

Chapter 8

Forestry in the Hiwassee River Basin

8.1 Forestland Ownership and Resources

Approximately 50 percent of forestland in the Hiwassee River basin is publicly owned, and primarily consists of the Nantahala National Forest. Most of the remaining balance of forestland is privately owned by individuals. This ownership estimate comes from the most recent data published by the USDA-Forest Service *Forest Statistics for North Carolina, 2002*. (Brown, Mark J. Southern Research Station Resource Bulletin SRS-88. January 2004).

8.1.1 Forest Management

At least 1,300 acres of land were established or regenerated with forest trees across the basin from September 1, 1999 through August 31, 2004. During this same time period the Division of Forest Resources (DFR) provided nearly 300 individual forest plans for landowners that encompassed 13,500 acres in the basin. For more information on forest management, visit the website at www.dfr.state.nc.us.

8.2 Forestry Water Quality Regulations in North Carolina

8.2.1 Forest Practice Guidelines (FPG) for Water Quality

Forestry operations in North Carolina are subject to regulation under the Sedimentation Pollution Control Act of 1973 (G.S. Ch.113A Art.4 referred to as “SPCA”). However, forestry operations may be exempted from the permit and plan requirements of the SPCA, if the operations meet the compliance standards outlined in the *Forest Practices Guidelines Related to Water Quality* (15A NCAC II .0101 - .0209, referred to as “FPGs”) and General Statutes regarding stream obstruction (G.S.77-13 & G.S.77-14).

The North Carolina Division of Forest Resources (DFR) is delegated the authority to monitor and evaluate forestry operations for compliance with these aforementioned laws and/or rules. In addition, the DFR works to resolve identified FPG compliance questions brought to its attention through citizen complaints. Violations of the FPG performance standards that cannot be resolved by the DFR are referred to the appropriate State agency for enforcement action.

During the period September 1, 1999 through August 31, 2004 the Division of Forest Resources conducted 213 FPG inspections of forestry-related activities in the Hiwassee basin; 90 percent of the sites inspected were in compliance.

8.2.2 Other Forestry Related Water Quality Regulations

In addition to the State regulations noted above, DFR monitors the implementation of the following Federal rules relating to water quality and forestry operations:

- The Section 404 silviculture exemption under the Clean Water Act
- The federally-mandated 15 Best Management Practices (BMPs) related to road construction in wetlands

- The federally-mandated BMPs for mechanical site preparation activities for the establishment of pine plantations in wetlands of the southeastern U.S.

8.2.3 Water Quality Foresters

While the DFR currently has a Water Quality Forester located in ten of the DFRs thirteen Districts across the State, there are none assigned within the Hiwassee basin. However, the forester staff based in the DFRs Sylva District Office and Asheville Regional Office address water quality issues related to forestry as time permits, while also handling wildfire suppression and forest management duties. Contact information for each district and/or county can be found on DFRs website at www.dfr.state.nc.us and in Appendix VII.

8.2.4 Forestry Best Management Practices (BMPs)

Implementing Forestry Best Management Practices is strongly encouraged by the Division of Forest Resources in order to efficiently and effectively protect the water resources of North Carolina. During this reporting period, the DFR recorded over 300 instances across 13,000 acres in which BMPs were either noted in use or had been recommended. The Forestry Best Management Practices Manual describes recommended techniques that should be used to help comply with the State's forestry laws and help protect water quality. This manual is currently undergoing its first revision since adoption in 1989. This revision, led by the DENR-appointed Technical Advisory Committee (TAC) has undertaken four years of effort.

To further assess BMPs, the DFR conducted a detailed, statewide BMP Implementation Survey from March 2000 through March 2003 to evaluate Forestry BMPs on *active* harvest operations. This survey evaluated 12 harvest sites in the Hiwassee basin, with a resulting BMP implementation rate of 66 percent, which falls in the lower quartile of implementation across the state. The problems most often cited in this survey relate to stream crossings, skid trails, and site rehabilitation. This survey, and additional surveys to be conducted, will serve as a basis for focused efforts in the forestry community to address water quality concerns through better and more effective BMP implementation and training.

8.2.5 Bridgemats

DFR has been providing bridgemats on loan out to loggers for establishing temporary stream crossings during harvest activities. Temporary bridges are usually the best solution for stream crossings, instead of culverts or hard-surfaced 'ford' crossings. Wooden timber bridgemats have been available for use in the basin for nearly seven years, and are available upon request from the Sylva District Office. In 2005, six new 25-foot wooden bridgemats were assigned to the Sylva District; these mats were acquired with USEPA 319-Grant funds, allowing DFR to continue this successful program. More information about using bridgemats, and the above noted BMP survey, is available on the 'Water Quality' section of the DFR's Web site <http://www.dfr.state.nc.us/>.

8.2.6 Protection from Wildfires

The "Firewise Communities" program is a national, multi-agency effort designed to reach homeowners, community leaders, planners, developers, and others in the effort to protect people, property, and natural resources from the risk of wildfires, before a fire starts. The Firewise

Communities program offers a series of practical steps that individuals and communities can take to minimize wildfire risks. The Firewise approach emphasizes community responsibility for planning in the design of a safe community as well as effective emergency response, and individual responsibility for safer home construction and design, landscaping, and maintenance. In North Carolina, the most susceptible areas for wildfires in which homes and woodlands co-exist are in the mountains and areas of the coast.

Some examples of Firewise practices include:

- Maintaining a ‘defensible perimeter’ around homes and structures by controlling vegetation growth
- Removing so-called ‘ladder fuels’ from around structures, that may allow a small fire on the ground to move upwards, and into the structure
- Constructing access roads and driveways in a way that will allow access by fire trucks and other heavy emergency response vehicles.

More information is available on the North Carolina Firewise Web site <http://www.ncfirewise.org/> and the national Web site www.firewise.org.

8.2.7 Forestry Accomplishments

Since the previous basinwide plan was produced, the DFR accomplished the following tasks in an ongoing effort to improve compliance with forest regulations and, in turn, minimize nonpoint source (NPS) pollution from forestry activities:

- Replaced worn-out wood timber bridgemats in the Sylva District with new mats available for use throughout the basin.
- Established a Forestry NPS Unit that develops and oversees projects throughout the state that involves protection, restoration and education on forestry NPS issues.
- Revised and produced 10,000 copies of a pocket field guide outlining the requirements of the FPGs and suggested BMPs to implement.
- Created and published 15,000 copies of a new brochure “Call Before You Cut” for landowners promoting pre-harvest planning to insure water quality issues are addressed prior to undertaking timber harvesting.
- Continued to assist with workshops in cooperation with the N.C. Forestry Association’s “ProLogger” logger training program.
- DFR continues its efforts to protect water quality through various protection, restoration, and education projects. This includes research projects, on-site demonstrations, and integration of NPS topics through the DFR’s network of Educational State Forests and State Forests. Progress reports and summaries are posted in the ‘Water Quality’ section of the DFR’s Web site <http://www.dfr.state.nc.us/> as they are completed.

