 seedlings, including 1,662,525 pine and 671,850 hardwood
  Produced $342,074.22 in revenue

**Landowner Assistance**

• Wrote 182 forest management plans addressing 16,491 acres.
• Wrote 247 prescription plans improving 14,667 acres.
• 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.
• Completed 65 logging site complaint checks, of which 30 of had violations. The top three
complaints related to Steam-side Management Zone (SMZ) problems (25 complaints), stream crossings (21), and skid trail issues (18). Eight SMZs were resolved, and seven stream crossings and four skid trails were fixed.

- Completed 39 logging site complaint checks, of which 18 had violations. The top four complaints related to stream-side management zone (SMZ) problems (10 complaints), stream crossings (7), landings (8) and skid trail issues (8). Three SMZs were resolved, one stream crossing, one landing, and one skid trail issue was resolved.
- Observed over 98% compliance rate for BMPs on harvesting operations.
- Completed 65 logging site complaint checks, of which 30 of had violations. The top three complaints related to stream-side management zone (SMZ) problems (25 complaints), stream crossings (21), and skid trail issues (18). Eight SMZs were resolved, and seven stream crossings and four skid trail issues were resolved.
- Completed 744 logging site courtesy checks.
- Partnered with the Tennessee Forestry Association 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.

**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. In order to better understand our customers and if TDF was meeting their needs, TDF 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. TDF then convened a two-day 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. Based on these efforts, a 5 year strategic plan was developed focusing on 5 goals:

- **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.

**Landscape Scale Restoration**

Hemlock Woolly Adelgid Suppression TN/KY (reported in Forest Health Protection section)

Landscape Management Plan (reported in Forest Stewardship Section)

Forestry Workforce Promotion and Training Program

4300 individuals engaged at career fairs; 130 individuals engaged at school programs/teaching opportunities; 1500 student leaders engaged at FFA convention; 31 students taught at NHLA lumber grading shortcourse; 12 loggers taught at a master logger class; numbers legislators and Farm Bureau representatives engaged at various events.

Received TN Dept. of Ed approval for Forestry Worker curriculum to be taught in high schools. Trained and tested 12 teachers to deliver curriculum. Engaged 16 technical colleges to offer Forestry Worker curriculum; 35 registered students at TCAT Hohenwald & 320 registered at TCAT Crump. Created a sawmill/logging apprenticeship. Established ESL classes after work hours at 1 sawmill; sponsored Be Pro Be Proud truck.
Urban and Community Forestry

- Administered Tennessee Agricultural Enhancement Program tree planting grants for 19 municipalities/non-profit organizations resulting in 1,718 trees planted for a total investment of $256,720.
- Awarded $4.125 million dollars 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 two 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.
- 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.
- Collaborated with the USDA Forest Service and Urban Wood Economy in planning for the 2023 Urban Wood Academy in Memphis, TN.
- 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.

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