



State and Private Forestry Fact Sheet North Carolina 2022



Investment in State's Cooperative Programs

Program	FY 2021 Final
Community Forestry and Open Space	\$0
Cooperative Lands - Forest Health Management	\$5,038,427
Forest Legacy	\$35,000
Forest Stewardship	\$213,561
Landscape Scale Restoration	\$30,000
State Fire Assistance	\$1,465,544
Urban and Community Forestry	\$534,244
Volunteer Fire Assistance	\$546,510
Total	\$7,863,286

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 creating fire adapted communities and restoring fire adapted ecosystems; reducing the risk of wildfire; identifying, managing and reducing threats to forest and ecosystem health; enhancing the benefits and sustainable management of urban forests; conserving working forestland; and, sustaining the economic, environmental and social benefits of North Carolina's forests.

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. Emphasis focuses on timber and other forest products, wildlife, water resources, rural economies and conservation practices.

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.
- With 13.5 million acres, North Carolina leads the nation in wildland urban interface (WUI). Many of the thousands of communities across the state face 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.
- Fleet management continues to be an agency priority and is critical to maintaining successful delivery of programs and services in North Carolina.

Forest Facts and Accomplishments

Selected Facts	Value	FY 2021 Accomplishments	Value
Population	9,535,483	Landowners Receiving Educational or Technical Assistance	17,828
Acres of Forest Land	18,750,217	Acres Covered by New or Revised Forest Stewardship Plans	22,093
Acres of Nonindustrial Private Forest Land	13,969,000	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	9,362
Number of NIPF Landowners	525,000	Volunteer Fire Departments Assisted	250
Acres of Federal Land Under State Fire Protection	1,900,000	State Fire Communities Assisted	346
Acres of Private Land Under State Fire Protection	15,601,438	Coop Forest Health Acres Protected	6,605
Number of Rural Fire Departments	1,325	Forest Legacy Project Acquisitions	710
Cities and Towns	553	Communities Provided Urban Forestry Program Assistance	132
Forest Based Employment	73,600	Population Living in Communities Provided Urban Forestry Program Assistance	4,129,688
Economic Impact of Forestry (by rank)	1	Urban Forestry Volunteer Assistance	22,427
State Forestry Budget (All Sources)	65,802,285		

Program Highlights

Cooperative Fire Protection

Firewise USA® continues to be a strong program in North Carolina with 42 active communities in the state. The Firewise USA® program also receives promotional assistance through four Resource Conservation and Development (RC&D) Councils across Western North Carolina, which receive grant money through the U.S. Forest Service to promote mitigation activities in North Carolina. N.C. Forest Service wildfire mitigation staff have given presentations to 13 different groups comprised of private homeowners, the public and other fire service officials. Highlights include various presentations on Firewise USA®, community wildfire protection planning, and wildfire risk reduction. In 2021, nine assessments have been completed using the Community Assessor for the South (CAftS).

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 899 approved CWPPs at the fire district level in the state, and 94 are in various stages of development. N.C. Forest Service wildfire mitigation staff continue to modernize documentation of CWPP data and create tools of engagement that better illustrate collective wildfire risk. 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 \$34.9 billion forest products industry while also increasing efforts to attract new industry to the state. North Carolina's forest products manufacturing industry supports about 148,000 full- and part-time jobs in the state with a payroll of \$8.4 billion. International markets play a vital role for the forest products industry as North Carolina benefits from export activity with 120 nations, representing approximately \$1.41 billion in trade value. The forest sector in North Carolina contributes about \$266.8 million to state and local taxes and \$874.5 million to federal taxes.

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 at the county and district levels with NCFS 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 by threats from nonnative invasive forest pests. Established nonnative 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 nonnative invasive pests found elsewhere in the U.S. -- including Asian longhorned 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.

Forest Legacy

There are currently 10 projects involving 18 tracts in the North Carolina Forest Legacy program. The tracts include 16,374 acres. Of these acres, 4,970 acres are owned in fee, and 11,404 acres fall under a "working forest conservation easement." North Carolina's Forest Legacy program added Balsam Range Phase I, 710 acres, to its fee-owned acreage and received the Walthour-Moss "working forest conservation easement" donation of 4,000 acres. Forest Legacy funding in the amount of \$5 million for Dark Ridge has been received and will add 3,804 acres to North Carolina's "working forest conservation easement." Dark Ridge will expand the existing Forest Legacy project acreage along the Blue Ridge Parkway and increase protection of the viewshed for the Mountains to Sea Trail.

Forest Stewardship

North Carolina has 143,054 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 55,828 acres. FY21 monitoring data indicate that these Forest Stewardship plans are being implemented on at least 4,087 acres. The Forest Stewardship program experienced its first year under Stewardship Modernization with success and N.C. Forest Service field staff adapted well to the Survey123 monitoring process.

In FY21, the Forest Stewardship program added 140 new and revised Forest Stewardship plans, addressing multiple resource management objectives on 22,093 acres. According to the North Carolina Forest Action Plan, these stewardship plans addressed more than 9,362 acres that are considered priority forest resource areas.

The N.C. Forest Stewardship and N.C. Tree Farm programs continue to work together during FY21, sharing data and technical assistance that will ideally make the N.C. 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.

The N.C. Forest Stewardship program was awarded funding from the U.S. Forest Service through the 2020 Forest Stewardship Supplemental Grant. A portion of these funds are being used to provide cost assistance to North Carolina landowners receiving N.C. Tree Farm certification. This cost assistance has helped 167 North Carolina landowners responsible for 54,012 forested acres with their N.C. Tree Farm certification.

Landowner Assistance

Through the N.C. Forest Service Information, Education and Outreach program, rangers and foresters statewide provide valuable information to forest landowners and the public about N.C. Forest Service programs, services and forestry-related issues. Each year, N.C. Forest Service personnel participates in outreach events, engaging farmers, forest landowners and the public across the state. 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. In FY21, the number and frequency of outreach events continued to be impacted by the COVID-19 pandemic. While in-person events were more frequent in FY21 than in FY20, many landowner workshops, media interviews, and other community connections were continued virtually. This virtual connection not only allowed for continued delivery of information, programs and services but also introduced virtual technology and tools to assist with growing our reach with farmers, forest landowners and the public in the future.

North Carolina Climate Risk Assessment and Resilience Plan

In June 2020, the State of North Carolina released a comprehensive assessment of climate change projections, hazards and non-climate stressors facing North Carolina. The assessment recommends resilience strategies and solutions. A key component is nature-based solutions focusing on natural and working lands, including a path forward to protect, restore and enhance forestlands including urban forests, wetland forests and pocosins. Forestland is recognized as the predominant land use in North Carolina and is vital to ensuring resiliency in the face of climate change. Many of the strategies and recommendations featured in North Carolina's Natural and Working Lands Action Plan were implemented in FY21.

<https://deq.nc.gov/energy-climate/climate-change/nc-climate-change-interagency-council/climate-change-clean-energy-17>

North Carolina Forest Action Plan

In August 2021, North Carolina's updated Forest Action Plan was approved by the USDA Forest Service. The updated North Carolina Forest Action Plan is a thorough review of North Carolina's forests, with a focus on changes and trends that have occurred since 2010. This plan not only evaluates past and current forest conditions, but also addresses factors that may impact conservation. In 2022, N.C. Forest Service staff will work with forestry partners and stakeholders to promote the updated action plan and begin implementation.

North Carolina Woods for Wildlife Conservation

The North Carolina Woods for Wildlife Conservation Initiative strives to engage more woodland owners in forest management and certification; to enhance habitat for species of conservation concern; and, to promote the conservation of imperiled habitats including longleaf and bottomland hardwood forests. The project area includes 14 counties in southeastern North Carolina, focusing on American Forest Foundation's Opportunity Areas (as designated in the Southern Wildlife at Risk report), Working Lands for Wildlife focal areas, and priority counties identified by the project's partners. Through FY21, this project has helped to improve 870 acres of bottomland hardwoods; complete 19,818 acres of prescribed burning in longleaf forests; improve 7,030 acres of longleaf; restore 8,796 acres of longleaf through plantings; and reach more than 6,000 landowners and citizens through outreach, technical assistance, management plan preparation and cost share assistance. Additionally, 24,403 acres have been recertified or certified for the first time on 70 Tree Farms. Note: The Southern Wildlife at Risk report is available at https://downloads.cffassets.net/4m1en87uc8f3/FOCzssU92MjeB89NqViRh/b46d811a410c9486c25482f3d5853668/AFF_SouthernReport_web.pdf

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

The N.C. Forest Service continued to develop partnership opportunities related to 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 signed

September 2019. 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 and Community Forestry program continued its charge to promote the health and sustainable management of urban forests in North Carolina. This is accomplished through the delivery of grants, technical assistance, education opportunities and program support to municipalities, organizations, agencies, industries and private landowners. In FY21, 18 urban and community forestry cost share grants totaling \$157,325 in grant funding were awarded to communities and organizations to assist with funding projects that enhance urban forest management programs or that provide education and training. Six projects were completed with \$127,214 in grant funding and matched with \$174,672 cash and in-kind efforts, including more than 2,350 hours of volunteer service. Support and assistance provided to the North Carolina Urban Forest Council delivered 25 urban forestry educational, job training and outreach programs serving 753 attendees, direct urban forestry services provided to landowners and communities totaled 1,164, a 15% increase over FY20. N.C. Forest Service staff, including 25 staff who are International Society of Arboriculture Certified Arborists, provided technical assistance to 145 communities. In FY21, 83 communities were awarded Tree City USA designations.

Water Resources

During FY21, the agency conducted 2,525 initial water quality compliance inspections on timber harvests and an additional 3,699 follow-up inspections. Data analysis began on our most recent cycle of BMP implementation monitoring, and the report of those findings is anticipated in 2022. This effort is supported by a FY18 LSR Grant to evaluate erosion potential at stream crossings across varying degrees of BMP use, and those results are pending publication in a peer-reviewed journal. The N.C. Forest Service continued to proactively support stream crossing BMPs by loaning portable bridgemats to loggers. In FY21, agency bridgemats were used on 14 harvests, for 18 crossings, to access an estimated 351 acres of timber. Additionally, the agency's bridgemats were temporarily deployed for emergency response when a portion of a state-maintained road washed out. Training for the year included co-instruction of 10 college-level classes and one associated field lab, covering a range of BMP topics. Additional technical outreach training consisted of presenting at 15 virtual workshops with an estimated attendance of more than 700 individuals. Staff assisted with making some BMP infrastructure improvements on state forests by fixing roadways and controlling erosion. Although, additional funding is needed to address ongoing needs such as improving public access. Fishery and biological monitoring surveys were completed by cooperating agencies on two previously completed stream restoration projects on state forest lands. The NCFSS Forest Water Quality program is funded through leveraged sourcing of state appropriations coupled with a vital annual allocation of USEPA-derived funds via the Nonpoint Source 319-Grant program, supplemented by occasional contributions from state grants, S&PF funds and/or LSR Grant awards.

Working Lands and Prescribed Fire Education Supporting Military Readiness

In FY21, the Working Lands program continued to focus on prescribed fire education, forging strong partnerships to support prescribed burning associations (PBAs). Despite limited ability for in-person training due to COVID-19, North Carolina hosted two Certified Burner courses with 108 attendees. Our prescribed fire education specialists added 36 participants to the prescribed fire mentoring program, with 10 becoming certified to date. Two new PBAs are being formed, one in Western North Carolina and one in the mid-coastal region of eastern North Carolina. Two additional burn trailers have been purchased and outfitted with prescribed fire tools to support these new PBAs. With strong interest around PBAs in other areas of the state, the N.C. Forest Service will continue to support and expand this concept. This initiative supports the military's training mission by promoting compatible-use private, working forestlands within the Eastern North Carolina Sentinel Landscape.

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