



## Revised Forestry Leaflets

- The entire series of 20+ Forestry Leaflets was revised for the first time in more than 15 years.
- Forestry Leaflets are 1-to-3 pages, and explain fundamental forestry and water quality practices for forest landowners and the general public.
- Copies can be downloaded and printed from the publications section of the Web site, <http://dfr.nc.gov/>.

## WATERS:

We provided technical assistance to our internal and external customers on the following projects, via our WATERS process (*Water Resources Assessment and Technical Response Support*):

- Described the viability of pond installation within a mountaintop home development community in McDowell County for use as a firefighting water source.
- Evaluated options for installation of a stormwater retention pond at DFR's Claridge Tree Nursery in Wayne County.
- Investigated ways to reduce the DFR's statewide petroleum fuel consumption and fuel costs.
- Reported on potential nonpoint source pollution issues that could arise from a proposed installation of an underground natural gas line under a stream at Clemmons Educational State Forest in Johnston County.

## River Basin Plans

- In support of the N.C. Division of Water Quality, we provided information about forestry activities for the five-year revisions of the Basinwide Water Quality Plans for the French Broad River, the Lumber River and the Tar-Pamlico River.
- We also continued to participate in the stakeholder process of the Falls Lake Initiative, to assure that forestry practices can continue to contribute in the long-term protection of Raleigh's water source.

## Federal Stimulus

In April 2009, the DFR submitted a nonpoint source/Best Management Practices (BMP) project proposal for federal stimulus funds allocated by the American Recovery and Reinvestment Act (ARRA), through the USDA-Forest Service. In October, we received notice that our proposal had been accepted. By early December, we received the final agreement from the federal government. This project will be funded with \$247,000 to support two efforts: (1) stream restoration on state forest land; and (2) sustaining the statewide forestry BMP program and its affiliated staffing through 2010.

## Additional Partners and Cooperators



The North Carolina Division of Forest Resources is an equal opportunity / affirmative action employer. Its programs, activities and employment practices are available to all people regardless of race, color, religion, sex, age, national origin, handicap or political affiliation.

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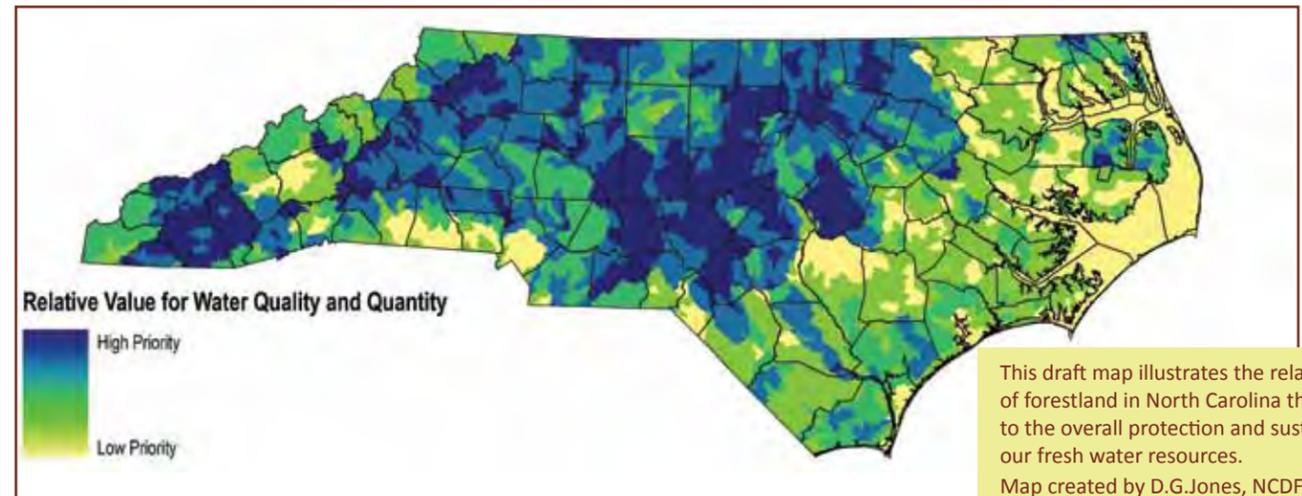


## North Carolina Division of Forest Resources, Nonpoint Source & Water Quality programs

- How can North Carolina's forests continue to produce clean and abundant water?
- What forestlands are of the highest priority to protect our state's water supply resources?
- How can forest management practices be used to restore, repair, mitigate or enhance a degraded stream or body of water?
- Just what are "ecosystem services," and how does forestry fit into that picture?



These are some of the questions that are being addressed as part of a first-ever comprehensive assessment of North Carolina's forest resources. This project, the Statewide Assessment of Forest Resources, is a federally-directed project being led by the N.C. Division of Forest Resources, in partnership with N.C. State University's Extension Forestry Department.



This draft map illustrates the relative priorities of forestland in North Carolina that contribute to the overall protection and sustainability of our fresh water resources.  
Map created by D.G.Jones, NCDFR, 2009.

For this project, staff with the Nonpoint Source and Water Quality programs are tackling the issues related to water, carbon sequestration and ecosystem services. The map shown above is one example of the geo-spatial analyses that were produced as part of this project. The draft assessment of North Carolina's forest resources was released in December 2009 for peer review. Once the assessment report is completed, the second phase of this project will begin: Developing a five-year strategic action plan in cooperation with a multitude of stakeholders from across the state. The entire project will be completed by May 2010. To stay updated on this project, visit the Web site: <http://www.ncforestassessment.com/>.



[www.dfr.nc.gov](http://www.dfr.nc.gov)



We are committed to protecting the state's forest resources so they can continue to produce the best quality water for the benefit of our health, environment and economy. The Division of Forest Resources Water Quality and Nonpoint Source programs and our partners work together to protect and restore water resources and educate people about how we can meet society's needs for healthy forests.

# Technical Assistance, Training and Education

## Mountain State Fair

After a three-year absence, the Nonpoint Source program once again provided exhibits, handouts and staff to assist with the 2009 Mountain State Fair. We exhibited a poster that highlights stream restoration work at Hooker Falls on DuPont State Forest.



Students line up to learn about nonpoint source pollution during the 2009 Mountain State Fair.

## Fire Fighter Equipment Operator (FFEO) Training

A two-day training class was conducted for new FFEO's on Best Management Practices and erosion control measures when installing or rehabilitating fire control lines with heavy equipment.



Equipment operators watch a fellow FFEO install a waterbar diversion on a trail with a DFR fire-fighting bulldozer tractor. These diversions control runoff on sloping trails and fire lines.

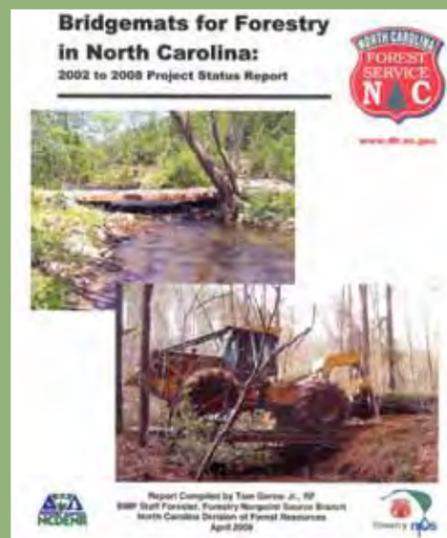
## Water Quality Compliance Inspections

The DFR inspects logging and other forestry-related activities for compliance with the Forest Practices Guidelines Related to Water Quality (FPGs) regulations. During fiscal year 2008-2009:

- 2,694 harvest sites were inspected with 96% of these sites in compliance with FPGs.
- 524 other forestry sites were inspected, with 99% of these sites in compliance with FPGs.
- Five (5) cases statewide were referred for enforcement of a rule violation.

## ProLogger

- Trained 130 loggers at workshops in Williamston, Statesville and Canton.
- Rolled out the first-ever completely revised 6-chapter "Forest Management & Environment" unit of ProLogger.
- Exhibited at the Carolina Log'n Demo during August in Raleigh, with an estimated 1,000 attendees.



## Bridgemat Program Status Report

- Produced and distributed a six-year project status report covering 2002 to 2008.
- Describes the DFR's success in promoting the use of bridgemats for temporary stream crossings during logging.
- During 2009\*, the DFR bridgemats were used on at least 47 logging jobs to protect 49 stream crossings, while providing access to more than 1,700 acres of timberland for harvest.
- In 2010, we plan to demonstrate engineered-lumber bridgemats for the first known application for forestry use in North Carolina.

\*Figures only available for partial year at time of printing.

# Stream Restoration

We completed the final phase of a major stream and watershed restoration project on Purlear Creek at Rendezvous Mountain Educational State Forest in Wilkes County.

This newly restored segment of Purlear Creek amounts to nearly 1,500 linear feet and adds to the prior work conducted upstream in 2006 and 2007. In total, more than 4,000 feet of Purlear Creek have been restored or enhanced during the last several years at the state forest.

A diversity of funding and operational partners has contributed to our success on this multi-phased project:



**BEFORE, April 2009:** Purlear Creek flowed along the base of this collapsing embankment that supports a public road (SR1350, Mozelles Road). Relocating the stream kept sediment from getting into the water and eliminated an ongoing threat to the road's sub-structure.



**AFTER, May 2009:** A new, appropriately-sized stream channel was established away from the embankment, seen in the background after soil and straw had been applied for stabilization. This view of the new stream is less than one week after completion, during which the site received nearly three-inches of rain.



**BEFORE, April 2009:** Purlear Creek was situated alongside Mozelles Road and was functioning as a drainage ditch. Sediment could easily wash into the stream.



**AFTER, July 2009:** A new floodplain and riparian corridor was created in a former hay pasture, allowing Purlear Creek to be relocated away from the road in a natural, meandering form.