



New River Basin River Basin Restoration Priorities

June 2005



Purpose and Background of the N.C. Ecosystem Enhancement Program

In July 2003, North Carolina committed its resources to an innovative program to restore, enhance and protect its wetlands and waterways. The N.C. Ecosystem Enhancement Program (EEP) combines existing wetlands restoration initiatives (formerly the Wetlands Restoration Program or NCWRP) of the N.C. Department of Environment and Natural Resources with ongoing efforts by the N.C. Department of Transportation (NCDOT) to offset unavoidable environmental impacts from transportation-infrastructure improvements. The U.S. Army Corps of Engineers (USACE) joined as a sponsor in the historic agreement. A Memorandum of Agreement between NCDENR, NCDOT and USACE stipulates that EEP mitigation projects will be:

- Provided in advance of the permitted NCDOT impacts,
- Designed to address functional replacement of stream, buffer and wetlands impacts and
- Identified and implemented within the context of a watershed approach based on multiple scales of planning.

Purpose of River Basin Restoration Priorities

The EEP develops River Basin Restoration Priorities to guide its restoration activities within each of the state's 17 major river basins. The River Basin Restoration Priorities 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 EEP planning and restoration project funds. In addition, the EEP 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 River Basin Restoration Priorities complements two other documents:

- The New River Basinwide Water Quality Plan [Division of Water Quality (DWQ) 2005], which is available online at the [NC Division of Water Quality \(DWQ\)](#) website, and
- [Guide to the NCWRP's Watershed Restoration Planning Strategy](#)

This guide was produced in April 2001, prior to the establishment of the EEP, and contains outdated references to the former NCWRP and to the concept of "priority subbasins".

A new planning guide is being prepared to describe EEP's updated approach to River Basin Restoration Priorities at the basin-wide scale, GIS-based screening analyses of eight-digit cataloguing units (CUs) to select Targeted Local

Watersheds (TLWs) at the scale of 14-digit Hydrologic Units (HUs). A subset of TLWs are periodically selected by EEP planning staff to be the focus of in-depth Local Watershed Planning initiatives (see <http://www.nceep.net/pages/lwplanning.htm>)



Little River, Alleghany County

Integrated New River Basinwide Water Quality Plan

Prior to July 2002, the NCWRP developed River Basin Restoration Priorities (formerly called Watershed Restoration Plans) as stand-alone documents 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 directly into the DWQ Basinwide Plans, which are available on the [NC Division of Water Quality \(DWQ\)](#) website.

An abbreviated version of the NCWRP River Basin Restoration Priorities is provided herein. The main goals of this plan are to protect and enhance water quality, flood prevention, wildlife habitat and recreational opportunities. The primary 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 additional 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.



Eroding banks within a pasture along Glade Creek, Alleghany County

Targeted Local Watersheds in the New River Basin can be viewed at <http://www.nceep.net/pages/new.htm>

A description of the factors that were considered in selecting these watersheds follows.

Targeted Local Watersheds

The EEP 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 New River Basin, including a checklist of the pertinent factors for selecting those watersheds, is presented in the table on page 8. A description of the process formerly used for Local Watershed targeting is provided in the [Guide to the NCWRP's Watershed Restoration Planning Strategy](#) (April 2001). A brief description of the factors EEP considers in watershed selection follows:

Water Quality Problems: EEP targets watersheds with existing and potential water quality problems resulting from nonpoint source pollution. To make this determination, EEP evaluates DWQ use support ratings, the 303(d) List and

DWQ Basinwide Assessment reports, which are available online at the [NC Division of Water Quality \(DWQ\)](#) website. EEP also uses land cover data to evaluate riparian buffer condition. The EEP 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 and habitat degradation.

Cumulative wetland and stream impacts: The cumulative effects of many small scale wetland and stream impacts due to farming, development and road building can have a detrimental effect on water quality. EEP 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: EEP recognizes that resource values beyond water quality should be considered in evaluating the restoration need and opportunity of a watershed. The resource values that EEP 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: EEP watershed approach advocates concentrating multiple water quality projects in one relatively small watershed to yield a greater cumulative benefit to water quality. EEP wants to tie wetland and stream restoration projects with other efforts such as agricultural best management practices (BMPs), stormwater controls, and riparian buffer preservation to restore or improve entire watershed functions, not just streams and wetlands. For this reason, EEP 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, EEP 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 watershed improvement projects, but may lack the technical expertise and the resources to implement the projects. For these reasons, the EEP 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 EEP uses the percentage of cleared land in a watershed as an indicator of restoration need and opportunity.

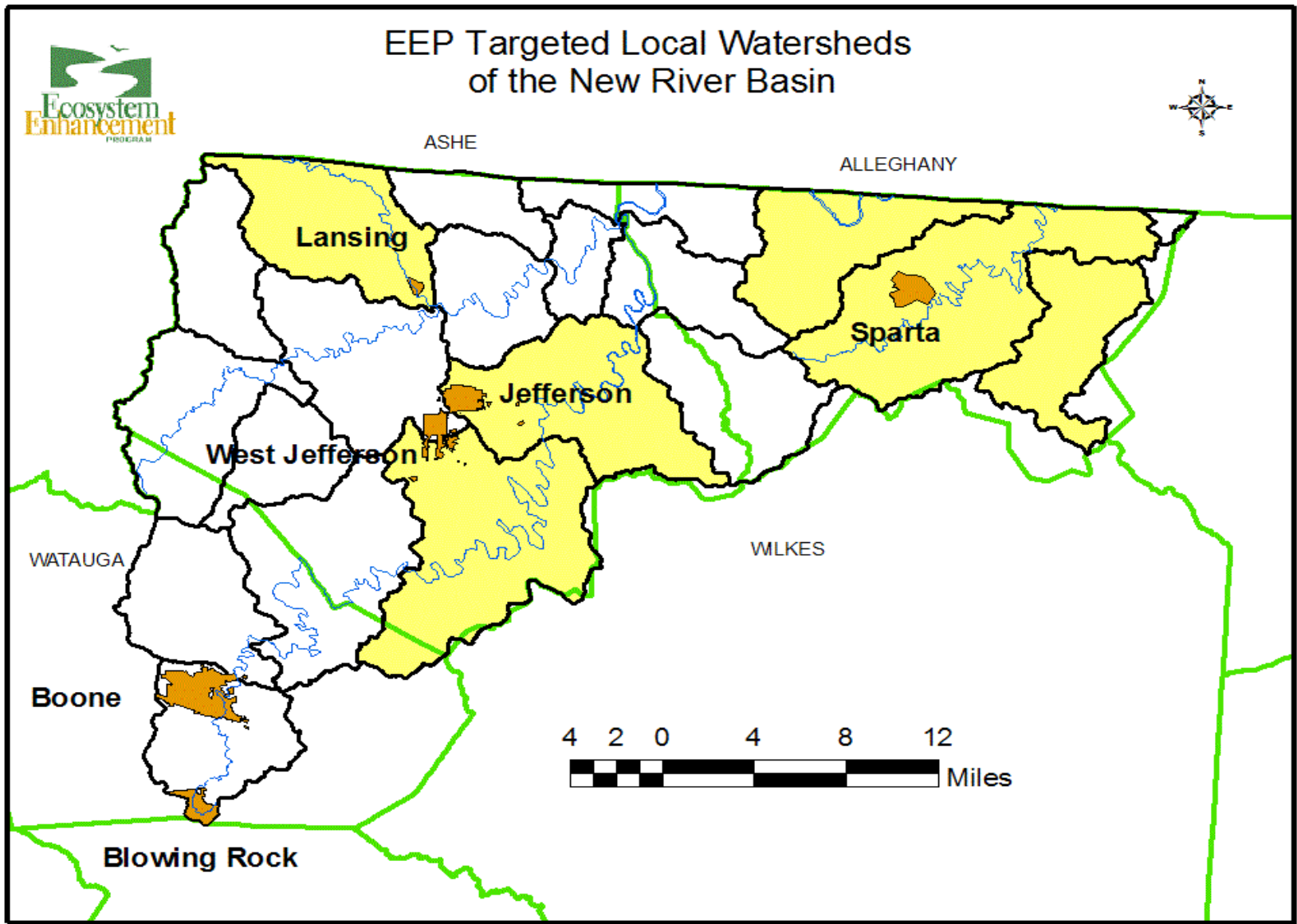
Local Resource Professional (RP) Comments/Recommendations: The comments and recommendations of local resource agency professionals including staff with Soil & Water Conservation districts, the Natural Resources Conservation Service (NRCS), municipal planning and stormwater departments, NCDENR regional 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 EEP restoration projects and/or Local Watershed Planning initiatives.

Streams, Wetland and Riparian Buffer Restoration Projects

EEP has initiated two stream restoration projects in the New River basin that restored 7,000 linear feet and enhanced 2,500 linear feet of stream. EEP has also acquired two preservation projects that protected 171 acres and preserved over 15,000 linear feet of the main stem of the South Fork of the New River.



Pine Swamp Creek, Alleghany County



Subbasin	Local Watershed Name and HU code	Impaired Stream(s) ¹	Downward Trend in W. Quality ²	Public Water Supply ³	ORW or QW ⁴	Aquatic NHP Element ⁵	Existing, Planned Projects ⁶	Municipality(ies); Phase I or II ⁷	Local Resource Professional Recommendation ⁸
1	05050001020040 South Fork New River	Yes	Yes	Yes	Yes	Yes	Yes Blue Ridge Rural Land Trust NCNR	No	Yes
1	05050001020050 Ore Knob	Yes	No	No	Yes	Yes	Yes NCNR	No	Yes
2	05050001010050 Big Horse Creek	No	No	No	Yes	Yes	Yes Blue Ridge Rural Land Trust EEP	No	No
3	05050001030020 Little River	No	No	Yes	Yes	Yes	Blue Ridge Rural Land Trust	No	Yes
3	05050001030030 Brush Creek	No	No	No	Yes	Yes	Yes EEP	No	Yes
3	05050001030015 Elk Creek	No	No	No	Yes	Yes	No	No	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 2005 Draft Basinwide Water Quality Plan (DWQ, 2005).

² **Downward Trend in Water Quality** as indicated in the in 2004 Draft Basinwide Assessment Report (DWQ, 2004).

³ **Water Supply (WS)** = waters used as water supply sources for drinking, culinary, or food processing purposes.

⁴ **ORW** = outstanding resource waters. **HQW** = high-quality waters, which include critical habitat areas or primary nursery areas.

⁵ **Aquatic Natural Heritage elements** are special species, habitats, or community types identified by the NC Natural Heritage Program and that occur, or spend some portion of their life cycle, in wetlands, streams, riparian areas, or estuarine waters.

⁶ **Existing or planned projects** in the following programs: EEP = Ecosystem Enhancement Program; LWP = EEP Local Watershed Plan.

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; NCNR = National Committee for the New River

⁷ **Associated towns or cities and applicability of NPDES Phase II** stormwater rules or that are otherwise likely to have significant current or future urban stormwater management issues.

⁸ **Local Resource Professional Recommendation**, as determined during the outreach process of updating the NCEEP River Basin Restoration Priorities.



Additional Information

EEP New River Basin River Basin Restoration Priorities

For additional information regarding the EEP New River Basin River Basin Restoration Priorities, please contact George Norris at (919) 733-5312 or george.norris@ncmail.net and visit the program website at www.nceep.net.

DWQ New River Basinwide Water Quality Plan

For additional information regarding the DWQ New River Basinwide Water Quality Plan, please contact Michelle Raquet at (919) 733-5083 (ext. 367) or michelle.raquet@ncmail.net and visit the program website at <http://h2o.enr.state.nc.us/basinwide/>