



TENNESSEE FOREST RESOURCE PRIORITIES IDENTIFIED

The Tennessee Department of Agriculture Division of Forestry (TDF), along with numerous forest resource stakeholders, completed the Tennessee Forest Resource Assessment and Strategy in conjunction with a national effort towards conserving, protecting and enhancing our forests.

“The benefit that forests provide for water resources is central to the theme of this assessment and strategy,” said Steve Scott, State Forester for Tennessee. “Forest landscapes can provide us with the quality and quantity of water we require.”

The assessment provides an analysis of forest conditions, trends and threats in Tennessee. Strategies provide long-term plans for addressing needs identified in the assessment. Top priority areas and issues identify where natural resource agencies, including TDF, partner organizations and federal programs will target strategy implementation. The assessment was required for forestry agencies across the nation by the federal 2008 Farm Bill.

One concern identified in the assessment is a trend related to urban sprawl and

forestland conversion to other uses. For example, between 1990 and 2000, Tennessee experienced an estimated 360,000 acre increase in urban area, resulting in the loss of 178,000 acres of forestland to urban use. At this rate, an additional 1.2 million acres of forestland could be urbanized by 2050.



“Healthy forests act as natural filtration systems to our water resources, and if we are to continue to provide natural solutions to conserving the quality of water delivered to our communities, we must start with ensuring our forests remain as forests,” said Scott.

The Tennessee Forest Resource Assessment and Strategy is a compilation of ideas grouped together from multiple agencies, partners, and forest resource stakeholders including landowners and the public. It marks the beginning of an ongoing process of resource management and planning that will help steer forest conservation decision making. The anticipated result will be healthier and more resilient landscapes, better and more fire-adapted communities, improved habitat, air and water quality.

Water Quality Better Protected Through Targeted Forest Stewardship

excerpt from the Tennessee Forest Resource Assessment and Strategy

Tennessee’s forests are facing forest health issues that, if not addressed, could significantly change the benefits derived from our State’s forests. Protecting, maintaining, and enhancing a public use water supply is a basic need for all Tennessee citizens. As a result, forest

health threats and public water supply benefits have been emphasized in the development of the Forest Stewardship priority areas map.

The Forest Stewardship Priority Areas Map (shown on page 20) displays all watersheds containing combinations of forest types subject to insect or disease

continued on page 20...



Forest Resource Protection



Forest Resource Management



Urban Forest Resource Management



State Forest Management



Reforestation



Forest Data & Technology



Forest Businesses



Environmental Affairs & Public Outreach

Tennessee Forestry Commission

Members

Core Businesses
Table of Contents:

Forest Resource Protection
Fire 3
Health..... 4
Water Quality..... 5

Forest Resource Management
Landowner Assistance..... 6
Forest Legacy..... 7

Urban Forest Resource
Management.....8

State Forest Management.....9

Reforestation
Seedling Nursery..... 10
Tree Improvement..... 11

Forest Data and Technology.12
Geographic Information
Systems.....13
Forest Inventory and
Analysis.....14
Radio Communications.....14

Forest Business 15

Environmental Affairs and
Public Outreach.....16
Information & Education...17

Safety and Training..... 18

Administration 19

Bill Williams, Chair

Newport, TN
Represents hardwood manufacturers

John Ross, Vice-Chair

Savannah, TN
Represents owners of greater than 500 acres

Paul Trianosky, Secretary

Mountain City, TN
Represents owners of less than 500 acres

Jack Holder

Counce, TN
Represents pulp and paper manufacturers

Ronnie James

Hohenwald, TN
Represents owners of less than 500 acres

Dottie Mann

Clarksville, TN
Represents conservation organizations

James W. Reeves

Stanton, TN
Represents Public at Large

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Agriculture

Ed Carter, Ex-Officio

Director - Tennessee Wildlife Resources
Agency

Jim Fyke, Ex-Officio

Commissioner - Tennessee Department of
Environment and Conservation

Tennessee Forestry Commission Actions and Activities for 2010

The Tennessee Forestry Commission met four times during the 2010 fiscal year. The Commission received reports from citizens, staff, and subject matter experts on various forestry topics and issues affecting forest landowners and citizens of Tennessee during the year. The Commission discussed and took action on the following matters:

- Reviewed and approved the Division of Forestry operating budget for FY2011.
- Reviewed and approved the Division of Forestry forest seedling price schedule for 2010-11.
- Visited and toured the Delano State Forest Tree Seedling Nursery in January 2010.
- Reviewed and approved the Division of Forestry annual activities report for 2009.
- Presented the Forestry Commission’s 2009 Annual Report to the House Conservation and Environment Committee and the Senate Environment, Conservation and Tourism Committee.
- Supported Division of Forestry and other partner agencies and organizations in their efforts on the Tennessee Forest Resource Assessment and Strategy.
- Reviewed and approved the Tennessee Forest Resource Assessment and Strategy as being the Division of Forestry long range plan for the State’s forest resources.
- Discussed and received comments on the implementation of the Tennessee Forest Resource Assessment and Strategy.
- Discussed the need for more inclusive LEED green building standards to include forest products certified or recognized under the American Tree Farm program or Forest Stewardship program in Tennessee.
- Discussed and received comments on hunting regulations and deer platforms and the danger of using cotton harvesting spindles as tree stand steps, article published in TWRA Tennessee 2010 Hunting & Trapping Guide.
- Discussed and received comments on damage to forest lands caused by off road vehicle use.
- Received comments on tree planting practices and general tree care as performed by state agencies and agency contractors on state property.
- Recommended training be offered by the Division of Forestry to other state agencies on tree planting and tree care as applied on state properties.
- Received comments from the Southern Appalachian Back Country Horsemen on the need for more horseback riding trails in Tennessee’s state forests.



Forest Resource Protection

Wildland Fire Protection

Mission: Minimize damage caused by wildfire to forest resources and personal property while giving priority to firefighter safety.

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

Objectives for Year

- Increase Fire Prevention integration.
- Integrate National Fire Danger Rating System (NFDRS) into District Fire Plans.
- Integrate Southern Wildfire Risk Assessment (SWRA).

Major accomplishments for July 1, 2009 – June 30, 2010

- Contracted with Tennessee Radio Network to broadcast fire prevention Public Service Announcements across the state with emphasis on obtaining a burn permit and awareness of weather conditions.
- Held Annual fire prevention planning workshop with Assistant District Foresters.
- Conducted Fire Prevention Plan writing training to Technicians and Area Foresters in each District.
- Conducted Fire Prevention training for all county personnel in each District.
- Increased Fire Prevention outreach over 250% with 2,471 activities reaching nearly 240,000 people.
- Suppressed 902 forest fires that burned 12,961 acres.
- Issued 415,084 burn permits across the state.
- Conducted 2 Firewise - Fire Prevention Teacher workshops in mid-state.
- Conducted 4 Firewise Community Leader workshops across the state.
- Completed 1 Community Wildfire Protection Plan in east Tennessee.
- Continued integration of the National Fire Danger Rating System to establish Preparedness Levels indices in each District.
- Completed Federal Excess Personal Property biannual inventory.
- Served on regional committee to review the Southern Fire Prevention and Wildland Urban Interface (WUI) Strategies.
- Provided \$238,000 in grant funds to Volunteer Fire Departments across the state.

Unit Mission

The mission of the Forest Resource Protection Unit is to reduce losses from wildfires and forest pests, and to prevent water quality degradation from forestry sources. The Forest Resource Protection Unit administers the Division's Wildland Fire Protection, Forest Health, and Water Quality programs.



Forest Resource Protection

Forest Health

Mission: Minimize forest resource losses caused by forest pests through effective prevention, detection, evaluation, suppression, and technical assistance measures.

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

Objectives for Year

- Detect, monitor, and manage forest pests.
- Implement the gypsy moth Cooperative Agricultural Pest Survey (CAPS) and Delimiting Work Plans for 2010.
- Implement the Hemlock Woolly Adelgid Strategic and Management Plan.
- Secure forest health support.

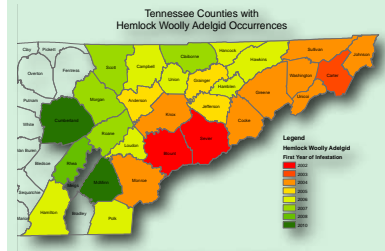
Major accomplishments for July 1, 2009 – June 30, 2010

- Completed hemlock woolly adelgid surveys in East Tennessee. New county finds were McMinn and Cumberland Counties (see sidebar).
- Provided finances along with the Tennessee Department of Environment and Conservation and the Tennessee Wildlife Resources Agency in hiring additional personnel at the University of Tennessee beneficial insects laboratory to increase production of biological control agents to reduce hemlock woolly adelgid populations on state lands.
- Conducted southern pine beetle (SPB) trapping in Chester, Marion, Rhea, and Wayne Counties where pine is a major component of several forest types. Surveys indicated low and stable SPB populations for this summer. Surveys for the entire southeast region of the country generally indicated the same for all the southern states.
- Completed the Early Detection and Rapid Response (EDRR) program for exotic bark beetles in Tennessee in cooperation with the US Forest Service and APHIS-PPQ. Seven sites across the state were selected for monitoring, which began in May 2009 and completed at the end of September 2009.
- Coordinated watershed sampling (stream baiting) of ten watersheds in East and Middle Tennessee for the pathogen that causes sudden oak death (SOD) with the University of Tennessee. This ongoing survey has thus far indicated no positive samples for SOD within the ten watersheds.
- Continued the 2010 emerald ash borer (EAB) national survey with traps set in 9 public and privately owned campgrounds in Middle Tennessee. This ongoing survey has thus far indicated no presence of EAB in these areas.
- Conducted gypsy moth egg mass surveys at two sites in Bledsoe County, one site in Roane County (Pattie Gap Road), one site in Johnson County (Shady Valley Community). Multiple egg masses, caterpillars and pupae were found at the Bledsoe and Roane County sites. Delimiting grids were created to determine the extent of the infestations in Bledsoe and Roane Counties for this year's trapping season.
- Currently monitoring the Johnson County gypsy moth infestation after spray treatments using pheromone flakes by the U.S. Forest Service of approximately 360 acres (260 federal, 100 non-industrial private). This monitoring effort requires approximately 200 delimiting traps.
- Currently managing the 2010 gypsy moth detection and delimiting survey programs involving over 12,000 traps in 95 counties.
- First discovery of beech scale, a combination of an exotic bark beetle and a canker-causing fungus it carries, was found in Beech Gap in Monroe County.

Hemlock Woolly Adelgid Spreads West



First discovery of hemlock woolly adelgid in McMinn Co.



Map of Tennessee counties known to have HWA.



Forest Resource Protection

Water Quality

Mission: Protect waters of Tennessee from degradation attributable to forestry practices.

The Division of Forestry works to ensure that forestry practices are performed in a manner that does not result in the degradation of the State's water resources. The Water Quality program involves prevention, education, training, monitoring, response to complaints, and assistance to Tennessee Department of Environment and Conservation (TDEC) Division of Water Pollution Control (WPC) with complaint resolution.

Objectives for Year

- Increase courtesy checks and logger contacts.
- Provide Master Logger and Continuing Education Units (CEU) education with emphasis on stream crossings.

Major accomplishments for July 1, 2009 – June 30, 2010

- Held 3 Best Management Practices (BMP) training sessions attended by 66 loggers in conjunction with the Tennessee Master Logger program.
- Conducted 1,181 contacts with landowners and loggers, providing technical assistance concerning application of BMP; 728 of these were courtesy checks were with loggers (see picture).
- Prepared 1,378 written BMP recommendations for forest landowners in forest management plans and timber sale assistance.
- Investigated 31 complaints arising from forestry operations in cooperation with the TDEC WPC.
- Investigated and made recommendations on 112 complaints from other sources.
- Assisted with 7 Notices of Violation and 1 Director's Order issued by TDEC WPC.
- Presented 3 BMP sessions in cooperation with the Tennessee Forestry Association (TFA) for the Tennessee Master Logger program, training 66 loggers.
- Provided Master Logger scholarship funding through the Tennessee Agricultural Enhancement Program, in partnership with the TFA, to train 352 loggers in BMP's.



Area Forester Chris Carney and Forest Technician Joe Bryson conduct courtesy check and give advice on water bar installation with logger in Cannon County.



Forest Resource Management

Forest Landowner Assistance

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

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

Objectives for Year

- Provide land use planners with resource management information.
- Distribute multi-resource plan writer for Stewardship and Tree Farm plans.
- Incorporate TDEC Threatened & Endangered database into forest management planning.
- Input all new Stewardship tracts and develop spatial database of all previous tracts.

Major accomplishments for July 1, 2009 – June 30, 2010

- Provided 2,119 on the ground assists to landowners (1,357 were first time assists) (see picture).
 - ◊ Forest Management Planning
 - » Wrote 150 Forest Stewardship plans addressing 31,013 acres.
 - » Recognized implementation of 24 Forest Stewardship plans addressing 4,384 acres.
 - » Wrote 1,378 other forest management plans addressing 118,555 acres.
 - ◊ Forest Stand Prescription Planning
 - » Wrote 357 prescription plans addressing 18,363 acres.
 - ◊ Forest Stand Prescriptions Implemented
 - » Assisted 30 landowners in planting 385 acres of hardwoods.
 - » Assisted 103 landowners in planting 3,975 acres of pines.
 - » Assisted 90 landowners in forestry practices on 3,495 acres associated with the Department of Agriculture's Tennessee Agricultural Enhancement Program.
 - » Assisted 16 loggers with 15 temporary stream crossing structures and 188 wet area crossing structures through the Department of Agriculture's Tennessee Agricultural Enhancement Program.
- Input into the Plan Writer database contact information on 1,709 landowners who have received Stewardship Plans over the last 10 years and 758 tracts have been recorded in the GIS system from parcel maps, aerial photos and GPS data. All plans for the last 2 years have spatial data.
- Partnered with the American Forest Foundation to provide training for forestry consultants in the use of geographic information system and databases developed by the Division to write forest management plans. Held 3 training sessions with 36 consultants attending a one day class in database management and GIS.

Unit Mission

The mission of the Forest Resource Management Unit is to promote and advance sustainable forest management on non-industrial private forestlands for the multiple uses and benefits provided by forested landscapes. The Forest Resource Management Unit administers the Division's Landowner Assistance and Forest Legacy programs.



Area foresters provide services and information to landowners to maintain the health and productivity of their forests. Active management leads to increased sustainability of forest products and non-timber benefits. Neglect often results in forests damaged by insects, fire, and disease.



Forest Resource Management

Forest Legacy

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

The Forest Legacy Program identifies and protects environmentally important private forestlands that are threatened by conversion to non-forest uses. Program emphasis is to maintain well-managed, working forests on the landscape. Since initial involvement in 2000, fee simple and permanent conservation easement purchases now total 39,726* acres valued at \$38.4* million. Tennessee utilized \$21* million of federal Forest Legacy grant money in reaching that total.

*These numbers have been revised from last year's report due to clarification in record keeping process.

Objectives for Year

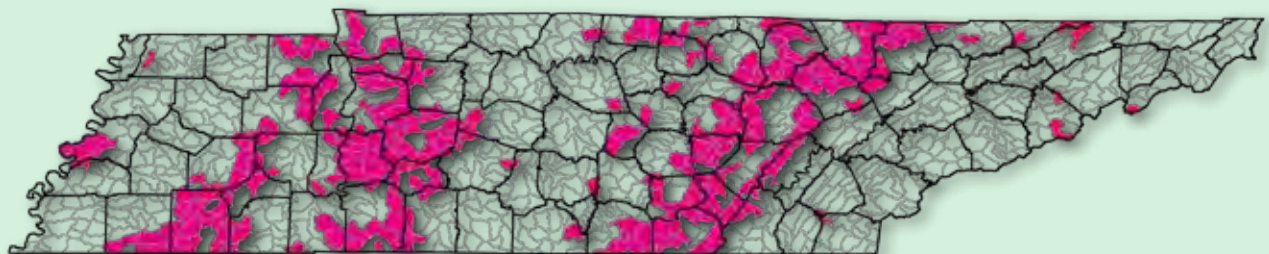
- Close active projects.
- Complete revision of assessment of needs.
- Finish baseline documentation on conservation easements.
- Promote/document Legacy program and projects.
- Identify tracts that meet State Forest objectives.

Major accomplishments for July 1, 2009 – June 30, 2010

- Obtained funding for fee simple purchase of additional 2,146 acres valued at \$5.5 million for federal 2010 grant year consideration.
- Obtained federal Fiscal Year 2011 President's Request approval for funding a fee simple purchase of 1532 acres valued at \$4.0 million.
- Assessment of Need was revised and incorporated into the Tennessee Forest Resource Assessment and Strategy (see sidebar).

Forest Legacy Assessment of Need (2014)

The Forest Legacy areas map displays watersheds that are heavily forested, face high levels of threat to development, and hold significant value in enhancing or maintaining aquatic resources. Aquatic resources considered include watersheds that either have public drinking water supply intakes, well established forested riparian habitats, or critical aquatic wildlife habitat. Individual watersheds could possess more than one aquatic resource. This approach to identifying FLP priority areas will address all the program objectives of Tennessee's FLP with added emphasis on enhancing and maintaining a clean public use water supply. Watersheds that contain previously purchased Forest Legacy properties are also included.



Legend

- Eligible Forest Legacy Watershed
- County Boundary
- Watershed Boundary

50 25 0 50 100 150 200
Miles





Urban Forest Resource Management

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

Objectives for Year

- Improve the Department of Agriculture's Tennessee Agricultural Enhancement Program (TAEP) cost-share for community tree planting by implementing an inspection/follow up site visit.
- Provide urban and community forestry assistance to cities and towns across Tennessee and to green industries (arborists, grounds managers, landscape architects, others) that impact the management of the urban forest resources.
- Administer grants, Tree City USA, Tree Line USA, Tree Campus USA, Arbor Day poster contest, Champion Tree and related program and project administration.
- Complete a canopy cover analysis for Tennessee communities.
- Implement Interface Index as a natural resource planning tool.

Major accomplishments for July 1, 2009 – June 30, 2010

- Completed a canopy cover assessment for Nashville (see sidebar).
- Completed 20 FY2010 Tennessee Agriculture Enhancement Program (TAEP) community tree planting grants. An estimated 2,705 trees were planted as part of 27 projects.
- Administered grants for TAEP community tree planting for FY2010 and the Urban and Community Forestry grants for FY2008 and FY2009.
- Completed a fifth panel of urban Forest Inventory and Analysis plots.
- Continued integration and implementation of Edison for TAEP and U&CF grant administration.
- Made 129 assists to 52 cities and towns; assists included providing information to tree boards, ordinance reviews, tree city information, planting recommendations, etc.
- Partnered with the Tennessee Urban Forestry Council to host a state urban forestry conference.
- Provided assistance to the Tennessee Urban Forestry Council as needed.
- Certified 1 new Tree Line USA, and re-certified 11 Tree Line USA's (Tennessee is second in the country in recognized Tree Line USA's).
- Recognized 39 cities and towns as Tree City USA.
- Certified Cleveland State Community College as Tennessee's first Tree Campus USA.
- Completed the State-wide Arbor Day Poster contest – 42 teachers and 1,287 students participated.

Unit Mission

The mission of the Urban Forest Resource Management Unit is to assist and encourage municipalities and private urban landowners to establish, improve, and maintain urban forest resources.

Davidson County Canopy Cover

Nashville/Davidson County canopy cover assessment indicated that 47% of the county was covered by trees. Most of the canopy lies in the undeveloped region in the western part of the county. Return on urban tree cover benefits are best captured in areas of greater development.





State Forest Management

The Tennessee Department of Agriculture Division of Forestry manages 15 state forests totaling 167,302 acres based upon multiple-use and sustainable forest principals. The forests are quite varied, ranging from mountain coves to cedar glades to bottomlands along the Mississippi river.

Objectives for Year

- Complete state forest inventory/analysis.
- Complete scheduled compartment plans.
- Achieve third party Forest Stewardship Council (FSC) forest management certification.
- Utilize state forests for demonstration of forest practices.
- Complete web based catalog of state forest demonstrations.
- Keep the State Forest Timber Sale Web page up-to-date.

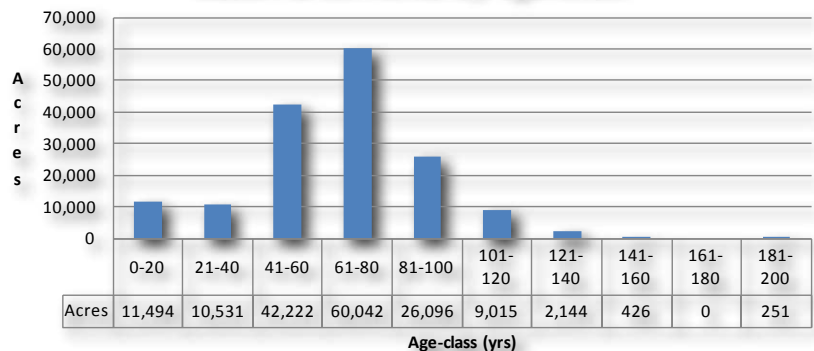
Major accomplishments for July 1, 2009 – June 30, 2010

- Completed the forest inventory field data collection for all plots on all forests.
- Twelve State Forest forest inventory analysis summaries have been completed to-date; data for the remaining three forest summaries are being summarized. Summaries to be completed in early August (see chart).
- 12 compartment plans were submitted for approval; 5 were approved by the end of the reporting period.
- Completed FSC forest management and chain of custody recertification initial assessment. Remedies to a corrective action request (CAR) were completed. Contract for completing the CAR verification audit is pending approval.
- Completed the forest harvest method demonstration installation implemented in conjunction with the University of Tennessee. These demonstration/study areas are located on Chickasaw, Standing Stone and Prentice Cooper State Forests.
- Completed the web based state forest demonstration catalog information data collection and summarization. We are in the process of re-designing the state forest web page and the catalog will be included and posted when the re-design is completed.
- Completed a major easement request for a power line right-of-way associated with a new prison project at Bledsoe State Forest.
- Put up for sealed bid an unprecedented 27 timber sales with 24 actually being sold. Revenue from these sales totaled \$2,580,308.38 from 902 acres.

Unit Mission

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

State Forest Acres by Age-Class



The forest age distribution across the 15 State Forests is skewed to the older age-classes. Only about 11,494 acres (6.8%) of the entire State Forest system is in early succession (less than 20 years of age), whereas nearly 98,000 acres (60.4%) are in age-classes at or above rotation age (60 years for pine, 80 years for hardwood).



Reforestation

Seedling Nursery

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

The Division of Forestry's seedling nursery, located in Delano, TN, produces forest seedlings that are available for sale to landowners in Tennessee. These seedlings are adapted to growing conditions found in Tennessee 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 each year to ensure the long-term productivity of the nursery soil.

Objectives for Year

- Increase seedling sales and accompanying sales revenue by 25% over FY2009 levels.
- Complete and refine new web-based nursery management/seedling sales software.
- Facilitate planning for new seedling cold storage building at Chickasaw SF.

Major accomplishments for July 1, 2009 – June 30, 2010

- Increased revenue from seedling sales by 22%.
- Signed a Memorandum of Understanding with the Tennessee Wildlife Resources Agency to produce 203,000 hardwood seedlings for their use at various locations in the state.
- Produced 4.4 million pine seedlings and 1.3 million hardwood seedlings for sale and distribution during the 2009-2010 field planting season (see sidebar).
- Continued to refine and develop the new web-based seedling sales computer program. Changes were made to reflect the new organizational structure of the Division of Forestry and additional improvements were made to several reports.
- Replaced the aging shingle roof with a new metal roof on the nursery office building in Delano with assistance from East Tennessee District and Cumberland District personnel. Also re-stained the siding of the nursery office.
- Attained a customer satisfaction rating of greater than 90%, based on responses from our customer survey.

Unit Mission

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

Planting Seedlings in Riparian Zones

Planting trees in riparian zones offers several benefits including protecting water quality and attracting wildlife. Many of the species grown at the Division's nursery are well suited for planting in riparian zones.

Inspection of tree plantings by division personnel are routinely done to ensure proper planting and survival of seedlings. This reforestation planting of a field that borders a stream in Cannon County is monitored for health and survival. Trees were planted in 2008 and included baldcypress, green ash, swamp chestnut oak, water oak, and willow oak.





Reforestation

Tree Improvement

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

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

Objectives for Year

- Continue development of Barclay tract into new West Tennessee Tree Improvement Center.
- Continue to refine preliminary work plan for new West Tennessee Tree Improvement Center.
- Facilitate in-house production of 2nd generation loblolly pine seed and Elite Sawtimber seed source.
- Develop succession plan for critical tree improvement positions.
- Raise seedlings and graft all scion material needed for various orchards around the state. Top priority will be on material needed for installation of new orchards at the West Tennessee Tree Improvement Center.

Major accomplishments for July 1, 2009 – June 30, 2010

- Harvested over 2,000 bushels of loblolly pine cones from three seed orchards at the Pinson Reforestation Complex which yielded 2,485 pounds of improved seed. The 2nd generation orchard and the 3rd cycle orchard were harvested for the first time.
- Harvested 640 bushels of white pine cones from seed orchards at the East Tennessee Nursery, Lone Mountain State Forest and Scott State Forest which yielded 314 pounds of seed.
- Harvested 4,400 pounds of improved yellow-poplar seed from the orchard at Ames Plantation.
- Harvested improved black walnut seed and saw tooth oak acorns from seed orchards at the East Tennessee Nursery and the Pinson Reforestation Complex.
- Cleared brush from over 90% of the non-wooded area at the West Tennessee Tree Improvement Center. Planted seedlings to begin establishment of a shortleaf pine and a black walnut seed orchard on the property. Also planted a loblolly pine progeny test (see picture). Transferred the previous owner's CRP contract to the state. Converted proposed land use map to fGIS format and identified locations for future construction of buildings.
- Planted all trees scheduled for establishment in the 3rd cycle loblolly pine orchard at the Pinson Reforestation Complex.
- Produced containerized seedlings to establish loblolly pine progeny tests and add to the shortleaf pine and black walnut seed orchards at the new West Tennessee Tree Improvement Center.
- Grafted all loblolly, shortleaf and white pine scion material needed to produce trees for various seed orchards.
- Fertilized all seed orchards in need of fertilization based on recommendations from North Carolina State University.



Loblolly pine seedling planted for progeny test at new West Tennessee Tree Improvement Center



Forest Data and Technology

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

Objectives for Year

- Implement web-based online burn permit system.
- Re-design and implement water quality database.
- Develop Insect and Disease Occurrence Database.
- Purchase Microwave Paths for 11 critical links.

Major accomplishments for July 1, 2009 – June 30, 2010

- Purchased 110 UHF vehicle repeaters.
- Purchased 16 tower repeaters.
- Activated 100 + wireless internet access cards for field personnel.
- Developed Online Photo Directory for TDF staff.
- Developed Disconnected MS Access Database for collecting field information.

Unit Mission

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



Forest Data and Technology

Geographic Information Systems

Mission: Analyze and present tabular information in visual (map) form or extract data from imagery and present it in tabular form that assists in making resource decisions.

The Geographic Information Systems (GIS) section supports program managers decision making by analyzing data and presenting it in map or tabular form.

Objectives for Year

- Support Division projects - Gypsy Moth, Hemlock Woolly Adelgid, Sudden Oak Death, Emerald Ash Borer, Forest Legacy, Statewide Forest Resource Assessment, Water Quality, Urban Forestry.
- Direct and conduct training of seasonal personnel in the use of new GPS technology.

Major accomplishments for July 1, 2009 – June 30, 2010

Gypsy Moth

- Managed the property inventory of global positioning system (GPS) units issued annually to the seasonal and full-time employees, and laptop computers issued annually to the lead trappers used in gypsy moth trapping.
- Conducted technology training and refresher training of 38 full-time and 6 seasonal employees in the use of GPS units and/or laptop computers and downloading software in the execution of the gypsy moth trapping program.
- Downloaded GPS waypoint (trap placement) data from 23 full-time employees .
- Provided support to lead trappers for assigned GPS units, laptop computers and associated software used in gypsy moth trapping.
- Received and processed 218 GPS data downloads from full-time employees and seasonal employees.
- Collected, imported, converted, inspected, modified, corrected, organized and archived more than 13,290 trap placement data records from field employees in the produce maps.
- Produced small scale delimiting grid maps for gypsy moth trap placement.
- Produced large scale (statewide) gypsy moth trap placement maps.
- Produced large scale (statewide and district) gypsy moth catch location maps.
- Produced small scale maps of gypsy moth proposed and final eradication and control projects.
- Produced maps illustrating the current statewide status of gypsy moth occurrences and infestations over the past year.
- Produced maps illustrating the spread of gypsy moth regionally over the past year.

Hemlock Woolly Adelgid

- Produced pest occurrence and spread maps from current field survey data.
- Conducted analysis towards identifying eastern hemlock occurrence using color-infrared aerial imagery.

Sudden Oak Death

- Produced pest occurrence maps from field survey data.

Forest Legacy

- Produced map of various Forest Legacy projects.
- Produced maps for boundary survey bid requests.

State Assessment Project

- Produced watershed maps for use in this project.
- Aided in training of personnel in efficient use of GIS software.

Water Quality

- Produced quarterly maps of water quality courtesy visits.



Forest Data and Technology

Forest Inventory Analysis

Mission: Characterize changes in Tennessee's forest resource through data collection and analysis

The Division works with the USDA Forest Service to produce periodic reports of the condition and extent of Tennessee's forest. Some 4,600 plots statewide are accurately measured at regular intervals to provide the data needed, with 20% of the plots scheduled for measurement each year. Information from this data is used to qualify and quantify Tennessee's forest resource.

Objectives for Year

- Measure 924 plots.
- Train and certify crews.

Major accomplishments for July 1, 2009 – June 30, 2010

- Measured 920 Forest Inventory plots.
- Measured 57 Forest Health Monitoring plots.
- Measured 54 Urban Forest Health Monitoring plots.
- Measured 40 Ozone Monitoring plots.
- Trained 7 Foresters for updates on data acquisition system.
- Trained 1 Forester at the Tennessee-Kentucky Wildland Fire Academy.

Radio Communications

Objectives for Year

- Begin narrow band conversion for all Districts.
- Secure funding and contract for critical microwave paths.
- Implement quarterly inspection of all radio sites.
- Establish agreements and attend monthly meetings with Tennessee Valley Regional System in Chattanooga.

Major accomplishments for July 1, 2009 – June 30, 2010

- Hired Radio Technician for East TN District.
- Installed vehicle repeaters in East TN & Cumberland District.
- Moved Lantana Repeater site to Pevine.
- Replaced Antenna and line at English Mt., Standing Stone, Short Mt. & Macey Hill repeater sites.
- Replaced Antenna and line at Sharps Ridge and Knoxville Office sites.



Forest Business

The goal of the Forest Businesses Unit is to improve Tennessee's forest resources by facilitating linkages between sellers and buyers and promoting value-adding industry. The Division's Forest Businesses program provides descriptive data about, and for, the forest products industry in Tennessee, technical assistance to forest products businesses or forest landowners, assistance in recruiting or establishment of forest products businesses in the state, and analysis to aid understanding of the forest resource.

Objectives for Year

- Publish the Forest Products Bulletin quarterly and the Forest Industry Directory.
- Provide export marketing help for hardwood lumber producers.
- Assist Tennessee companies and citizens with forest products advice.
- Assist with the Biomass Crop Assistance Program (BCAP) in Tennessee.

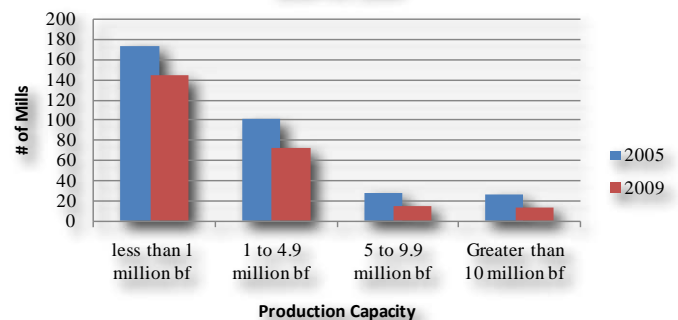
Accomplishments for July 1, 2009 – June 30, 2010

- Completed the 2009 Tennessee Industry Survey of all Primary facilities in the state through a coordinated effort of forestry field personnel (see chart).
- Published the 2009 Tennessee Industry Directory.
- Published the Tennessee Forest Products Bulletin Quarterly.
- Participated in Hardwood States Export Group (HSEG) to maximize our export help through the group's efforts and attendance at hardwood lumber export trade shows; attended the Vietnamwood show.
- Recruited four Tennessee companies to participate in the Vietnamwood 2009 Trade show.
- Wrote plain language instructions for and assisted forest industry participants with the Biomass Crop Assistance Program.
- Wrote the Forest Industry in Tennessee Certification Survey for the Tennessee Forestry Association.
- Advised Tennessee citizens with their forest products questions and needs for help with timber sales, logging, forest inventory and other inquiries.
- Participated as a member of the Southern Group of State Foresters Utilization and Marketing Task Force and Marketing Publication committee.
- Authored "Status of the Forest Industry in Tennessee" for Tennessee Forestry Association, and assisted with the TFA President's SAF presentation.

Unit Mission

The mission of the Forest Business Unit is to provide support for the Tennessee forest industry and forest-based businesses, and to provide data to characterize Tennessee forest products.

**Hardwood Sawmills in TN by Size
2005 vs. 2009**



The forest products industry in Tennessee has been hit hard by the very poor US housing market the past few years. This reduction in mills affects all associated with forestry in the state - from landowners to the secondary processors of our hardwood lumber.



Environmental Affairs and Public Outreach

The Environmental Affairs and Public Outreach Unit seeks creative ways to provide outreach to the various publics in the State of Tennessee. Additionally, the unit seeks to foster greater collaboration with environmental advocacy groups to produce a climate for problem solving which will help reduce unnecessary conflict in various arenas with favorable outcomes for all.

Objectives for Year

- Initiate/Develop strategy for work needed on emerging issues.
- Engage and inform environmental/conservation organizations on Division activities.
- Develop and implement training for staff on land use planning.

Major accomplishments for July 1, 2009 – June 30, 2010

- Participated in cooperative planning efforts with environmental/conservation organizations including Sustainable Tennessee, Parks and Greenways Foundation, National Network of Forest Practitioners, and The Nature Conservancy.
- Facilitated group discussions on emerging forestry issues to Division personnel.
- Conducted workshop on conservation issues to limited resource/underserved landowner groups.
- Maintained partnership with Tennessee State University's extension program to underserved landowners.
- Presented "Realizing the economic value of forested landscape in a viewshed" paper at Emerging Issues 3: Along Urban-Rural Interfaces conference in Atlanta.
- Initiated land use planning role strategy implementation to select Division personnel. This initiative aims to position our professional staff whose areas are densely populated to become more involved in county and local land use decision making.

Unit Mission

The mission of the Environmental Affairs & Public Outreach Unit is to communicate clearly and accurately to the Division's publics forestry information necessary to accomplish the Division's mission, and to optimize in-house communications. The Environmental Affairs & Public Outreach Unit also administers the Division's Information and Education program.



Environmental Affairs and Public Outreach

Information and Education

Mission: To produce educational materials and provide forest resource information through a variety of media, and provide support to all Division programs in the dissemination of information to our publics.

The information and education program is essential in helping the general public understand forestry as a discipline and the role that the Division plays in maintaining a healthy forest resource while providing a stream of essential ecological benefits to society. The program also helps to foster communication within the Division, a critical function of a healthy organization.

Objectives for Year

- Raise awareness about important and timely forest resource issues.
- Utilize technological capacity to produce informational products in-house to more effectively and efficiently raise awareness of division activity and program diversity.
- Inform division personnel on statewide division activity and current forest resource issues.
- Promote Forestry Camp.

Major accomplishments for July 1, 2009 – June 30, 2010

- Held 3,274 educational outreach activities reaching over 307,169 children and adults. This represents a 120% increase in the number of activities and a 50% increase in the number of children and adults reached over last year. The increases were the result of greater fire prevention efforts.
- Produced 12 news releases pertaining to relevant topics including: wildfire prevention, urban forestry grants, forest stewardship plan, employee awards, Arbor Day, woods arson arrests.
- Gave radio and television interviews addressing Division programs.
- Referenced in 528 newspaper articles.
- Produced 2 newsletters for Division personnel.
- Maintained fire prevention website – BurnSafeTN.org. The site had 433,248 hits.
- Facilitated 61st annual Forest Camp for 48 Future Farmers of America high school students.
- Produced 3 informational print products (Core Business brochure, Tennessee Tree Line USA Handbook, and Cooperating Consultant Forester Program directory) and 1 book (Tennessee Forest Resource Assessment and Strategy) (see pictures). The informational print products utilized the marketing strategy created in FY2009 to better raise awareness of Division activity and program diversity. The strategy seeks to more effectively establish a consistent, branded style necessary to maintain a recognizable public image.
- Maintained YouTube channel – www.YouTube.com/TNDivForestry - showcasing Division stock video and playlists of other organization's or individual's conservation education oriented video for global internet audience. The channel had 2,930 video views. The most viewed video was "Using Handtools to Suppress Tennessee Forest Fires". It was added December 2009 and represented 28% of total views.



Print products produced in-house included the Division's Core Business brochure, Tennessee Tree Line USA Handbook, Cooperating Consultant Forester Program directory, and the Tennessee Forest Resource Assessment and Strategy



Safety and Training

The Division stresses safety first in all activities and program areas by providing the tools and training necessary to enable employees to work effectively and safely. In addition, physical fitness standards help the Division maintain a physically capable and healthier work force.

Objectives for Year

- Conduct work capacity test.
- Coordinate ongoing training program.
- Maintain training database.
- Assess training needs for each job classification.
- Maintain safety records.
- Coordinate safety inspections of facilities.
- Provide safety information (updates, messages).
- Investigate accidents/unsafe work practices.
- Administer Title VI Program.

Major accomplishments for July 1, 2009 – June 30, 2010

- Administered the work capacity test to assess fitness among Division firefighters (see picture).
- Conducted the Division’s annual wildfire training academy for new employees.
- Facilitated Forest Management Training for National Resource Conservation Service (NRCS) staff.
- Made materials available for the Division’s annual wildfire safety refresher.
- Implemented new web-based training database (IQSweb).
- Coordinated fire prevention training for foresters and forest technicians.
- Facilitated National Incident Management System (NIMS) Training.
- Participated in the eighth annual Tennessee Kentucky Wildland Fire Academy, which offers advanced wildfire training for Division firefighters (see picture).
- Trained firefighters in the use of fire operations in the wildland-urban interface.
- Assisted with Insect and Disease Training for employees.
- Conducted Citation (Badge) Training for employees.
- Coordinated First Aid/CPR Training.
- Coordinated Defensive Driving Training.
- Administered the Division’s Title VI Program.
- Maintained the Division’s Pesticide Certification Program/Records.
- Compiled and submitted OSHA reports.
- Chaired Safety/Training Committee meetings.

Unit Mission

The mission of the Safety and Training Program is to protect the lives and well-being of Division employees and the public by reducing or eliminating unsafe acts and/or conditions that may result in personal injury or loss of life and to coordinate training opportunities that will enhance employee career development and the delivery of forestry services to our constituents.



Division firefighters take work capacity test.



Prescribed burn training at Tennessee Kentucky Wildland Fire Academy



Administration

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

Objectives for Year

- Sell excess properties to generate funds for new facilities
- Purchase priority facilities
- Monitor and manage spending processes
- Develop Tennessee Resource Assessment and Strategy
- Conduct Annual Work Planning process

Major accomplishments for July 1, 2009 – June 30, 2010

- Reverted three fire tower properties to appropriate owners.
- Completed the process of purchasing property in Chester County for new Reforestation headquarters and seed orchards.
- Completed the process of purchasing property in Bradley County for forestry work center.
- Placed five real estate properties on the market at the respective appraised values:

Flagpole residence and two acres in Williamson County.....	\$ 85,000
Cross Plains Fire Tower property in Robertson County.....	\$ 49,000
Nolensville unimproved tower site in Williamson County.....	\$ 8,000
Abandoned District Headquarters office in Chattanooga.....	\$710,000
Abandoned building and 8.5 acres in Cookeville.....	\$800,000
Total	\$1,651,000
- Sold the Flagpole property in Williamson County for \$75,000.
- Completed Tennessee Forest Resource Assessment and Strategy.
- Developed annual work plan and monitored Performance Measures.
- Applied for and obtained \$3.45 million in federal grants for forestry programs through US Forest Service’s State & Private Forestry section.

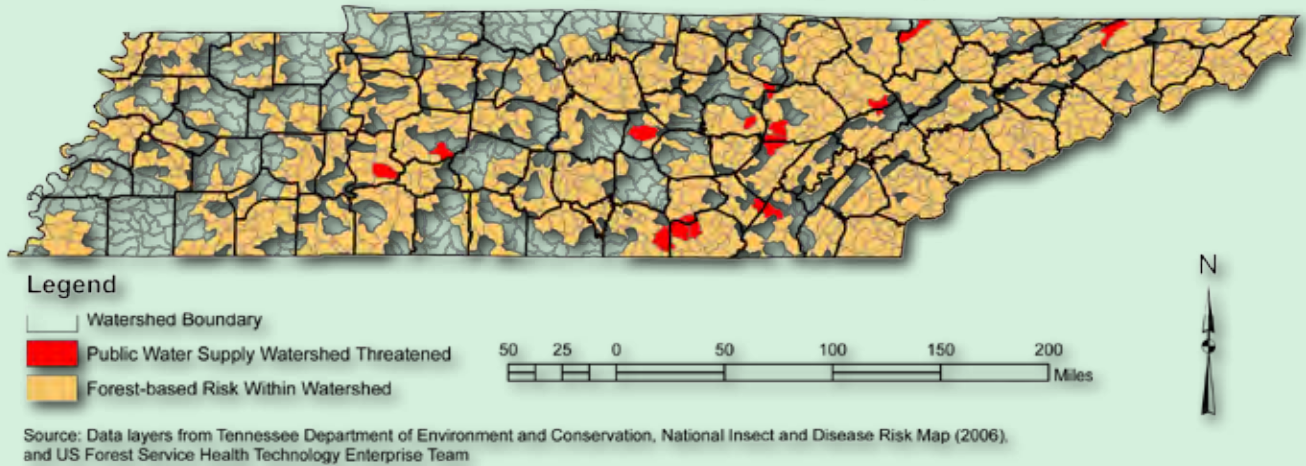
Unit Mission

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



...continued from page 1

Forest Stewardship Priority Areas Composite Map



forest health risks, in need of riparian forest buffers, or in need of protection of a public water supply watershed. These watersheds will be the focus of outreach to advance stewardship activities geared toward mitigating the threats or issues identified. The highest priority displayed on this map is the public water supply watersheds, which are shown in red. These watersheds are greater than 50 percent forested, face significant threat to development and provide most of the public water supply for at least one water intake. Therefore, they depend upon a healthy forest condition for quality water yield. For this reason they will be the focus of active outreach for stewardship planning and application of measures to sustain their yield of quality water.

Forestry Commission Duties and Functions

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

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

The State of Tennessee policy of non-discrimination

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

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