Investment in State's Cooperative Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2019 Final</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>$5,657,985</td>
</tr>
<tr>
<td>Forest Legacy</td>
<td>$1,800,000</td>
</tr>
<tr>
<td>Forest Stewardship</td>
<td>$271,432</td>
</tr>
<tr>
<td>Landscape Scale Restoration</td>
<td>$380,000</td>
</tr>
<tr>
<td>State Fire Assistance</td>
<td>$1,408,995</td>
</tr>
<tr>
<td>Urban and Community Forestry</td>
<td>$413,985</td>
</tr>
<tr>
<td>Volunteer Fire Assistance</td>
<td>$445,031</td>
</tr>
<tr>
<td>Total</td>
<td>$10,377,428</td>
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NOTE: This funding is for all entities within the state, not just the State Forester's office.

The N.C. Forest Service continues to protect, manage and promote forest resources for the citizens of North Carolina through the use of proactive measures that include restoring fire-adapted communities and reducing the risk of wildfire; identifying, managing and reducing threats to forest and ecosystem health; and, conserving working forestland.

Program Goals

- The cooperative programs are administered and implemented through a partnership between the State of North Carolina, the USDA Forest Service as well as 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 rural and urban forests and related economies, as well as to protect the forests and citizens of the state. These programs maximize cost effectiveness in program delivery and increase forestland value and sustainability through partnerships, doing so in a voluntary and nonregulatory manner.

Key Issues

- Promotion of the expansion of forest products markets both domestically and internationally. A key component of this effort is timely Forest Inventory and Analysis (FIA) data. This effort should be maintained at current levels or enhanced to provide the most current information. Another key component is the education of landowners to the numerous benefits of forest certification.

- Providing technical assistance to a changing woodland owner demographic to keep working forests working.

- Continued development of ecosystem markets in collaboration with state agencies and nongovernmental organizations (NGOs), as well as federal partners such as the Department of Defense.

- The N.C. Forest Service and our military partners have a mutually beneficial relationship. The agency's goals of "keeping working forests working" and forest conservation closely align with efforts to maintain our military's training capacity. To reach these goals, both groups must continue to effectively reach out to private woodland owners.

- Population growth, land use change and development patterns continue to complicate land management and natural resource conservation efforts.

- Continued outreach to an urbanizing and growing population about the multiple benefits that forests provide to North Carolina is needed.
• Providing technical assistance, education and outreach to communities to enhance the benefits and sustainable management of urban forests.
• Many of the thousands of communities across the state face wildland/urban interface (WUI) hazards. Efforts to prevent and mitigate hazards and raise awareness are ongoing and need to be continued.
• Continued development and use of technology in the planning, response and reporting of wildfire risk and the impacts to timber, air, water and wildlife resources.

Forest Facts and Accomplishments

<table>
<thead>
<tr>
<th>Selected Facts</th>
<th>Value</th>
<th>FY 2019 Accomplishments</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>9,535,483</td>
<td>Landowners Receiving Educational or</td>
<td>23,081</td>
</tr>
<tr>
<td>Acres of Forest Land</td>
<td>18,758,506</td>
<td>Technical Assistance</td>
<td></td>
</tr>
<tr>
<td>Acres of Nonindustrial Private Forest Land</td>
<td>13,969,000</td>
<td>Acres Covered by New or Revised Forest Stewardship Plans</td>
<td>3,961</td>
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<td>Number of NIPF Landowners</td>
<td>525,000</td>
<td>Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans</td>
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<tr>
<td>Acres of Federal Land Under State Fire Protection</td>
<td>1,900,000</td>
<td>Volunteer Fire Departments Assisted</td>
<td>250</td>
</tr>
<tr>
<td>Acres of Private Land Under State Fire Protection</td>
<td>15,601,438</td>
<td>State Fire Communities Assisted</td>
<td>757</td>
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<tr>
<td>Number of Rural Fire Departments</td>
<td>1,325</td>
<td>Coop Forest Health Acres Protected</td>
<td>5,378</td>
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<tr>
<td>Cities and Towns</td>
<td>553</td>
<td>Forest Legacy Project Acquisitions</td>
<td>62</td>
</tr>
<tr>
<td>Forest Based Employment</td>
<td>71,600</td>
<td>Communities Provided Urban Forestry Program Assistance</td>
<td>118</td>
</tr>
<tr>
<td>Economic Impact of Forestry (by rank)</td>
<td>1</td>
<td>Population Living in Communities</td>
<td>4,157,231</td>
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<tr>
<td>State Forestry Budget (All Sources)</td>
<td>65,802,285</td>
<td>Provided Urban Forestry Program Assistance</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Urban Forestry Volunteer Assistance</td>
<td>7,495</td>
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Program Highlights

Cooperative Fire Protection
Firewise USA® continues to be a very strong program in North Carolina with 33 active communities in the state. N.C. Forest Service personnel provided information at more than 300 outreach opportunities, including attendance at home and garden shows, conferences and local festivals. Numerous Firewise meetings were held across North Carolina during FY19, covering topics such as evacuation planning and hazard mitigation projects for homeowner associations and fire departments. In FY19, eight communities received Firewise USA® grants to do mitigation work, totaling $54,443 while matching another $66,921. The Firewise USA® Program also receives promotional assistance through four Resource Conservation and Development Councils (RC&D) across Western North Carolina, which receive grant money through the U.S. Forest Service to promote mitigation activities in North Carolina.

The Federal Excess Personal Property Program assists North Carolina fire departments in acquiring and placing fire equipment in rural communities throughout the state. The N.C. Forest Service administers Volunteer Fire Assistance Program funds to support the fire prevention and protection efforts of rural community fire departments that support firefighting resources throughout North Carolina, including the development of Community Wildfire Protection Plans (CWPPs). There are currently 1,670 approved CWPPs at the fire district level in the state. Working with Federal partners, the N.C. Forest Service Fire Environment Program continues to be a leader in fire research, improving the safety of firefighters and the public through science-based applications.

Economic Action
The N.C. Forest Service continues to provide support to North Carolina’s $32.8 billion forest products industry while also increasing efforts to attract new industry to the state. North Carolina’s forest products manufacturing industry supports about 150,000 full and part time jobs in the state with a payroll of $8.2 billion. International markets play a vital role for the forest products industry as North Carolina benefits from export activity with 120 nations, representing approximately $1.78 billion in trade value. The forest
sector in North Carolina contributes about $258.5 million to state and local taxes and $848.7 million to federal taxes.

**Engaging Women Woodland Owners**

With 60% of private forestland in NC being owned jointly or individually by women, women are influencing the decision making for forest management. In 2019, several outreach efforts brought together partners across North Carolina, including the N.C. Forest Service, to offer educational opportunities geared toward women landowners. These programs vary from a local county forestry group and skill-specific chainsaw safety training to a formal initiative known as ForestHER NC. In total, N.C. Forest Service personnel supported five events, reaching 261 attendees from three states in FY 2019. Another 15+ events are planned for FY20.

**Forest Health Protection**

The N.C. Forest Service is responsible for assisting forest landowners in the detection and control of destructive forest insects and diseases. Services are provided to landowners through district and county organizations with forest health staff providing training and professional/technical expertise in identification, biology and control of destructive insect and disease epidemics. The program has been increasingly challenged with threats from non-native invasive forest pests. Established non-native invasive forest pests in North Carolina include balsam and hemlock woolly adelgids, beech bark disease, dogwood anthracnose, butternut canker, Phytophthora root rot and gypsy moth, and more recently emerald ash borer, redbay ambrosia beetle/laurel wilt and thousand cankers disease. Several non-native invasive pests found elsewhere in the U.S.--including Asian longhorn beetle, spotted lanternfly and sudden oak death--are also capable of impacting our forests in the future. Forest Health staff, in collaboration with other state and federal agencies and universities, monitor the movement of these pests through trappings and surveys. Staff then alert and train N.C. Forest Service personnel, forestry, agricultural and environmental interests, and landowners to recognize and deal with these pests. In FY19, 18.7 million acres were surveyed for insects, diseases and storm damage by N.C. Forest Service personnel. Nearly 55,000 hemlocks were treated on state and private lands for control of hemlock woolly adelgid.

**Forest Legacy**

There are currently 10 projects involving 18 tracts in the North Carolina Forest Legacy Program. The tracts include 11,526 acres. Of these acres, 4,260 acres are owned in fee and 7,265 acres fall under a "working forest conservation easement." An additional project, Balsam Range, in Haywood County has received funding through the program and efforts are being made to close in FY2020.

**Forest Stewardship**

North Carolina has 179,510 acres in forestland currently covered by the North Carolina Forest Stewardship Program. Priority forest resource areas, as identified by the North Carolina Forest Action Plan, are comprised of 106,236 acres. FY19 monitoring data indicate that these Forest Stewardship Plans are being implemented on at least 2,874 acres.

The Forest Stewardship Program added 70 new and revised Forest Stewardship Plans, addressing multiple resource management objectives on 3,961 acres in FY19. These plans addressed more than 1,726 acres that are considered priority forest resource areas according to the North Carolina Forest Action Plan.

The N.C. Forest Stewardship Program held its annual Forest Stewardship Landowner Recognition Workshop Aug. 3, 2019. The program recognized a landowner from each of the three North Carolina geographic regions as Outstanding Woodland Stewards (OWLS) for doing exemplary work as they implemented their Forest Stewardship plan. Additionally, to foster the partnerships that help drive the program at the local level, Orange Water and Sewer Authority (OWASA) was recognized as an OWLS for promoting the principles of the Forest Stewardship Program.

The N.C. Forest Stewardship Program and N.C. Tree Farm Program continue to work together, sharing data and meetings that will ideally make Tree Farm's third-party forest certification available to Forest Stewardship Program participants. A secondary result is the leveraging of each program's strengths related to landowner assistance and outreach.
Landowner Assistance

Through the N.C. Forest Service Information, Education and Outreach Program, rangers and foresters statewide have provided valuable information to forest landowners and the public related to N.C. Forest Service programs, services and forestry-related issues. Personnel with the N.C. Forest Service participated in more than 7,619 outreach events, reaching more than 1 million farmers, forest landowners and the public. These events include landowner workshops, natural resource conferences, media interviews, newspaper and magazine articles, a variety of advertising opportunities, state and county fairs, as well as other community connections.

Longleaf Pine Initiative

The Longleaf Pine Initiative within the N.C. Forest Service continues to prioritize landowner engagement and natural resource professional training in longleaf pine conservation and restoration. In 2019, the N.C. Forest Service collaborated with partners to offer six longleaf workshops with 51 private landowners and 157 natural resource professionals in attendance. Personnel supported 12 additional community and educational events, reaching more than 600 landowners. As sponsors and committee members of the "North Carolina Longleaf Honor Roll" landowner recognition program, the N.C. Forest Service helped recognize three landowners for their outstanding efforts to restore longleaf. Financial assistance through the Forest Development Program and the Florence Restoration Fund aided establishment of 1,201 acres of longleaf on private lands in 2019.

Military Partnerships and Working Lands

Building upon the lessons learned from Forest Opportunities for Resource Conservation and Environmental Security (FORCES), North Carolina continues to support our military partners. Through the Eastern NC Sentinel Landscapes Partnership, we recognized 2,285 landowners for their commitment to continued management of forest within the military area of interest. In this area, where military interest and longleaf conservation overlap significantly, we have focused on increasing prescribed burning capacity by supporting Prescribed Burning Associations (PBAs). Through the Working Lands program, we have increased the number of NC Certified Burner Course offerings, made prescribed fire tools available for use, and hired two Prescribed Fire Education Specialists to provide one-on-one mentoring support for private landowners within this unique landscape.

Renewable Energy

North Carolina remains heavily engaged in utility-scale wood pellet production with operations based in the Eastern portion of our state, including four facilities currently producing wood pellets for electricity generation by Western European power companies. A deep-water marine terminal at the Port of Wilmington facilitates wood pellet transport to European ports. Additionally, numerous combined heat and power (CHP) projects using woody biomass as a primary feedstock source are currently in operation across North Carolina. North Carolina is at the center of local and international debates surrounding the utilization of wood pellets as a renewable energy source to meet EU obligations under the Paris climate agreement.

Shared Stewardship

In FY19, the N.C. Forest Service signed a Shared Stewardship agreement with the USDA Forest Service and Natural Resources Conservation Service, the N.C. Department of Agriculture and Consumer Services, and the N.C. Wildlife Resources Commission. The agreement provides a framework for federal and state agencies to collaborate better, focus on accomplishing mutual goals, further common interests, and effectively respond to the increasing ecological challenges and natural resource concerns in North Carolina. Through this Shared Stewardship agreement, the N.C. Forest Service is committed to a collective effort that will produce results that exceed what any one agency or organization could accomplish alone.

Urban and Community Forestry

The Urban & Community Forestry Program continued its charge to promote the health and sustainable management of urban forests in North Carolina by offering grants, technical assistance, education opportunities and program support to municipalities, organizations, agencies, industries and private landowners. More than $81K in urban and community forestry cost-share grants were awarded to 8 communities or organizations to assist with funding projects that enhance their urban forest management program or that provide education and training. Support and assistance were also provided to the North
Carolina Urban Forestry Council in delivering 12 urban forestry outreach and educational programs serving 603 attendees and engaging over 3,000 hours of volunteer time. Direct urban forestry technical assistance was provided to 131 communities by N.C. Forest Service staff, which includes 20 International Society of Arboriculture Certified Arborists. The number of communities awarded Tree City USA was 87 in FY 2019, an increase of one community over FY2018.

**Water Resources**

During FY19, the agency conducted 3,212 initial water quality compliance inspections on timber harvests and an additional 4,212 follow-up inspections. In addition, we completed 73 BMP monitoring site survey assessments in total, following a protocol established across the Southern Region for determining and reporting BMP performance. This effort is supported by a FY18 LSR Grant to evaluate erosion potential at stream crossings across varying degrees of BMP use. We continued to proactively support stream crossing BMPs by loaning portable bridgemats to loggers. For FY19, agency bridgemats were used on 20 harvests, for 26 crossings, to access an estimated 660 acres of timber. Training, education and outreach for the year included 76 new ProLoggers, 130 college students, 290 forestry practitioners, and 253 other natural resource professionals. A notable water resource restoration was conducted, resulting in approximately 2,450 feet of the Linville River and nearly 1,000 feet of its tributary restored to improve aquatic habitat and riparian forest conditions, as well as to reduce potential flood impacts. This large-scale restoration was the result of a multiyear planning effort in cooperation with interagency and NGO partners. The NCFS Forest Water Quality Program is funded through leveraged sourcing of state appropriations coupled with a vital annual allocation of federally derived funds via the Nonpoint Source 319-Grant Program, supplemented by occasional contributions from S&PF funds and/or LSR Grant awards.

**Contact Information**

**North Carolina Forest Service**

Scott Bissette  
Assistant Commissioner  
1616 Mail Service Center  
Raleigh, NC 27699-1616  
919-857-4844  
Scott.Bissette@ncagr.gov

**US Forest Service Southern Region**

Ken Arney  
Deputy Regional Forester  
USDA Forest Service  
1720 Peachtree Street, Suite 760S  
Atlanta, GA 30309  
404-347-4178  
ken.arney@usda.gov