Investment in State’s Cooperative Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2020 Final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Forestry and Open Space</td>
<td>$0</td>
</tr>
<tr>
<td>Cooperative Lands - Forest Health Management</td>
<td>$626,077</td>
</tr>
<tr>
<td>Forest Legacy</td>
<td>$0</td>
</tr>
<tr>
<td>Forest Stewardship</td>
<td>$182,463</td>
</tr>
<tr>
<td>Landscape Scale Restoration</td>
<td>$411,500</td>
</tr>
<tr>
<td>State Fire Assistance</td>
<td>$1,238,984</td>
</tr>
<tr>
<td>Urban and Community Forestry</td>
<td>$321,346</td>
</tr>
<tr>
<td>Volunteer Fire Assistance</td>
<td>$272,299</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,052,669</strong></td>
</tr>
</tbody>
</table>

NOTE: This funding is for all entities within the state, not just the State Forester’s office.

Program Goals

- 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.
- 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.

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 facilitate increased forest management on private lands when the average tract size is shrinking and long-term landowners are increasingly passing management of land to inexperienced heirs.
- Providing landowners guidance before timber is harvested to ensure the harvest method is meeting objectives and that a plan is in place for regeneration.
- 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>
<thead>
<tr>
<th>Selected Facts</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>6,346,105</td>
</tr>
<tr>
<td>Acres of Forest Land</td>
<td>13,881,540</td>
</tr>
<tr>
<td>Acres of Nonindustrial Private Forest Land</td>
<td>11,206,000</td>
</tr>
<tr>
<td>Number of NIPF Landowners</td>
<td>534,000</td>
</tr>
<tr>
<td>Acres of Federal Land Under State Fire Protection</td>
<td>70,000</td>
</tr>
<tr>
<td>Acres of Private Land Under State Fire Protection</td>
<td>25,688,400</td>
</tr>
<tr>
<td>Number of Rural Fire Departments</td>
<td>821</td>
</tr>
<tr>
<td>Cities and Towns</td>
<td>345</td>
</tr>
<tr>
<td>Forest Based Employment</td>
<td>98,154</td>
</tr>
<tr>
<td>Economic Impact of Forestry (by rank)</td>
<td>4</td>
</tr>
<tr>
<td>State Forestry Budget (All Sources)</td>
<td>31,611,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FY 2020 Accomplishments</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landowners Receiving Educational or Technical Assistance</td>
<td>31,561</td>
</tr>
<tr>
<td>Acres Covered by New or Revised Forest Stewardship Plans</td>
<td>8,654</td>
</tr>
<tr>
<td>Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans</td>
<td>3,749</td>
</tr>
<tr>
<td>Volunteer Fire Departments Assisted</td>
<td>75</td>
</tr>
<tr>
<td>State Fire Communities Assisted</td>
<td>125</td>
</tr>
<tr>
<td>Coop Forest Health Acres Protected</td>
<td>3,447</td>
</tr>
<tr>
<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</td>
<td>2,728,351</td>
</tr>
<tr>
<td>Provided Urban Forestry Program Assistance</td>
<td>31,611,000</td>
</tr>
<tr>
<td>Urban Forestry Volunteer Assistance</td>
<td>9,488</td>
</tr>
</tbody>
</table>

Program Highlights

Conservation Education

- Held 1,576 educational outreach activities reaching 30,580 children and adults statewide.
- 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.
- Cancelled the 71st annual Forestry Camp due to global COVID-19 pandemic, ending a 70-year consecutive run.
- Produced 22 news releases pertaining to relevant topics including forest pests, wildland fire danger, burn permit requirements, capital improvements, tree planting, urban forestry, cost share opportunities, state forest closures, and state forest certification.
- Gave multiple radio and television interviews addressing Division programs and topical issues.
- Promoted Division services and outreach campaigns across multiple media outlets. This included advertising campaigns for wildland fire prevention, forest health, the Tennessee Wood Products campaign, and East Tennessee Nursery tree seedlings.
- Grew reach of social media profiles for Protect TN Forests conservation campaign including Facebook (added 266 Likes and a reach of 80,755 people with 114,829 impressions), Twitter (added 46 new followers and 37,700 impressions), and Instagram (analytics unavailable) to reach a broad audience and promote conservation education and Division activity in forest management.

Cooperative Fire Protection

- Deployed 66 highly trained personnel to support wildfire and all hazard emergencies across the nation resulting in transferrable skills to be utilized in Tennessee as well as generating over $900,000 in revenue.
- Secured $764,310 in grant funding to support state fire assistance surrounding remote automated weather stations, training, supplies, and personal protective equipment.
- Facilitated the 17th annual Wildland Fire Training Academy. The academy provided 789 students from 30 states access to 41 high quality fire and leadership courses taught by 116 professionals over the two-week period.
- Suppressed 443 fires for 3,668 acres. The division recorded 251 saved private and commercial structures at an estimated value of $124,675,950.
- Awarded $186,467 to 105 volunteer fire departments.
- Provided free wildland fire training to 250 students from 30 fire departments.
- Secured $264,368 in federal grants to support providing financial and technical assistance and training to fire departments.
• Secured $142,613 in new Community Fire Protection grant funding for 250,000-acre project area for wildfire hazard mitigation work in Cocke County.
• Awarded $110,000 in hazard mitigation grants to 17 communities for Community Wildfire Protection Plan development, outreach, education and community mitigation action items.
• Issued 448,223 safe debris burn permits to residents and agencies totaling 32,546 acres.
• Certified three new Firewise USA communities and carried four new communities into FY 2020.
• Reviewed and updated Memorandums of Understanding for 105 volunteer fire departments.
• Initiated replacement of 112 firefighting bulldozers and 112 heavy equipment transports through coordination with Vehicle Asset Management and third-party vendors.
• Developed internal COVID-19 and infectious disease guidance documentation and best practice measures allowing continued support of critical mission functions.

FiResponse
• Implemented fiResponse, an enterprise decision support system that provides capabilities for monitoring wildland fire incidents and all associated operational activities related to incident response, dispatch, and resource tracking.
• Developed training materials and documentation for fiResponse implementation with the Wildland Fire Protection Unit. TDF developed a series of short instructional videos designed for field personnel. Personnel received training in-person and remotely. A core group of early adopters were identified and targeted for further training, enabling them to be experts within their respective districts.

Forest Health Protection
• Recorded 1,015 forest health observations submitted statewide by Division personnel by a new mobile platform, ESRI's Survey123.
• Protected 17,639 hemlock trees across 1,751 acres in 18 conservation areas.
• Released 53 Laricobius nigrinus and 363 L. osakensis beetles on Pickett State Forest in cooperation with the Lindsay Young Beneficial Insect Laboratory to help control the spread of hemlock woolly adelgid.
• Monitored state-wide gypsy moth activity via placement of 5,536 traps, capturing 61 male gypsy moths in 8 counties, which is a significant decrease from 171 moths trapped during the same period in 2019.
• Conducted gypsy moth mating disruption treatments on 8,567 acres in Johnson County.
• Completed road surveys across 17 counties for the presence of laurel wilt disease of which ten counties had symptomatic sassafras trees.
• Confirmed emerald ash borer in all previously quarantined counties in addition to two counties not previously within the quarantined area.
• Held several forest health training events for Division personnel, partner agencies, and private landowners.
• Staffed a Prescribed Fire Strike Team including four crew members and one crew leader. The strike team coordinator oversees this team as well as the HWA Strike Team.

Forest Legacy
• Submitted the Myers Cove project proposal for Forest Legacy funding. The proposal was ranked 8th nationally. If funded, this 2,100 acre working forest in Warren County will be protected through a conservation easement. The project will cost $2.4 million with Forest Legacy providing $1.8 million.
• Completed all annual compliance monitoring visits for Forest Legacy conservation easement tracts.
• Completed spatial analysis and programmatic policy updates which were used as the basis for the updated Forest Legacy Assessment of Need and Forest Legacy Priority Areas.

Forest Stewardship
• Provided assistance to 2,406 forest landowners who own 172,355 acres of forestland. This type of boots on the ground assistance is up 137% from the previous year.
• Wrote 78 Forest Stewardship plans addressing 9,123 acres.
• Wrote 497 other forest management plans addressing 62,273 acres.
• Wrote 653 prescription plans improving 25,473 acres.
• Provided services for standby, firebreak construction, tree planting, and timber marking.
• Conducted 1,046 harvest operation site visits statewide and responded to 45 reported water quality complaints.
• Determined yearly logger BMP implementation rate of 98% based on harvest sites inspected for compliance.
• Determined 19 of the 45 sites that were visited due to reported water quality complaints had issues.
affecting water quality and had to be brought back into compliance with Tennessee's Water Quality Control Act (TCA 69-3-101) with Division technical expertise provided.
• Expanded One Tree Planted Green Partnership contribution of $1,500 to $5,000 for free hardwood seedlings to landowners statewide.
• Developed Duck and Elk River Watershed Forest Initiative (DEWI) Green Partnership that will give seedlings to landowners in the regions for nut and riparian type seedlings to increase habitat and reduce erosion.
• Donated excess sawtooth acorns to the Appalachian Bear Rescue as food for bears being rehabilitated.
• Sold 2,389,928 seedlings (1,451,575 pine and 938,353 hardwood)

Landowner Assistance
• Funded 62 cost-share applications for completing forest management practices totaling $270,000.
• Provided training and technical assistance to more than 3,000 foresters, loggers, and landowners since the start of the program in partnership with the Tennessee Forestry Association.
• Assisted 209 landowners in the implementation of forest management activities on 4,364 acres that included hardwood and softwood tree planting, site preparation and release activities, prescribed burning, wildlife habitat improvement, stream crossings, and erosion control.
• Completed 4,201 acres of prescribed burning via vendor services.

Unmanned Aircraft System (UAS)
• Launched the UAS Program by developing a Standard Operating Procedures manual for staff pilots with guidance from the Department's legal counsel. The initial fleet of unmanned aerial vehicles (UAVs) was purchased with a $21,000 Landscape Scale Restoration grant.

Urban and Community Forestry
• Administered Tennessee Agricultural Enhancement Program tree planting grants for 11 municipalities that planted 1,612 trees for a total investment of $210,062.
• Assisted City of Clarksville with site and tree selection for riparian buffer enhancement project on the north bank of the Red River at Billy Dunlop Park.
• Provided technical assistance to 46 Tree Cities, 19 Tree Lines, and 10 Tree Campus Higher Learning USA members.
• Trained multiple organizations on urban and community forestry principles and activities totaling 148 hours.
• Revised Champion Tree Program contract with University of Tennessee – Knoxville.
• Participated in or supported Arbor Day Celebrations statewide.
• Assisted Germantown in becoming the first Tree City of the World recognized in Tennessee.
• Supported a staff member to graduate from the Municipal Forestry Institute in February 2020.

Contact Information

Tennessee Department of Agriculture

David Arnold
State Forester
Division of Forestry
P.O. Box 40627, Melrose Station
Nashville, TN 37204
615-837-5411
david.arnold@tn.gov

US Forest Service
Southern Region

Jan Davis
Deputy Regional Forester - State and Private Forestry
USDA Forest Service
1720 Peachtree Street, Suite 760S
Atlanta, GA 30309
202-860-6275
janette.davis@usda.gov