



State and Private Forestry Fact Sheet North Carolina 2023



Investment in State's Cooperative Programs

Program	FY 2022 Final
Community Forestry and Open Space	\$475,000
Cooperative Lands - Forest Health Management	\$4,390,959
Forest Legacy	\$5,050,000
Forest Stewardship	\$212,011
Landscape Scale Restoration	\$525,278
State Fire Assistance	\$1,928,088
Urban and Community Forestry	\$668,517
Volunteer Fire Assistance	\$559,983
Total	\$13,809,836

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 2022 Accomplishments	Value
Population	10,439,388	Landowners Receiving Educational or Technical Assistance	18,827
Acres of Forest Land	18,700,424	Acres Covered by New or Revised Forest Stewardship Plans	54,423
Acres of Nonindustrial Private Forest Land	12,258,717	Acres in Important Forest Resource Areas Covered by New or Revised Stewardship Plans	17,691
Number of NIPF Landowners	199,775	Volunteer Fire Departments Assisted	250
Acres of Federal Land Under State Fire Protection	2,081,700	State Fire Communities Assisted	336
Acres of Private Land Under State Fire Protection	15,454,700	Coop Forest Health Acres Protected	16,896
Number of Rural Fire Departments	1,325	Forest Legacy Project Acquisitions	0
Cities and Towns	553	Communities Provided Urban Forestry Program Assistance	118
Forest Based Employment	70,187	Population Living in Communities Provided Urban Forestry Program Assistance	4,619,202
Economic Impact of Forestry (by rank)	12	Urban Forestry Volunteer Assistance	21,169
State Forestry Budget (All Sources)	77,555,149		

Program Highlights

Cooperative Fire Protection

Firewise USA® continues to be a strong program in North Carolina with 41 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 more than 22 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 2022, 12 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 also 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. 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 \$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 138,000 full- and part-time jobs in the state with a payroll of \$8.3 billion through direct, indirect and induced effects. International markets play a vital role for the forest products industry as North Carolina benefits from export activity with 120 nations, representing approximately \$1.2 billion in trade value. The forest sector in North Carolina contributes about \$19.5 million to state and local taxes and \$826.1 million to federal taxes. Compared to 2019, state and local taxes declined by 93% in response to government subsidies, stimulus payments, and other tax support during the pandemic. In 2020, the forest sector received \$111.4 million in subsidies for production and imports.

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 spongy moth, and more recently emerald ash borer, redbay ambrosia beetle/laurel wilt, thousand cankers disease and spotted lanternfly. Several nonnative invasive pests found elsewhere in the U.S. -- including Asian longhorned beetle 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 20 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 continues to close on remaining Balsam Range Phases (1b, II and III). Upon closing these phases, it will add 3,279 acres to its fee-owned acreage. 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 169,470 acres in forestland currently covered by the North Carolina Forest Stewardship program. Of this total, there are 61,704 acres within the federal investment area for Forest Stewardship as identified by the North Carolina Forest Action Plan. FY22 monitoring data indicates that 87% of these Forest Stewardship plans are being implemented. The Forest Stewardship program experienced its second year under Stewardship Modernization. North Carolina was the first state within USFS Region 8 to complete their monitoring for FY22 and the second nationally.

In FY22, the Forest Stewardship program added 198 new and revised Forest Stewardship plans, addressing multiple resource management objectives on 54,423 acres. According to the North Carolina Forest Action Plan, these stewardship plans addressed more than 17,691 acres within the federal investment areas for the Forest Stewardship Program.

The N.C. Forest Stewardship and N.C. Tree Farm programs continued to work together during FY22, 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 were used to provide cost assistance to North Carolina landowners receiving N.C. Tree Farm certification. This cost assistance has

helped 260 North Carolina landowners responsible for 79,799 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 FY22, the number and frequency of outreach events continued to be impacted by the COVID-19 pandemic. While in-person events were more frequent in FY22 than in FY21, 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 FY22. <https://deq.nc.gov/energy-and-climate>

North Carolina Forest Action Plan - Urban and Community Forestry

A highlight accomplishment was made in achieving the 2020 NC Forest Action Plan – Urban Forest Inventory, Assessments and Analysis objective. Working in partnership with the N.C. Urban Forest Council (Council), an innovative urban forest inventory and assessments grant program was developed, implemented, and will be utilized to deliver these services on an ongoing basis. Tree canopy cover assessments were completed in five coastal cities through this program providing urban forest benefits and planning information to help these communities measure resilience and work toward sustainable management. In addition, the N.C. Urban and Community Forestry Cloud (<https://pg-cloud.com/NorthCarolina/>) web-based application was created to house and map all the canopy cover assessments and tree inventories completed, U&CF stakeholders (municipalities NGOs, etc), projects and events, awards (Tree City etc.), and information about each for any visitor to see. The application also has U&CF tools for stakeholders and the NCFS to manage U&CF programs.

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 FY22, this project has helped improve 1,415 acres of bottomland hardwoods, complete 36,446 acres of prescribed burning in longleaf, improve 9,467 acres of longleaf, restore 11,600 acres of longleaf through plantings, and reach more than 10,000 landowners and citizens through outreach, technical assistance, management plan preparation and cost share assistance. Additionally, 32,711 acres have been recertified or certified for the first time. Note: The Southern Wildlife at Risk report is available at https://downloads.cffassets.net/4mlen87uc8f3/FOCzssU92MjeB89NqViRh/b46d811a410c9486c25482f3d5853668/AFF_SouthernReport_web.pdf

Prescribed Fire Education and Training

In FY22, the Prescribed Fire Education program continued to focus on prescribed fire training to landowners, forging strong partnerships to support prescribed burning associations (PBAs) and increase

implementation by landowners. North Carolina hosted five Certified Burner courses with 141 attendees. Statewide, PBA members burned 1,197 acres. Our prescribed fire education specialists added 27 new participants to the prescribed fire mentoring program. The newly formed Southern Blue Ridge PBA is off to a successful start, having hosted five events and six prescribed burns reaching 640 individuals. With strong interest around PBAs in other areas of the state, the N.C. Forest Service will continue to support and expand this concept.

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 enhance 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 FY22, seven U&CF grant projects totaling \$70,019 were completed including five canopy cover assessment projects, one Education/Training Projects and one tree inventory project. These projects returned a total match of \$41,900, engaged 62 volunteers for a total of 912 hours of volunteer service. Financial support provided to the North Carolina Urban Forest Council resulted in the delivery of 10 urban and community forestry educational, job training and outreach programs serving 663 attendees. A total of 968 technical urban forestry assists were provided to landowners and communities. N.C. Forest Service staff, including 25 staff who are International Society of Arboriculture Certified Arborists, provided technical assistance to 143 municipalities. Arbor Day Foundation recognitions included 80 Tree City USA communities, and 16 Tree Campus Higher Education colleges and universities, and 4 Tree Line USA utilities. Over 20,470 hours of volunteer service were recorded in achieving these designations.

Water Resources

During FY22, the agency conducted 2,545 initial water quality compliance inspections on timber harvests and an additional 2,579 follow-up inspections. The latest BMP survey report is pending and will be printed and distributed to targeted customers this year. Our most recent cycle of BMP Implementation Monitoring is presently planned, and field data capture will start this year. Additionally, the 2021 BMP Manual (Orange Book) was completed and distributed statewide while the companion document and 2022 BMP Field Guide will be printed and distributed this year. The N.C. Forest Service continued to proactively support stream crossing BMPs by loaning portable bridgemats to loggers. Agency bridgemats were used on 11 harvests, for 11 crossings, to access an estimated 188 acres of timber. Training for the year included co-instruction of 9 college level classes and four associated field labs, covering a range of BMP topics. Additional technical outreach training consisted of presenting at 13 workshops with an estimated attendance of over 750 individuals. Staff assisted with making some BMP infrastructure improvements on state forests by fixing roadways and controlling erosion, although additional funding is required to address ongoing needs, including improving public access. Continued periodic monitoring surveys were completed by the Water Resources Branch on multiple previously completed stream restoration projects on state forest lands. The NCFS 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 other grant awards.

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