Photo by Juanita Caldwell

North Carolina Wetlands Restoration Program
Broad River Basin Watershed Restoration Plan

April 2003

Purpose and Background of the NC Wetlands Restoration Program

In 1996, the North Carolina General Assembly established the North Carolina Wetlands Restoration Program (NCWRP) to restore, enhance, preserve and create wetlands, stream, and stream-side (riparian) areas throughout North Carolina's seventeen major river basins. The NCWRP's goals are:

- To protect and improve water quality, reduce flooding, and improve fish and wildlife habitat by restoring degraded streams and wetlands.
- To promote the use of comprehensive watershed planning as a tool for natural resource management and protection.
- To increase the ecological effectiveness of compensatory mitigation requirements associated with wetland, stream and riparian buffer regulations.

Purpose of Watershed Restoration Plans

The NCWRP develops *Watershed Restoration Plans* to guide its restoration activities within each of the 17 major river basins. The Watershed Restoration Plans delineate specific watersheds that exhibit both the need and opportunity for wetland, stream and riparian buffer restoration. These watersheds are called Targeted Local Watersheds and receive priority for NCWRP planning and restoration project funds. In addition, the NCWRP encourages other groups and organizations to consider implementing restoration projects in Targeted Local Watersheds, because multiple restoration projects concentrated within a local watershed will result in greater benefits to water quality, aquatic habitat and other vital watershed functions.

This Watershed Restoration Plan complements two other documents: The *Broad River Basinwide Water Quality Plan* (DWQ, 2002) http://h2o.enr.state.nc.us/basinwide/index.html, and the *Guide to the NCWRP's Watershed Restoration Planning Strategy (version 1)* http://h2o.enr.state.nc.us/wrp/pdf/restplans/Planning%20Guide.pdf

Sandy Run Creek, Cleveland County

Integrated Broad River Basinwide Water Quality Plan

Prior to July 2002, the NCWRP developed Watershed Restoration Plans (formerly called *Basinwide Wetlands and Riparian Restoration Plans*) for each river basin in the state. Beginning with the Neuse River Basin in 2002, the NCWRP began incorporating its Targeted Local Watershed selections and restoration project information into the DWQ Basinwide Plans, available online at: http://h2o.enr.state.nc.us/basinwide/index.html This programmatic change allows the NCWRP to focus more planning effort at the local level where stream and wetland restoration efforts can have the greatest measurable impact.

Brushy Creek, Cleveland County

An abbreviated version of the NCWRP Watershed Restoration Plan is provided herein. The overarching goals of this plan are to protect and enhance water quality, flood prevention, wildlife habitat, and recreational opportunities. The objectives of the plan are to identify *Targeted Local Watersheds* within the basin which have the need and opportunity for restoration, enhancement, and preservation of water and riparian resources. Watersheds are identified through analysis of water quality and habitat data and geographic information (GIS), and a review process designed to integrate the advice and input from those resource professionals and citizens who live within the river basin.

Targeted Local Watersheds in the Broad River Basin can be viewed at http://h2o.enr.state.nc.us/wrp/plans/maps/riverbasinmap5.htm A description of the factors

Cleghorn Creek, Rutherford County

Targeted Local Watersheds

that were considered in selecting these watersheds is presented below.

The NCWRP evaluates a variety of data and information on water quality and habitat conditions in each river basin to select *Targeted Local Watersheds*. However, public comment and the professional judgment of local resource agency staff play a critical role in targeting local watersheds. A summary of the Targeted Local Watersheds selected for the Broad River Basin, including a checklist of the pertinent factors for selecting those watersheds, is presented in the table below. A description of the process for Local Watershed targeting is provided in the *Guide to NCWRP Watershed Restoration Strategy* available online at: http://h2o.enr.state.nc.us/wrp/pdf/restplans/Planning%20Guide.pdf
A brief description of the factors NCWRP considers in watershed selection follows:

Water Quality Problems: The NCWRP targets watersheds with existing and potential water quality problems resulting from nonpoint source pollution. To make this determination, the NCWRP evaluates DWQ use support ratings, the 303(d) List and DWQ Basinwide Assessment reports. NCWRP also uses land cover data to evaluate riparian buffer condition. The NCWRP believes that riparian buffers provide many water quality benefits, and streams that lack a well-vegetated riparian buffer are at greater risk for water quality degradation.

Cumulative wetland and stream impacts: The cumulative impact of many wetland and stream impacts due to farming, development and road building can have a detrimental effect on water quality. The NCWRP is responsible for addressing these cumulative impacts and uses data from the 401 Wetlands Program database to locate those watersheds facing the greatest water quality threats due to unmitigated wetland and stream impacts.

Resource Values: The NCWRP recognizes that resource values beyond water quality should be considered in evaluating the restoration need and opportunity of a watershed. The resource values that the NCWRP considers in targeting local watersheds include public water supply, shellfish areas, outstanding or high quality resource waters, aquatic natural heritage elements and regulated trout waters.

Watershed Approach: The NCWRP watershed approach advocates concentrating multiple water quality projects in one relatively small watershed to yield a greater cumulative impact on water quality. The NCWRP wants to tie wetland and stream restoration projects with other efforts such as agricultural best management practices, stormwater controls, and riparian buffer preservation to restore or improve entire watershed functions, not just streams and wetlands. For this reason, the NCWRP targets areas with existing watershed planning or protection initiatives already underway.

Partnership Opportunities: To assess the potential for partnership opportunities at the local watershed scale, the NCWRP reviews existing or planned Clean Water Management Trust Fund and Section 319 projects, and also considers if a municipality is located in the watershed. Municipal governments often own good sites for water quality improvement projects, but lack the technical expertise and the resources to implement the projects. For these reasons, the NCWRP views municipalities as good potential partners for restoration projects. In addition, many cities are subject to Phase I or Phase II

Stormwater Regulations and gather monitoring information that is useful in designing and measuring the long term benefits of restoration efforts.

Land Cover: Water quality studies suggest that heavily forested watersheds regulate stormwater runoff, thereby reducing the likelihood for severe streambank erosion, nutrient runoff and sediment pollution. For this reason, the NCWRP uses the percentage of cleared land in a watershed as an indicator of restoration need and opportunity.

Local Resource Professional (RP) Comments/Recommendations: The comments and recommendations of local resource agency professionals — including staff with Soil & Water Conservation districts, NRCS, municipal planning & storm water departments, DENR regional staff (e.g., Wildlife Resources Commission), and local/regional Land Trusts — are considered heavily in the selection of Targeted Local Watersheds. Local resource professionals often have specific and up-to-date information regarding the condition of local streams, wetlands, and riparian buffers. Furthermore, local RPs may be involved in local water resource protection initiatives (and the acquisition of funding for such projects) that provide good partnership opportunities for NCWRP restoration projects and/or Local Watershed Planning initiatives.

Holland Creek, Rutherford County

Local Watershed Planning

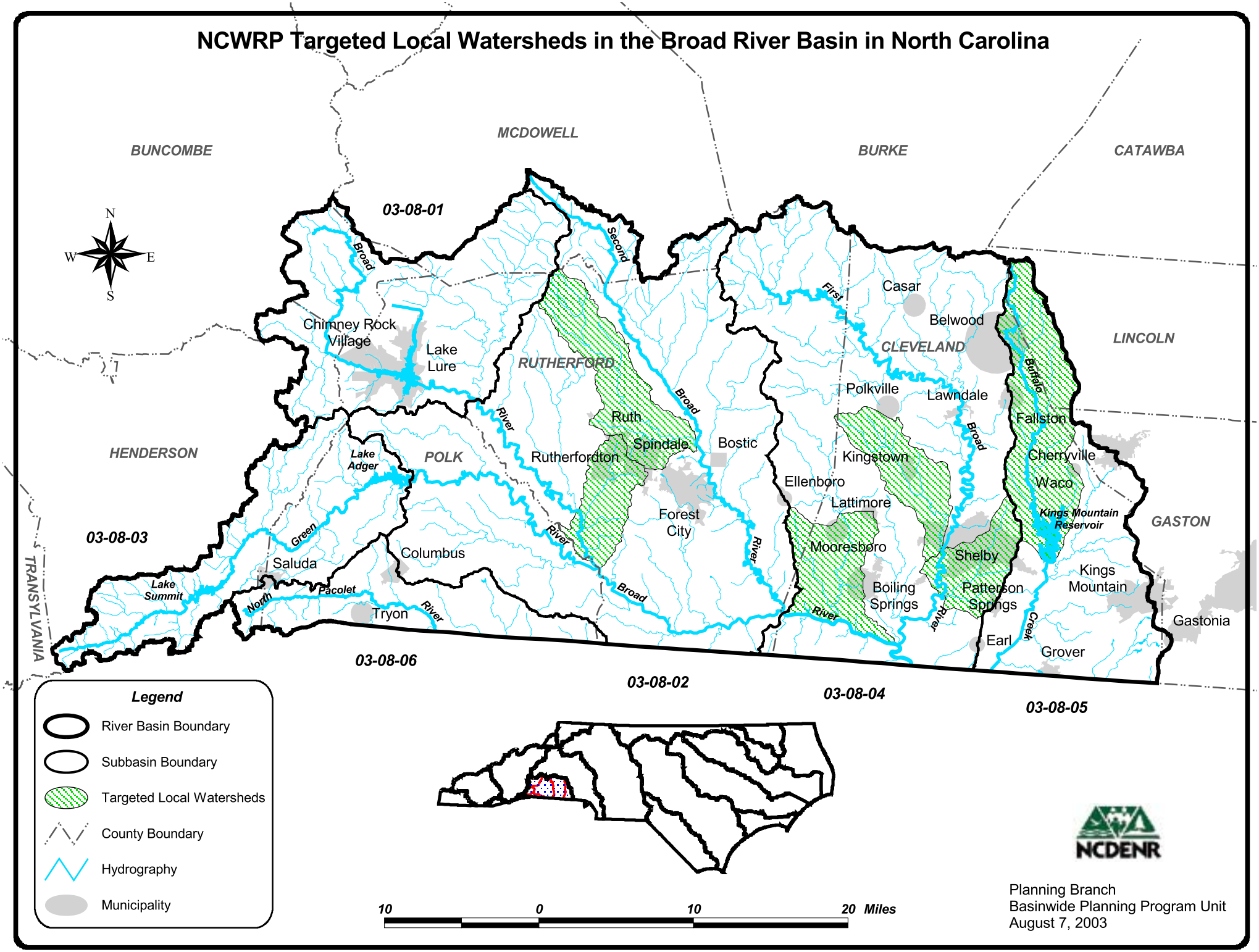
In 2000, the NCWRP initiated a Local Watershed Planning Program to conduct detailed restoration planning in a limited number of Targeted Local Watersheds across the state. These locally-based plans include a comprehensive watershed assessment to identify causes and source of nonpoint source pollution. The plans also identify and prioritize wetland areas, stream reaches, riparian buffer areas and best management practices that will provide environmental benefits to the watershed. The NCWRP coordinates with local community groups, local governments and others to develop and implement these plans.

Cathey's Creek Local Watershed Plan

In June 2003, the NCWRP initiated a Local Watershed Plan (LWP) for the Cathey's Creek watershed. The NCWRP will use the plan to identify and prioritize wetland and stream restoration projects as well as best management practices to provide water quality and aquatic habitat improvements to the watershed. The assessment of watershed conditions will be completed in the summer 2004, with the restoration plan scheduled for completion in late 2004. The NCWRP is coordinating with local community groups, local governments, and others to develop and implement the plan.

For more information about this LWP contact Kristin Cozza 704-364-2733 or Kristin.Cozza@ncmail.net

NCWRP Targeted Local Watersheds in the Broad River Basin in North Carolina



NCWRP Targeted
Local Watersheds in the Broad River Basin
2003

Sub-basin	Local Watershed Name and HU code	Impaired Stream(s)[1]	Public Water Supply[2]	Existing, Planned Projects[3]	Local Resources Professional Recommendation[4]
03-08-02	Catheys Creek 03050105070020	Yes	Yes	Yes, NCWRP Local Watershed Plan SWCD Sediment Initative	Yes
03-08-02	Cleghorn Creek 03050105040090	No, but degraded habitat			
03-08-04	Hickory Creek 03050105080090	No, but degraded habitat			
03-08-04	Sandy Run 03050105070080			Yes, DOT Preservation	Yes
03-08-04	Brushy Creek 03050105080070	Yes	Yes		Yes
03-08-05	Buffalo Creek 03050105100010	No, but degraded habitat	Yes		Yes

1 Stream segments (or entire streams) that do not support their designated uses and are therefore considered **impaired** based on declining biological ratings [e.g., due to degraded aquatic habitat] and/or failure to meet NC DWQ water quality standards. As identified in the 2002 Broad River Basinwide Water Quality Plan (DWQ, 2002). ***[See the DWQ Basinwide Water Quality Plan for a more complete explanation of DWQ stream classifications & standards, and use support ratings.]***

2 Water Supply (WS) = waters used as water supply sources for drinking, culinary, or food processing purposes.

3 Existing or planned projects in the following programs: NCWRP=North Carolina Wetlands Restoration Program; CWMTF=Clean Water Management Trust Fund; CES=North Carolina Cooperative Extension Service; 319= North Carolina Division of Water Quality Section 319 Program; WARP=North Carolina Division of Water Quality Watershed Assessment and Restoration Program; SWCD=Soil and Water Conservation District; DOT=North Carolina Department of Transportation.

4 Local Resource Professional Recommendation, as determined during the outreach process of updating the NCWRP Watershed Restoration Plan.

Additional Information

NCWRP Broad River Basin Watershed Restoration Plan

For additional information regarding the NCWRP Broad River Basin Watershed Restoration Plan please contact:
George Norris 919-733-5312 george.norris@ncmail.net
And visit the program website at http://h2o.enr.state.nc.us/wrp/

DWQ Broad River Basinwide Water Quality Plan

For additional information regarding the DWQ Broad River Basinwide Water Quality Plan please contact:
Julie Jackson 919-733-5083 ext. 367 julie.jackson@ncmail.net
And visit the program website at http://h2o.enr.state.nc.us/basinwide/index.html