

# OTHER NATURAL RESOURCE PROGRAMS

## IN THE NEW RIVER BASIN

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### NATURAL RESOURCE PROGRAMS

The efforts of several Natural Resource Programs are discussed throughout this basin plan. Many of these programs are mentioned briefly in the Watershed Chapters as part of a coordinated effort to protect and/or restore water quality and are locally based. Other programs which have similar purposes but have a basin, state or national focus are discussed in more detail here. This chapter is by no means a complete listing of Natural Resource Programs that are active in the New River basin, but rather a discussion of a few highly active programs and their involvement in restoration and/or protection efforts within the basin. The Source Water Assessment & Protection Program is discussed in the [Water Quantity Chapter](#). Additional programs may be added in the future.

Several locally based Natural Resource Programs and their efforts during this planning cycle are discussed in the [Voluntary Incentive Programs & Local Initiatives Chapter](#). That chapter will also expand as additional local program efforts become known.

### ECOSYSTEM ENHANCEMENT PROGRAM (EEP)

EEP uses watershed planning at two scales (basinwide and local) to identify the best locations to implement stream, wetland and riparian buffer restoration/enhancement and preservation projects. The planning process considers where mitigation is needed and how mitigation efforts might contribute to the improvement of water quality, habitat and other vital watershed functions in the state. Watershed planning requires GIS data analysis, stakeholder involvement, water quality monitoring, habitat assessment and consideration of local land uses and ordinances. It is a multi-dimensional process which considers science, policy and partnership.

### RIVER BASIN RESTORATION PRIORITIES

EEP River Basin Restoration Priorities (RBRPs) are focused on the identification of Targeted Local Watersheds (TLWs) within the 8-digit Cataloging Units (subbasins) that comprise individual river basins. TLWs represent priority areas (14-digit HUCs) for the implementation of stream and wetland mitigation projects. GIS screening factors considered in the selection of TLWs include: documented water quality impairment and habitat degradation, the presence of critical habitat or significant natural heritage areas, the presence of water supply watersheds or other high-quality waters, the condition of riparian buffers, estimates of impervious cover, existing or planned transportation

projects, and the opportunity for local partnerships. Recommendations from local resource agency professionals and the presence of existing watershed projects are given significant weight in the selection of TLWs. RBRP documents (and TLW selections) for each of the 17 river basins in North Carolina are updated periodically to account for changing watershed conditions, increasing development pressures and local stakeholder priorities.

The most recent update to the New River Basin TLWs occurred in 2009. In total, eight 14-digit HUCs have been designated TLWs by EEP in the New River basin (8-digit CU 05050001). The updated RBRP, including a summary table of Targeted Local Watersheds, can be found at [EEP's New River Basin website](#).

TABLE 7-1: NEW RIVER BASIN TLWS & LWP SUMMARY

8-DIGIT HU	TLW's (#)	LWP
05050001	8	Little River & Brush Creek (including Bledsoe Creek)

## **LOCAL WATERSHED PLANNING**

EEP Local Watershed Planning (LWP) initiatives are conducted in specific priority areas (typically a cluster of two or three Targeted Local Watersheds) where EEP and the local community have identified a need to address critical watershed issues. The LWP process typically takes place over a two-year period, covers a planning area around 50 to 150 square miles, and includes three distinct phases: I - existing data review and preliminary watershed characterization (largely GIS-based); II – detailed watershed assessment (including water quality & biological monitoring and field assessment of potential mitigation sites); and III – development of a final Project Atlas and Watershed Management Plan. EEP collaborates with local stakeholders and resource professionals throughout the process to identify projects and management strategies to restore, enhance and protect local watershed resources.

In 2005, EEP initiated a Local Watershed Planning (LWP) effort in the 111-square mile Little River and Brush Creek watersheds in Alleghany County. This LWP culminated in 2007 with the development of a Project Atlas identifying stream and wetlands restoration and preservation sites within priority sub-watersheds and a detailed Watershed Management Plan for the Bledsoe Creek focus area. This work included the development of specific stormwater management recommendations for the Town of Sparta and the identification and modeling of stormwater BMP project sites. EEP is currently working with local resource professionals and landowners to implement stream and wetland restoration/enhancement and preservation projects in the two LWP watersheds. For more information on this LWP initiative, go to the [EEP LWP Fact Sheet](#).

More information about the River Basin Restoration Priorities and LWP project areas within the New River Basin can be found on the [EEP website](#).

## **EEP PROJECTS IN THE NEW RIVER BASIN**

As of September 2010, EEP had a total of 15 mitigation projects in some stage of being completed in the New River Basin. These stages include design; construction; monitoring (construction complete); and long-term stewardship. Table 7-2 provides details on these projects, which include stream and wetland restoration/enhancement and preservation projects. In total, EEP is in some stage of restoration or enhancement on over 45,000 feet of stream and approximately 20 acres of wetlands in the New River basin. In addition, the program is in some stage of preservation on over 29,000 feet of stream and 22 acres of wetlands. For additional information about EEP's Project Implementation efforts, go to the [EEP Project Implementation webpage](#). To view the locations of these project sites, go to [EEP's Web Map site](#).

TABLE 7-2: EEP PROJECTS IN SOME STAGE OF COMPLETION IN THE NEW RIVER BASIN (8-DIGIT HU 05050001)

HUC	PROJECTS (#)	STREAM RESTORATION/ ENHANCEMENT (FT)	STREAM PRESERVATION (FT)	WETLAND RESTORATION/ ENHANCEMENT (AC)	WETLAND PRESERVATION (AC)
05050001	15	45,384	29,491	19.9	22.2

## FORESTRY

### FORESTLAND OWNERSHIP\*

Approximately 98% of the forestland in the basin is privately-owned, with the remaining 2% comprised of publically-owned lands. The most notable public forested lands in the basin are New River State Park, and Mount Jefferson State Park. Within North Carolina’s portion of this river basin, there are no State Forests or National Forest lands.

*\* The ownership estimates come 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).*

### FOREST WATER QUALITY REGULATIONS

Forestry operations in North Carolina are subject to regulation under the Sedimentation Pollution Control Act of 1973 (Article 4-GS113A, referred to as “SPCA”). However, forestry operations may be exempted from specific requirements of the SPCA if the operations meet the compliance performance standards outlined in the Forest Practices Guidelines Related to Water Quality (15A NCAC 1I .0100 - .0209, referred to as “FPGs”) and General Statutes regarding stream and ditch obstructions (GS 77-13 and GS 77-14).

The FPG performance standard rule-codes and topics include:

- 💧 .0201: Streamside Management Zone (SMZ)
- 💧 .0202: Prohibition of Debris Entering Streams and Waterbodies
- 💧 .0203: Access Road and Skid Trail Stream Crossings
- 💧 .0204: Access Road Entrances
- 💧 .0205: Prohibition of Waste Entering Streams, Waterbodies, and Groundwater
- 💧 .0206: Pesticide Application
- 💧 .0207: Fertilizer Application
- 💧 .0208: Stream Temperature
- 💧 .0209: Rehabilitation of Project Site

The NC-DFR is delegated the authority to monitor and evaluate forestry operations for compliance with these aforementioned laws and/or rules. In addition, the NC-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 NC-DFR are referred to the appropriate State agency for enforcement action. During the period January 1, 2004 through December 31, 2009 there were 167 FPG inspections conducted on forestry-related sites in the basin; approximately 81% of the sites were in compliance upon the initial site inspection.

## **OTHER WATER QUALITY REGULATIONS**

In addition to the multiple State regulations noted above, NC-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 for activities in wetlands;
- 💧 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.

## **WATER QUALITY FORESTERS**

The entire river basin is included within the coverage area of a Water Quality Forester, who is based out of the Lenoir District Office. Statewide, there is a Water Quality Forester position in 9 of NC-DFR's 13 operating districts. Water Quality Foresters conduct FPG inspections, assist with BMP implementation, develop pre-harvest plans, and provide training opportunities for landowners, loggers and the public regarding water quality issues related to forestry. These foresters also assist County Rangers on follow-up site inspections and provide enhanced technical assistance to local agency staff. Water Quality Foresters are the primary point of contact in their districts for responding to water quality or timber harvesting questions or concerns that are suspected to be related to forestry activities.

## **FORESTRY BEST MANAGEMENT PRACTICES**

Implementing forestry Best Management Practices (BMPs) is strongly encouraged to efficiently and effectively protect the water resources of North Carolina. In 2006, the first ever revision to the North Carolina forestry BMP manual was completed. This comprehensive update to the forestry BMP manual is the result of nearly four years of effort by the NC-DFR and a DENR-appointed Technical Advisory Committee consisting of multiple sector stakeholders, supported by two technical peer-reviews. The forestry BMP manual describes measures that may be implemented to help comply with the forestry regulations while protecting water quality. Copies of the forestry BMP manual can be obtained at a County or District office, or [online](#).

In the basin during this period, the NC-DFR assisted with or observed 265 forestry activities in which BMPs were either implemented or recommended, encompassing a total area greater than 10,000 acres.

From March 2000 through March 2003, the DFR conducted a statewide BMP Implementation Survey on 565 active forest harvest operations to evaluate the usage of forestry BMPs. This survey evaluated 18 sites in this river basin, with a resulting BMP implementation rate of 68%. The problems most often cited in this survey across the state relate to stream crossings, skid trails and site rehabilitation. A copy of this report is available from the DFR Raleigh Central Office or can be downloaded from the Web site [water quality webpage](#). A second round of BMP Implementation Surveys was conducted on additional logging sites statewide from 2006 to 2008; at this time, the data is being compiled and a report of the findings will be available in 2010. These periodic, recurring BMP surveys serve as a basis for focused efforts in the forestry community to address water quality concerns through better and more effective BMP development, implementation and training.

## **PROTECTING STREAM CROSSINGS WITH BRIDGEMATS**

The NC-DFR provides bridgemats on loan to loggers for establishing temporary stream crossings during harvest activities in an effort to educate loggers about the benefits of installing crossings in this manner. Temporary bridges can be a very effective solution for stream crossings, since

the equipment and logs stay completely clear of the water channel. Bridgemats are available for use in this basin, and have been for several years. Periodic status reports, a list of bridgemat suppliers, and additional information are available at [DFR bridgemat webpage](#).

## **CHRISTMAS TREE PRODUCTION**

North Carolina’s Christmas tree industry is predominant within the New River basin, and remains an important economic driver in this region of the state. It should be noted that the NC-DFR does not oversee regulations or land-clearing activities associated with Christmas tree production. These activities are not considered forestry (“silviculture”) activities, but are instead deemed to be an agricultural or horticultural activity. County Soil & Water Conservation District or USDA-Natural Resources Conservation Service (NRCS) personnel can provide BMP assistance. Additional information about Christmas trees is available from the [N.C. Cooperative Extension Service](#).

## **FOREST REGENERATION & PLANNING**

Approximately 2,900 acres of land were established or regenerated with forest trees across the basin from January 1, 2004 through December 31, 2009. During this same time period the NC-DFR produced more than 700 individual forest plans for landowners that encompassed almost 31,000 acres of forestland in the basin.

## **EDUCATION & OUTREACH**

Each year since 2004 the NC-DFR summarizes its BMP, water quality, and nonpoint source accomplishments in a color brochure entitled “Year In Review”. [This report](#) is available on the Web.

The North Carolina Forestry Association, in cooperation with forest industry, NC-DFR, and NCSU, conducts educational programs annually at different locations in the North Carolina. The first program is called the Forestry and Environmental Camp, and is for middle and high school aged children. These 3-day long camps introduce children to the basic science and math skills needed when practicing forestry. The second program is the Sustainable Forestry Teachers Academy/Tour, and educates school teachers about forestry practices and how forest products are manufactured. For more information about these programs visit [NC Forestry Association](#) web page.

## **CONTACTS**

TABLE 7-3: NORTH CAROLINA DFR CONTACTS FOR THE NEW RIVER BASIN

OFFICE LOCATION	CONTACT PERSON	PHONE	ADDRESS
Lenoir District: D2	Water Quality Forester	(828) 757-5611	1543 Wilkesboro Blvd., NE Lenoir, NC 28645-8215
Western Regional Office: Region III	Asst. Regional Forester	(828) 665-8688	14 Gaston Mountain Road Asheville, NC 28806-9101
Raleigh Central Office	Nonpoint Source Branch - Forest Hydrologist	(919) 857-4856	1616 Mail Service Center Raleigh, NC 27699
Griffiths Forestry Center	Water Quality & Wetlands Staff Forester	(919) 553-6178 Ext. 230	2411 Old US Hwy 70-West Clayton, NC 27520

## REFERENCES

North Carolina Department of Environment Natural Resources (NCDENR). Division of Forest Resources (DFR). January 1990. *Forest Practices Guidelines Related to Water Quality*. North Carolina Administrative Code: 15A General Statute 77-13 and 77-14. Raleigh, NC.

\_\_\_\_\_. Division of Water Quality (DWQ). August 2004a. *Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina*. North Carolina Administrative Code: 15A NCA 2B .0220. Raleigh, NC.

\_\_\_\_\_. Division of Land Resources (DLR). 1999. *Sedimentation Pollution Control Act of 1973*. § 113A Article 4. Raleigh, NC

USDA-Forest Service. *Forest Statistics for North Carolina, 2002*. Brown, Mark J. Southern Research Station Resource Bulletin SRS-88. January 2004.

**Note:** URL addresses for hyperlinks found in this plan are listed in the [Acronyms & Definitions Chapter](#).