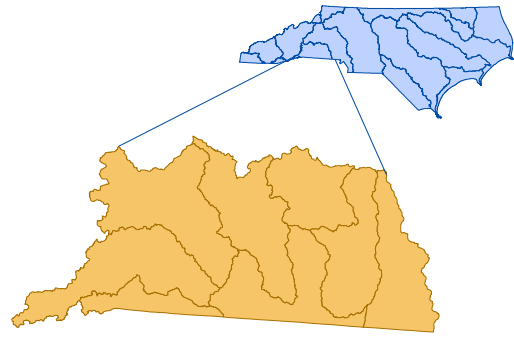


LOCAL INITIATIVES IN THE BROAD RIVER BASIN



LOCAL INITIATIVES

Local initiatives allow local people to make decisions that affect change in the community, protect natural resources, and combine professional and historical expertise to holistically understand the challenges and opportunities of tackling watershed protection. By working in coordination across jurisdictions and agency lines, more funding opportunities are available, and it is easier to generate necessary matching or leveraging funds. This could potentially allow local entities to do more work and be involved in more activities because their funding sources are diversified. The more localized the project, the better the changes for success.

CLEAN WATER MANAGEMENT TRUST FUND (CWMTF)

Created in 1996, the North Carolina Clean Water Management Trust Fund (CWMTF) makes grants to local governments, state agencies, and conservation nonprofit groups to help finance projects that specifically address water pollution problems. The CWMTF has provided nearly \$16.4 million for projects in the Broad River basin. Projects include land acquisition for greenways, parks, and recreational areas, capital improvements to wastewater and stormwater infrastructure, and stream restorations. Table 14-1 at the end of this chapter, lists the projects funded by the CWMTF from January 2002 through December 2006.



TABLE 14-1: CWMTF FUNDED PROJECTS IN THE BROAD RIVER BASIN

PROJECT NUMBER	APPLICATION NAME	PROPOSED PROJECT DESCRIPTION	AMOUNT FUNDED	COUNTY
2006A-002	Carolina Mountain Land Conservancy - Acq/ McCraw Tract, Worlds Edge, Broad River (Assigned to NC Div of Parks and Recreation)	Protect through fee simple purchase 301 acres along the Broad River. The tract will become part of the newly authorized Hickory Nut Gorge State Park.	\$2,309,000	Henderson
2005B-005	Carolina Mountain Land Conservancy - Acq/ World's Edge Tract, Pool and Wolf Creeks (Assigned to NC Div Parks and Recreation)	Protect through fee simple purchase 1,568 acres along Pool and Wolf Creeks. The tract will become part of the Hickory Nut Gorge State Park and will encompass a trail system.	\$3,900,000	Henderson
2005B-702	Carolina Mountain Land Conservancy - Storm/ Upper Broad Watershed Protection Program	Continue Upper Broad River Watershed Protection program for another two years. Includes installation of erosion control practices (including livestock exclusion), stream restoration, and outreach.	\$82,000	Buncombe
2004B-003	Carolina Mountain Land Conservancy- Acq/ Ball Tract, Green River	Minigrant and subsequent purchase of a permanent conservation easement on 628 acres, including 311 riparian acres, along the Green River and tributaries.	\$1,523,000	Henderson
2004B-007	Carolina Mountain Land Conservancy- Acq/ Schenk Tract, Green River	Minigrant and subsequent purchase of a permanent conservation easement on 2,600 acres, including 1,225 riparian acres, along the Green River and tributaries.	\$5,141,000	Henderson
2005D-013	Carolina Mountain Land Conservancy- Donated Mini/ Linneman Tract, Rock Creek	Minigrant to pay for transactional costs for a donated conservation easement on 58.7 acres in the Upper Green River watershed along Rock Creek.	\$13,800	Henderson

PROJECT NUMBER	APPLICATION NAME	PROPOSED PROJECT DESCRIPTION	AMOUNT FUNDED	COUNTY
2003D-001	Carolina Mountain Land Conservancy- Donated Minigrant, Linneman Tract/ Green River	Minigrant to pay for a donated easement on 69 acres along Rock Creek and tributaries of the Green River.	\$22,000	Henderson
2002A-009	Foothills Conservancy of NC- Acq/ Carpenter Broad R. Tract	Protect a total of 235 acres along the Broad River and tributaries. CWMTF to acquire 56 riparian acres through fee simple purchase and acquire a permanent conservation easement on 77 riparian acres. Landowner to donate 102 acres upland (fee simple).	\$191,000	Rutherford
2004D-015	Foothills Conservancy of NC- Donated Minigrant, Stensland-Alline Tract	Minigrant to pay for transactional costs for a donated permanent conservation easement on 95 acres along a tributary to the Broad River.	\$25,000	Rutherford
2005B-804	Lake Lure, Town of - Plan/ WW/ I & I Investigations, Lake Lure	Conduct a detailed evaluation of infiltration and inflow problems and needs in the Town's sewer system to provide information toward reducing fecal coliform and nutrient delivery to Lake Lure.	\$77,000	Rutherford
2002A-013	Mountain Valleys RC&D -Acq & Erosion Control BMPs/ Upper Broad R. & Reedy Patch Cr	Protect 250 riparian areas through permanent conservation easements on seven properties along various tributaries in the Upper Broad River watershed. Funds also provided for implementation of sediment stabilization BMPs and sediment monitoring.	\$300,000	Rutherford
2006B-017	NC Div Parks & Recreation - Acq/ Chimney Rock State Park, Fall Creek	Protect through fee simple purchase 996 ac, including 87 riparian ac, along Fall Creek & the Broad River. Tract would become part of the newly authorized Hickory Nut Gorge State Park and would help protect rare aquatic species and trout waters.	\$1,533,000	Rutherford
2003A-030	NC Wildlife Resources Commission- Acq./ Bolin Knob Tract, Silver Creek	Acquire through fee simple purchase 468 acres along Cane Creek, Cane Branch and Magazine Branch. The property is adjacent to South Mountain Game Lands and the Rollins Mountain Natural Heritage Area.	\$236,000	Burke
2003A-034	NC Wildlife Resources Commission- Acq./ Lone Mt. Tract, Little First Broad	Acquire through fee simple purchase 1,265 acres along Little First Broad River, Sudlow and Walker Branches and tributaries of Cane Creek. The tract will become part of the South Mountain Game Lands.	\$561,000	Rutherford
2005B-409	Rutherford Soil & Water Conservation District - Rest/ Ag BMPs & Cattle Exclusions, Broad River Tributaries	Continue a program to implement agricultural best management practices in the Broad River Basin. Includes livestock exculsion, stream crossings, water supply systems, gully stabilization, heavy use areas, cropland conversion, and riparian forests.	\$480,000	Rutherford
Total Funded			\$16,393,800	

SECTION 319 GRANT PROGRAM (EPA)

The Section 319 Grant Program administrated at the federal level through the USEPA was, established to provide funding to curb nonpoint source (NPS) pollution. EPA provides funds to state and tribal agencies, which are then allocated some funds to local watershed groups and organizations to address current or potential NPS concerns. Funds may be used to demonstrate best management practices (BMPs), establish a TMDL for a watershed, or to restore impaired streams.

In NC, the NCDENR DWQ administers the 319 Program. Each fiscal year the State is awarded nearly \$5 million to address NPS pollution through the 319 Program. Grants are divided into two categories: base and incremental. Base projects concern research-oriented, demonstrative, or educational purposes for identifying and preventing potential NPS areas in the state, where waters may be at risk of becoming impaired. Incremental projects seek to restore streams or



other portions of watersheds that are already impaired and not satisfying their intended uses. State and local governments, interstate and intrastate agencies, public and private nonprofit organizations, and educational institutions are eligible to apply for Section 319 monies. An interagency workgroup reviews the proposals and selects those projects that are to be funded. Thirty percent of the funding supports ongoing State NPS programs. The remaining seventy percent is made available through the competitive grant process. Two projects in the Broad River basin have been successfully applied for and completed (Table 14-2). More information and final reports can be found on the [Section 319 Program](#) web site.

TABLE 14-2: 319 PROJECTS IN THE BROAD RIVER BASIN

FISCAL YEAR	CONTRACT NUMBER	NAME	DESCRIPTION	AGENCY	FUNDING
2001	EW03039	WaDE Program	Onsite Wastewater, BMP Implementation	NCDENR Division of Environmental Health (DEH)	\$326,673
2003	EW04013	Upper Broad River Watershed Protection Program	Agriculture, Education	Mountain Valley RC&D	\$150,000
Total Funding					\$476,673

NC CONSTRUCTION GRANTS AND LOANS PROGRAMS

The NC Construction Grants and Loans (CG&L) Section provides grants and loans to local government agencies for the construction, upgrade, and expansion of wastewater collection and treatment systems. As a financial resource, the section administers five major programs that assist local governments. Of these, two are federally funded programs administered by the state: the Clean Water State Revolving Fund (SRF) Program and the State and Tribal Assistance Grants (STAG). The STAG is a direct congressional appropriations for a specific “special needs” project within the State of North Carolina. The remaining programs - the High Unit Cost Grant (SRG) Program, the State Emergency Loan (SEL) Program and the State Revolving Loan (SRL) Program - are state funded programs, with the latter two being below market revolving money loans. In the Broad River basin, four facilities have received over \$4.1 million in grants and loans from CG&L (Table 14-3).



As a technical resource, CG&L in conjunction with the EPA has initiated the Municipal Compliance Initiative Program. It is a free technical assistance program to identify wastewater treatment facilities that are declining but not yet out of compliance. A team of engineers, operations experts and managers from the section work with local officials to analyze the facility’s design and operation. For more information, visit the [CG&L](#) Web site.

TABLE 14-3: PROJECTS SUPPORTED BY CONSTRUCTION GRANTS & LOANS

PROGRAM	PROJECT DESCRIPTION	APPLICANT	OFFER DATE	LOAN/GRANT OFFERED
SEL	Lyman Street sewer outfall replacement	Boiling Springs	5/23/2001	\$403,000
SEL	Collection system rehabilitation and sewer extensions	Columbus	10/23/2003	\$1,767,751
STAG	Upgrade existing WWTP	Lake Lure	9/30/2005	\$305,000
SRL	Upgrade existing 30 MGD WWTP	Rutherfordton	12/15/2005	\$591,952
SRF	Pump Station modifications	Boiling Springs	2/21/2006	\$1,051,348
Total Funding				\$4,119,051
SEL: State Emergency Loan Projects / STAG: State and Tribal Assistance Grant Projects / SRF: State Revolving Loan Projects				

CLEAN WATER BONDS - NC RURAL CENTER

Outdated wastewater collection systems - some more than 70 years old - allow millions of gallons of untreated or partially treated wastewater to spill into the state's rivers and streams each year. The NC Rural Economic Development Center, Inc. (Rural Center) has taken the lead role in designing public policy initiatives to assist rural communities in developing, expanding and repairing local water and sewer infrastructure. The Rural Center is a private, nonprofit organization. The Rural Center's mission is to develop sound, economic strategies that improve the quality of life in North Carolina, while focusing on people with low to moderate incomes and communities with limited resources.



To support local economic growth and ensure a reliable supply of clean water, the Rural Center administers three Water and Sewer Grant Programs to help rural communities develop water and sewer systems. The Supplemental Grants Program allows local governments and qualified nonprofit corporations to improve local water and sewer systems by addressing critical needs for public health, environmental protection and/or economic development. The Capacity Building Grants Program provides funding for local governments to undertake planning efforts to support strategic investment in water and sewer facilities. Projects typically include preliminary engineering reports, master water/sewer plans, capital improvement plans, feasibility studies, and rate studies. The Unsewered Communities Grants Program funds the planning and construction of new central, publicly owned sewer systems. This grant is designed to cover 90 percent of the total cost of a project, not to exceed \$3 million. Qualifying communities for this program must not be served by an existing wastewater collection or treatment system. For each grant program, priority is given to projects from economically distressed counties of the state as determined by the *NC Department of Commerce*.

Since the program's beginning, the Rural Center has awarded nearly 500 communities and counties more than \$64 million to plan, install, expand, and improve their water and sewer systems. As a result, these communities have served new residential and business customers, created and preserved thousands of jobs, and leveraged millions of dollars in other water and sewer funds. Table 14-4 lists the grants that were awarded in the Broad River Basin between 2002 and 2006. More information on the Water and Sewer Grants administered by the *Rural Center* can be found on their Web site.

TABLE 14-4: CLEAN WATER BONDS AWARDED BY THE NC RURAL CENTER IN THE BROAD RIVER BASIN

COUNTY	RECIPIENT	TYPE	YEAR ADMINISTERED	GRANT AMOUNT
Rutherford	Rutherford County	Supplemental	August 2004	\$400,000
Cleveland	Town of Polkville	Supplemental	February 2004	\$400,000
Rutherford	Broad River Water Authority	Supplemental	February 2004	\$400,000
Rutherford	Rutherford County	Supplemental	February 2004	\$289,500
Rutherford	Town of Forest City	Supplemental	August 2003	\$400,000
Rutherford	Town of Bostic	Supplemental	August 2003	\$400,000
Cleveland	Town of Boiling Springs	Supplemental	December 2002	\$400,000
Cleveland	Cleveland County	Supplemental	December 2002	\$400,000
Cleveland	City of Shelby	Supplemental	December 2002	\$400,000
Cleveland	Cleveland Co. Sanitary District	Supplemental	December 2002	\$400,000
Rutherford	Town of Forest City	Supplemental	August 2002	\$400,000
Rutherford	Broad River Water Authority	Supplemental	August 2002	\$400,000
Polk	Town of Tryon	Capacity	August 2004	\$40,000
Rutherford	Town of Lake Lure	Capacity	February 2004	\$40,000
Rutherford	Town of Spindale	Capacity	February 2004	\$40,000
Polk	Town of Tryon	Capacity	August 2003	\$40,000
Polk	City of Saluda	Capacity	August 2003	\$40,000
Rutherford	Broad River Water Authority	Capacity	August 2003	\$26,500
Cleveland	Town of Polkville	Capacity	June 2003	\$10,000
Cleveland	Town of Grover	Capacity	August 2002	\$40,000
Polk	Town of Tyron	Capacity	August 2002	\$40,000

COUNTY	RECIPIENT	TYPE	YEAR ADMINISTERED	GRANT AMOUNT
Rutherford	Town of Forest City	Capacity	August 2002	\$40,000
Cleveland	Cleveland Co. Sanitary Dist.	Capacity	March 2002	40000
Cleveland	Town of Waco	Capacity	March 2002	\$20,000
Rutherford	Town of Lake Lure	Capacity	March 2002	\$40,000
Rutherford	Town of Ellenboro	Unsewered	August 2002	\$3,000,000
Total Funding				\$8,146,000

NORTH CAROLINA AGRICULTURE COST SHARE PROGRAM (ACSP)

The NC Agriculture Cost Share Program (ACSP) primarily addresses agriculture’s contribution to NPS pollution by encouraging voluntary participation by the agricultural community. This approach is supported by financial incentives, technical and educational assistance, research, and regulatory programs. BMPs that are supported by the ACSP include vegetative, structural, and/or management systems that can improve the efficiency of farming operations while reducing the potential for surface and ground water pollution. The Division of Soil and Water (DSWC) implements the ACSP. Table 14-5 lists total BMPs implemented throughout the Broad River basin. Table 14-6 lists the water quality benefits achieved through the ACSP. More information about the ACSP and the BMPs approved through the ACSP can be found on the [DSWC Web site](#).



TABLE 14-5: ACSP EXPENDITURES IN THE BROAD RIVER BASIN

PURPOSE OF BMP	TOTAL ACRES	TOTAL UNITS	TOTAL LINEAR FEET	TOTAL COST
Erosion Reduction	666		201	\$162,850
Sediment/Nutrient Delivery Reduction	3	7	725	\$64,806
Stream Protection from Animals	--	118	35,494	\$224,311
Proper Animal Waste Management	--	8	--	\$64,432
Agricultural Chemical Pollution Prevention	--	4	--	\$38,516
Totals	669	137	36,420	\$554,915

TABLE 14-6: ACSP WATER QUALITY BENEFITS IN THE BROAD RIVER BASIN

BENEFITS	TOTALS
Total Soil Saved (tons)	7,739
Total Nitrogen (N) Saved (lb.)	15,878
Total Phosphorus (P) Saved (lb.)	3,820
Total Waste-N Saved (lb.)	83,055
Total Waste-P Saved (lb.)	98,927

VOLUNTEER WATER INFORMATION NETWORK (VWIN)

The Volunteer Water Information Network (VWIN) is a partnership of groups as well as individuals dedicated to preserving water quality in western North Carolina. Organizations such as the Pacolet Area Conservancy (PAC), the Environmental Conservation Organization (ECO), the Town of Lake Lure, along with several others provide administrative support while the University of North Carolina of Asheville (UNCA) Environmental Quality Institute (EQI) provides technical assistance through laboratory analysis of water samples, statistical analysis of water quality results, and written interpretation of the data. Volunteers venture out each month to collect water samples from designated sites along streams and rivers throughout the region. The information gathered by these volunteers



then provides an accurate picture of water quality conditions, changes, and trends. This allows community leaders the ability to identify streams of high water quality that need to be preserved, as well as streams that are being impacted by land-disturbing or man induced activities. Monitored parameters include major nutrients, turbidity, suspended solids, pH, alkalinity, conductivity, and heavy metals such as zinc, copper, and lead (Patch *et al.*, 2006). Information collected in the Broad River basin is used to assess water quality throughout the mountains of western North Carolina. Factors such as population density, industrial development, topography, and land use patterns all impact water quality. These factors must be taken into consideration when comparing VWIN sites. With this comparison, local governments, nonprofit organizations, and individuals can compare areas with similar problems or successes (Westphal *et al.*, 2007; Patch *et al.*, 2006). Information exchange and comparisons can also lead to regional changes to land use management and planning.

The Town of Lake Lure and the PAC administer VWIN in Rutherford and Polk Counties. The Town of Lake Lure started the program in July 1996 in order to assess water quality conditions in streams flowing into Lake Lure. The program also provides continuous assessment of the lake. Continuous monitoring of the lake is vital to understanding the lake's cycles, and monitoring the headwater streams allows the community to pinpoint sediment and nutrient inputs before they enter the lake (Westphal *et al.*, 2007). The PAC started the program in April 1993. The program was named Stream Watch and now includes monitoring of 15 sites in the Pacolet River watershed (Patch *et al.*, 2006). More information about the VWIN program can be found on the [VWIN Web site](#) and in Chapters 1 (Broad River Headwaters) and 8 (Pacolet River).