Interagency Partnership Supports Watershed Improvements

In mid-2015 a major stream restoration project began on “The Canal” (yes it’s really named that on the map) located at the Claridge State Forest Tree Nursery in Wayne County. This restoration project is funded and managed by the N.C. Department of Transportation as compensatory mitigation for impacts that resulted from construction of the new U.S. Highway 70 Bypass.

- An estimated 7,200 cubic yards of soil will be graded.
- A new lower-elevation floodplain will be created, allowing high water to flow out of the banks during storms, thus potentially reducing flood impacts downstream.
- The straight-line canal and a feeder ditch will be replaced with a new channel of a more naturally-curving form.
- Restoration will conclude in 2016. Thousands of trees and shrubs will be planted along the newly restored riparian zone.

So, as you make a trip along this new section of U.S. 70 and breeze across the long causeway bridge over the Little River, you can know that the N.C. Forest Service is doing its part to support our state’s transportation infrastructure needs.

Left photo of The Canal in 2014 before restoration. There was very little functioning riparian zone or floodplain.

Right photo of the same section of The Canal in 2015, viewed from the opposite end, soon after channel reconfiguration. A lowered floodplain allows water to naturally spill out during high flow.
Several educational outreach products were developed, including new exhibits for N.C. Forest Service employees to use across the state. Look for these next time you visit a State Forest, or see the Forest Service set-up at a civic event.

Notable Outreach Events with NCFS Participation:
(Estimated number of attendees shown in parentheses)

- 5th Interagency Conference for Research in Watersheds (300)
- 2015 Annual Conference of the N.C. Water Resources Research Institute (250)
- 2015 Mid-Atlantic Logging & Biomass Equipment Expo (3,500)
- 2015 Resource Conservation Workshop for high school students (90)
- 2015 Southern Farm Show (thousands!)
- 2015 State EnviroThon, serving as an expert judge to review the final entrant teams
- Trained 132 loggers at North Carolina ProLogger workshops
- Instructed 52 forestry college students on harvest planning and forestry Best Management Practices (BMPs)
In 2015 the N.C. Forest Service developed and published “Managing Forests for Water” as a guide for developing a forest watershed management plan. There is a lot of interest among foresters and water system managers in understanding the interconnection between forests and water supply watersheds.

This 15-page guide briefly summarizes some of the research on this topic. It then outlines how a forest watershed management plan could be developed to focus on water resources, while still accommodating the traditional goals of timber, wildlife and personal recreation.

A forest need not be preserved in order to maximize watershed protection. Silviculture and forest management can be compatible with watershed protection when you use BMPs (Best Management Practices).

Remember: Healthy Forests = Clean Water!

Stream Restoration

An initial round of funding was awarded by the N.C. Clean Water Management Trust Fund to restore an estimated 1,400 feet of the Linville River in Avery County at the NCFS Mountain Training Facility. Planning for this large-scale restoration project will occur in 2016, with expected work to begin in 2017.

Photo of the Linville River. The road crossing and island will be removed to create a new channel and enhance fish habitat.

Compliance Inspections

Results from statewide FPG inspections in state fiscal year 2014-2015:
(FPG = N.C. Forest Practices Guidelines Related to Water Quality, rule 02 NCAC 60C .0100 - .0209)

4,047: Number of forestry sites inspected for compliance with the FPG standards
3,518: Number of re-inspections
98%: Statewide average FPG compliance rate
62: Number of inspected sites that were not-in-compliance upon initial inspection
115: Number of sites inspected as a result of receiving a complaint
19: Number of complaint sites that were not-in-compliance upon initial inspection
2: Number of cases that were referred for enforcement of a FPG non-compliance
Bridgemats

The N.C. Forest Service allows loggers to borrow agency-owned portable steel bridgemats for establishing temporary stream or ditch crossings. This effort is intended to demonstrate their value in protecting water quality when compared with other stream crossing methods. During 2015, the NCFS bridgemats were deployed on 44 logging jobs, to protect 65 crossings, and provided access to an estimated 2,600 acres of timber harvest.

Many loggers and timber buyers now have their own bridgemats, as seen in this photo of long bridgemats owned by a logger in central North Carolina. We feel that our outreach and demonstration project has led to more loggers buying or building their own bridgemats over the past decade. In sharing our success story with other state forestry agencies, it has become clear that North Carolina leads the South in the use of bridgemats as a low-impact, low-risk stream crossing method for logging.

Technical Assistance

A few examples of assistance provided by N.C. Forest Service staff in 2015:

Washington County: Visited and assessed a tract for a woodland owner who requested information about constructing a permanent stream crossing and improving about 500 feet of an old road in a wetland for accessing his timber.

Statewide: Analyzed the proposed changes to the federal definition of “waters of the U.S.” to determine potential implications for forestry. Prepared and shared summaries with forestry leaders in North Carolina, and for state forestry agencies across the Southern region of the U.S. On October 8, 2015 this proposed rules change was halted by a federal judge. The final outcome remains to be determined.

Statewide: Completed another year of Forestry BMP Implementation Monitoring, to assess the degree to which forestry BMPs are being used, and how they are functioning. So far we have conducted detailed assessments on 147 sites, and expect to complete this study in 2016.