

## Chapter 20

### Water Quality Initiatives

#### 20.1 The Importance of Local Initiatives

As the Basinwide Planning Program completes its third cycle of plan development, there are many efforts being undertaken at the local level to improve water quality. Information about local efforts particular to a watershed or subbasin is included in Chapters 1-10. DWQ encourages local agencies and organizations to learn about and become active in their watersheds.

An important benefit of local initiatives is that local people make decisions that affect change in their own communities. There are a variety of limitations local initiatives can overcome including: state government budgets, staff resources, lack of regulations for nonpoint sources, the rule-making process, and many others.

These local organizations and agencies are able to combine professional expertise in a watershed. This allows groups to holistically understand the challenges and opportunities of different water quality efforts. Involving a wide array of people in water quality projects also brings together a range of knowledge and interests, and encourages others to become involved and invested in these projects. 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 will potentially allow local entities to do more work and be involved in more activities because their funding sources are diversified. The most important aspect of these local endeavors is that the more localized the project, the better the chances for success.

The collaboration of these local efforts is key to water quality improvements. There are good examples of local agencies and groups using these cooperative strategies throughout the state. The following local organizations and agencies (Table 21) are highlighted to share their efforts towards water quality improvement. Specific projects are described in the subbasin chapters (Chapters 1–10).

DWQ applauds the foresight and proactive response to potential water quality problems acted upon by these local efforts. Federal and state government agencies are interested in assisting local governments and citizen groups in developing their water quality management programs. The distribution of several grantors is discussed in the following sections.





## **20.2 Federal Initiatives**

### **20.2.1 Clean Water Act – Section 319 Program**

Section 319 of the Clean Water Act provides grant money for nonpoint source demonstration and restoration projects. Approximately \$1 million is available annually through base funding for demonstration and education projects across the state. An additional \$2 million is available annually through incremental funding for restoration projects on impaired waters. All projects must provide non-federal matching funds of at least 40 percent of the project's total costs. Project proposals are reviewed and selected by the North Carolina Nonpoint Source Workgroup, made up of state and federal agencies involved in regulation or research associated with nonpoint source pollution. Information on the North Carolina Section 319 Grant Program application process is available online at [http://h2o.enr.state.nc.us/nps/application\\_process.htm](http://h2o.enr.state.nc.us/nps/application_process.htm).

There is one current project in the Roanoke River basin that has been funded through the Section 319 Program between 1999 and 2004. The project, 'Watershed Quality Improvement and Restoration Demonstration', is located in Warren County. This project was funded in fiscal year 1999 to the NC Division of Soil and Water Conservation for funding BMPs that will reduce sediment delivery to impaired waters. The BMPs are also designed to improve stream bank stability and prevent the off-site movement of pesticides, phosphorus, nitrogen, and fecal coliform.

Descriptions of projects and general Section 319 Program information are available at [http://h2o.enr.state.nc.us/nps/Section\\_319\\_Grant\\_Program.htm](http://h2o.enr.state.nc.us/nps/Section_319_Grant_Program.htm).

### **20.2.2 National Estuary Program**

Congress established the National Estuary Program and the Albemarle and Pamlico Sounds as an "Estuary of National Significance" in 1987. Section 320 of the Clean Water Act directs EPA to develop plans for attaining or maintaining water quality in the estuaries of national importance. This includes protection of public water supplies and the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife, and allows recreational activities, in and on water, requires that control of point and nonpoint sources of pollution to supplement existing controls of pollution.

Today, Albemarle-Pamlico National Estuary Program (APNEP) is implementing a Comprehensive Conservation and Management Plan (CCMP) that was developed by numerous stakeholders to meet the goals of Section 320. The CCMP was ratified by the NC Governor and accepted by the US EPA in 1994. Additional information is available online at <http://www.apnep.org>

### **20.2.3 National Wildlife Refuge System**

The Roanoke River National Wildlife Refuge (Refuge) is one of more than 540 National Wildlife Refuges found in the United States and its territories. The Refuge was established August 10, 1989 to protect and enhance wooded wetlands consisting of bottomland hardwoods and swamps with high waterfowl value along the Roanoke River. Administered by the U.S. Fish

and Wildlife Service, management emphasis is placed on federal trust species such as migratory birds, migratory fish and federally listed endangered and threatened species and their habitats. Presently, the Refuge consists of 20,978 acres. Refuge lands are located in Bertie County and begin in the vicinity of Hamilton, NC and extend to the mouth of the river in five separate tracts of land.

The Refuge staff has been involved with projects and activities designed to protect, conserve and restore the integrity of the plant, fish and wildlife communities found within the coastal plain reach of the Roanoke River Basin. Some of the studies and monitoring activities being carried out on refuge lands include: annual avian point surveys, monitoring wood duck productivity via wood duck boxes, wood duck banding, water quality monitoring, forest regeneration studies, forest health studies, Swainson's warbler productivity study and when warranted anadromous fish surveys.

A fifteen year Comprehensive Conservation Plan and Environmental Impact Statement has been completed for the Refuge and can be found online at: <http://www.fws.gov/southeast/planning/FinalDocs.htm>. The plan outlines management programs and activities for the Refuge for the next fifteen years.

## **20.3 State Initiatives**

### **20.3.1 Coastal Habitat Protection Plan**

Recognizing the need to both protect habitat and prevent over fishing, the North Carolina General Assembly passed the Fisheries Reform Act in 1997. The law contains the directive to protect and enhance habitats supporting coastal fisheries. The law requires cooperation among three rule-making commissions: Environmental Management Commission (EMC), Coastal Resources Commission (CRC), and Marine Fisheries Commission (MFC). Because the commissions must work together to develop, adopt, and implement plans to protect and restore fisheries habitats, the Coastal Habitat Protection Plan (CHPP) was developed by the Division of Marine Fisheries and adopted in early 2005. The Coastal Habitat Protection Plan was developed to:

1. document the ecological role and function of aquatic habitats for coastal fisheries;
2. provide status and trends information on the quality and quantity of coastal fish habitat.
3. describe and document threats to coastal fish habitat, including threats from both human activities and natural events;
4. describe the current rules concerning each habitat;
5. identify management needs; and
6. develop options for management action using the above information.

For more information regarding the CHPPs document visit: <http://www.ncfisheries.net/habitat/index.html>

### **20.3.2 North Carolina Ecosystem Enhancement Program**

The North Carolina Ecosystem Enhancement Program (NCEEP) is a nonregulatory program responsible for implementing wetland and stream restoration projects as part of a statewide effort

to provide more ecologically effective compensatory mitigation. The focus of the program is to restore, enhance and protect key watershed functions in the 17 river basins across the state through the implementation of wetlands, streams and riparian buffer projects within selected local watersheds *in advance of permitted impacts*. These vital watershed functions include water quality protection, floodwater conveyance & storage, fisheries & wildlife habitat, and recreational opportunities. The NCEEP is not a grant program. Instead, the program funds local mitigation projects directly through its various in-lieu fee receipts.

Through the development of ***River Basin Restoration Priorities*** (formerly called Watershed Restoration Plans), the NCEEP identifies local watersheds (14-digit Hydrologic Units) with the greatest need & opportunity for watershed mitigation projects. The ***RBRPs*** are developed, in part, using information compiled in DWQ's Basinwide Water Quality Plans and Basinwide Assessment Reports. Additional local resource data and locations of existing or planned watershed projects are considered in the selection of "Targeted Local Watersheds", which are identified and mapped within the ***RBRPs***. ***Targeted Local Watersheds*** represent those areas within a given river basin where NCEEP resources can be most efficiently focused for maximum benefit to local watershed functions. The NCEEP ***River Basin Restoration Priorities*** are periodically updated and presented on the NCEEP website: <http://www.nceep.net>.

The NCEEP can perform restoration projects cooperatively with other state or federal programs or environmental groups. For example, the NCEEP's efforts can complement projects funded through the Section 319 Program. Integrating wetlands or riparian area restoration components with Section 319-funded or proposed projects will often improve the overall water quality, hydrologic and habitat benefits of the project.

The NCEEP is also working to develop comprehensive **Local Watershed Plans**, often within Targeted Local Watersheds identified in the ***River Basin Restoration Priorities***. Through the Local Watershed Planning process, EEP conducts comprehensive watershed assessments to identify causes and sources of major functional problems in local watersheds, and then coordinates with local resource professionals and local governments to identify & implement watershed projects and management strategies designed to address these problems. NCEEP Local Watershed Plans identify and prioritize wetland areas, stream reaches, riparian buffer areas and best management practices that will provide water quality improvement, habitat protection and other environmental benefits to the local watershed. There are currently no active local watershed planning efforts in the Roanoke River basin.

EEP has also acquired several preservation tracts and is in the process implementing four restoration projects in the Roanoke basin. A substantial amount of wetland and stream preservation was obtained through EEP's High Quality Preservation initiative that took place during the program's transition period.

For more information about the NCEEP and its Watershed Restoration Plans, visit the NCEEP website at <http://www.nceep.net/>.

### 20.3.3 Clean Water Management Trust Fund

The CWMTF offers approximately \$40 million annually in grants for projects within the broadly focused areas of restoring and protecting state surface waters and establishing a network of riparian buffers and greenways. In the Roanoke River basin, 22 projects have been funded for a total of \$13,553,100 (Table 22) for 1997A-2005A. For more information on the CWMTF or these grants, call (252) 830-3222 or visit the website at [www.cwmtf.net](http://www.cwmtf.net).

Table 22 - Projects in the Roanoke River Basin Funded by the Clean Water Management Trust Fund (as of August 2005)

Project Number	Application Name	Proposed Project Description	Amount Funded	CWMTF Region	Subbasin
1997B-515	Stovall- Wastewater Collection System and Land Application	Construct wastewater collection & treatment system, will consist of pressure sewer collection system with spray irrigation treatment plant.	\$800,000	Eastern Piedmont/Central Coastal Plain	03-02-06
1998A-501	Stoneville- WWTP Elimination and Regionalization/Mayo River	Install pumping station to reroute wastewater from Town of Stoneville's WWTP to Town of Mayodan's facility. Decommission Stoneville WWTP.	\$643,000	Western Piedmont	03-02-02
1998B-009	Piedmont Land Conservancy- Acq/ Dan River Bends	Acquire through fee simple 393 ac along Dan River; includes additional permanent easements along 1.8 miles of the Dan River.	\$642,000	Western Piedmont	03-02-01
1998B-704	Plymouth- Constructed Wetlands/ Roanoke River	Construct 2 stormwater wetlands to treat runoff from 57 ac of heavily developed land. Develop urban greenway and berm/buffer system along 1200 ft on the Water Front Alley which would vary from 50 to 100 ft. Berm to route runoff to wetlands.	\$835,000	Eastern Piedmont/Central Coastal Plain	03-02-09
2000A-011	NC Wildlife Resources Commission - Pollocks Ferry Acq/ Roanoke R	Acquire through fee simple 2,588 ac along the Roanoke River and Conocannara Swamp; acquire 1136 acres of riparian buffers.	\$1,650,000	Eastern Piedmont/Central Coastal Plain	03-02-08
2000B-016	Piedmont Land Conservancy- Dan River Acq	Acquire 18.8 ac tract under conservation easement and reforest.	\$75,100	Western Piedmont	03-02-01
2000B-409	Roanoke Rs- Restoration Design & Restoration/Roanoke River Tributary	Design/construct natural channel stream restoration project along 1,400 feet of Lions Watch Ck.	\$617,000	Eastern Piedmont/Central Coastal Plain	03-02-08

2000B-601	Askeville- Sewage Collection System Construction	Design/construct sewer collection system for 120 units (failing septic systems of straight pipes). Convey collected wastewater to Windsor's permitted WWTP.	\$705,000	Eastern Piedmont/Central Coastal Plain	03-02-10
2000M-002	Piedmont Land Conservancy- Moretz Acq Minigrant	Minigrant for preacquisition costs for 18.8 acres.	\$25,000	Western Piedmont	03-02-01
2001A-512	Roxboro- Infiltration and Inflow & Sewer Line Upgrade	Replace 6,700 LF of gravity sewer to eliminate infiltration/ inflow along Marlowe Creek and develop/adopt ordinance(s) to nonpoint source pollution, and buffer protection.	\$708,000	Eastern Piedmont/Central Coastal Plain	03-02-05
2001B-037	NC Wildlife Resources Commission - Acquisition/ Johnson Tract/ Caswell Gamelands/ South Country Line Creek	Acquire through fee simple 71 acres along South Country Creek.	\$57,000	Eastern Piedmont/Central Coastal Plain	03-02-04
2001B-703	Gaston - Stormwater Design/ Lee Creek	Provide funds to design settling ponds and covered drain culverts to reduce erosion and stormwater runoff into Lee Creek.	\$20,000	Eastern Piedmont/Central Coastal Plain	03-02-08
2002A-801	Concerned Citizens of Tillery - Landowner Outreach/ Roanoke R.	Conduct a planning project to identify appropriate lands for protection along Conconnara Swamp.	\$42,000	Eastern Piedmont/Central Coastal Plain	03-02-08
2002B-803	Piedmont Land Conservancy- Planning/Upper Dan R.	Establish sediment monitoring stations on 30 sites in portions of the Dan River drainage; protect 285 riparian areas along tribs through donated easements. Develop a watershed plan.	\$160,000	Western Piedmont	03-02-01
2003A-604	NCSU - Septic Tanks/ Sertoma 4-H Center, Vade Mecum Creek	Design, permit and construct on-site wastewater treatment and disposal system to replace failing system. Includes donated easement on 142 riparian acres.	\$232,000	Western Piedmont	03-02-01
2003M-003	Piedmont Land Conservancy- Minigrant - Len's Knob	Minigrant to pay for transactional costs for fee simple of 2240 acres in Surry County on the Upper Mitchell River.	\$25,000	Western Piedmont	03-02-01
2004B-042	NC Wildlife Resources Commission-Acq/ Cashie River Tracts	Protect through fee simple 1,475 floodplain acres along the Cashie River.	\$440,000	Eastern Piedmont/Central Coastal Plain	03-02-10



Table 22 continued

2004B-044	NC Wildlife Resources Commission-Acq/Hodges/Barker Tract, Country Line Creek	Protect through fee simple 255 acres along Country Line Creek. CWMTF funds to purchase the riparian 95 acres.	\$193,000	Eastern Piedmont/Central Coastal Plain	03-02-04
2004B-507	Halifax, Town of - WW/ Regionalization, Collection Rehabilitation, Quankey Creek	Decommission Town's WWTP and eliminate 50,000 gpd discharge to Quankey Creek. Waste routed to Town of Weldon's WWTP. Project includes replacement or repair of 18,609 LF of collection lines and rehabilitation of a pump station.	\$2,297,000	Eastern Piedmont/Central Coastal Plain	03-02-08
2004B-512	Littleton, Town of - WW/ Collection System and Pump Station Rehabilitation, Little Stonehouse Creek	Rehabilitate Littleton's existing wastewater collection system (34,000 LF), replace 1,500 LF, repair 118 manholes, and construct 2 new pump stations. Will reduce contamination of Little Stone House Creek, Lake Gaston, Butterwood Br and Little Fishing Ck.	\$2,738,000	Eastern Piedmont/Central Coastal Plain	03-02-07
2005A-004	Fishing Creek SWC District - Acq/ Iles Farm, Roanoke Rapids Lake	Protect through working forest easement a 183-acre dairy farm on tributaries to Roanoke Rapids Lake. CWMTF funds to purchase easement on 71 riparian acres. The USDA Farmland and Ranchland Preservation Program to provide matching funds.	\$208,000	Eastern Piedmont/Central Coastal Plain	03-02-07
2005A-027	Piedmont Land Conservancy - Acq/ Berry Tract, Hyco Lake	Protect 321 acres, including 168 riparian acres, along Hyco Lake and tributaries through purchase of a conservation easement.	\$441,000	Eastern Piedmont/Central Coastal Plain	03-02-05

## Notes:

- (1) The total funded amount excludes funded projects that were subsequently withdrawn by the applicant.
- (2) Two regional and statewide projects were funded in areas that include the Roanoke Basin. These projects include riparian corridor planning and implementation activities and a freshwater mussel relocation program..

### 20.3.4 NC Construction Grants and Loans Programs

The NC Construction Grants and Loans Section provides grants and loans to local government agencies for the construction, upgrades 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 NC. 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 later two being below market revolving loan money. In the Roanoke River basin, 9 applicants received a total of \$29,478,672 in grants and loans from these programs (Table 23).

As a technical resource, the Construction Grants and Loan Section, in conjunction with the Environmental Protection Agency, 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 website at <http://www.nccgl.net/>. You may also call (919)-715-6212 or email [Bobby.Blowe@ncmail.net](mailto:Bobby.Blowe@ncmail.net).

Table 23 - NC Construction Grants and Loans Programs disseminated within the Roanoke River Basin

Program	Applicant	Project #	Offer Date	Project Description	Loan/Grant Offered (\$)
SRF <sup>1</sup>	Henderson	CS370410-04	6/19/92	WWTP improvements, including phosphorus removal	2,500,000
SRF <sup>1</sup>	Williamston	CS370435-04	8/5/99	Upgrade and expansion to 2.4 MGD	7,000,000
SRF <sup>1</sup>	Mayodan	CS370466-04	11/19/02	Mayodan expansion 3.0 to 4.5 MGD, Regional facility for Madison and Stoneville	5,500,000
SRF <sup>1</sup>	Plymouth	CS370500-04	5/6/98	WWTP upgrades	1,968,500
SRF <sup>1</sup>	Rockingham County	CS370793-01	10/20/98	Construction of gravity sewer, force mains and pumping stations	4,302,532
SRF <sup>1</sup>	Stokes County	CS370813-01	8/3/94	New package WWTP and collection system	1,200,000
STAG <sup>2</sup>	Henderson	XP-97440302	5/18/04	Sewer extension to the Mills River area	2,884,700
SEL <sup>3</sup>	Roxboro	E-SEL-T-00-0033	5/23/01	Sewer rehabilitation	400,000
SRL <sup>4</sup>	Rich Square	E-SRL-T-95-0030	1/18/96	WWTP improvements	500,000
SRG <sup>5</sup>	Granville County	E-SRG-T-00-0103	3/6/02	New Sewer to Stovall	223,000
SRG <sup>5</sup>	Rich Square	E-SRG-T-02-0126	4/14/04	Sewer rehabilitation and spray irrigation system	2,999,940

1 - SRF – Clean Water State Revolving Fund (SRF) Program

2 - STAG – State and Tribal Assistance Grants

3 - SEL – State Emergency Loan Program

4 - SRL – State Revolving Loan Program

5 - SRG – High Unit Cost Grant Program

### 20.3.5 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. 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 and expanding 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 development 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 maximum grant amount is \$400,000 and must be used to match other project funds. 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 maximum grant amount is \$400,000. 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 ([www.nccommerce.com](http://www.nccommerce.com)).

The water and sewer grants listed above are made possible through appropriations from the NC General Assembly and through proceeds from the Clean Water Bonds. In 1998, North Carolina voters approved an \$800 million clean water bond referendum that provided \$330 million to state grants to help local governments repair and improve water supply systems and wastewater collection and treatment. The grants also address water conservation and water reuse projects. Another \$300 million was made available as clean water loans.

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 24 lists the grants that were awarded in the Roanoke River Basin between 1999 and 2005. For more information on the Water and Sewer Grants administered by the Rural Center visit [www.ncruralcenter.org/grants/water.htm](http://www.ncruralcenter.org/grants/water.htm).

### **20.3.6 Virginia Roanoke River Basin Advisory Committee (VRRBAC) and the Roanoke River Basin Bi-State Commission**

The Virginia Roanoke River Basin Advisory Committee (VRRBAC) was established in the executive branch of state government as an advisory committee to the Virginia delegation to the Roanoke River Basin Bi-State Commission. The Roanoke River Basin Bi-State Commission was established and composed of members from the Commonwealth of Virginia and the State of North Carolina. The purpose of the Commission in short is to safeguard the Roanoke River Basin's natural resources for the citizens of the Roanoke River Basin. This duty includes providing guidance, making recommendations, identifying problems, disseminating information, and promoting communication, coordination, and education among stakeholders. NC has passed similar legislation. The advisory committees of both States assist the Roanoke River Basin Bi-State Commission fulfilling its responsibility.

Table 24 - Clean Water Bonds Awarded in the Roanoke River Basin

County	Recipient	Grant Amount	Grant Type	Year Awarded
Halifax	Roanoke Rapids Sanitary Dis.	\$40,000	Capacity	August 2004
Rockingham	City of Eden	\$40,000	Capacity	February 2004
Bertie	Town of Kelford	\$31,000	Capacity	August 2002
Halifax	Town of Halifax	\$40,000	Capacity	August 2002
Rockingham	City of Eden	\$40,000	Capacity	August 2002
Martin	Town of Williamston	\$40,000	Capacity	March 2002
Rockingham	City of Eden	\$40,000	Capacity	March 2002
Bertie	Town of Windsor	\$40,000	Capacity	August 2001
Caswell	Town of Yanceyville	\$21,000	Capacity	August 2001
Rockingham	Town of Stoneville	\$40,000	Capacity	August 2001
Washington	Town of Plymouth	\$40,000	Capacity	February 2001
Bertie	Town of Askewville	\$36,400	Capacity	December 1999
Rockingham	Town of Mayodan	\$20,000	Capacity	December 1999
Bertie	Town of Windsor	\$400,000	Supplemental	February 2004
Halifax	Town of Weldon	\$400,000	Supplemental	February 2004
Granville	Town of Stovall	\$400,000	Supplemental	June 2003
Martin	Town of Jamesville	\$200,000	Supplemental	August 2001
Rockingham	Town of Madison	\$400,000	Supplemental	August 2001
Washington	Town of Plymouth	\$400,000	Supplemental	February 2001
Martin	Hamilton	\$198,560	Supplemental	August 2000
Halifax	Roanoke Rapids	\$150,000	Supplemental	April 2000
Caswell	Yanceyville	\$200,000	Supplemental	February 2000
Rockingham	Mayodan	\$200,000	Supplemental	February 2000
Bertie	Town of Windsor	\$185,396	Supplemental	December 1999
Halifax	Town of Halifax	\$64,135	Supplemental	December 1999
Bertie	Askewville	\$2,739,500	Unsewered	August 2000
Caswell	Milton	\$1,307,000	Unsewered	August 2000

A goal of VRRBAC is to open channels of communication. The Committee meets throughout the Roanoke basin in an effort to be available to all basin constituents. It is important that dialogue take place, which is representative of all areas of the basin. There must be rural and urban cooperation on water issues. Speakers representing various groups, State Agencies, Local Governments, different geographic areas, and interests have addressed VRRBAC. Localities and State entities have provided meeting facilities for the meetings. Such participation demonstrates that VRRBAC has strong partnerships in the region, which helps in carrying out the work of the Committee. Broad public support of policy and regional consensus is the best way to bring about positive change associated with environmental and related health issues. Better efficiency of protection efforts will result as all partners, public, private, federal, state, and local officials, can share and leverage resources. Such coordination and consensus building in the entire basin

on watershed management issues is essential to sound watershed decision making and management. Sub-committees have been given direction to promote such an effort using broad-based input consolidated from as many interested parties as possible.

The sub-committees formed are Agriculture and Forestry, Lake Interests, Municipal Interests and Permit Holders, River Interests, and Water. The sub-committees are to prepare position papers on important issues and bring them back to the full Committee for adoption. An effort is being made to bring the most knowledgeable people possible to the table, where the work must take place. The objective is to obtain membership that will represent stakeholders throughout the basin and maintain a geographical and urban/rural balance.

Since the inaugural meeting of VRRBAC certain characteristics and issues of the basin have become evident. The importance of natural resources to the economic vitality of the Basin is apparent. People reside in and come to the Roanoke River Basin area to pursue various interests including vacation, lifestyle, esthetics, boating, fishing, etc. These activities and personal values help drive the economic engine of the local and regional area. In addition, agriculture is vital to the region's lifestyle and economy. Clean water and ample flow and supply are recognized as essential to existing beneficial uses and future economic development. There are interrelationships within the basin involving flow, as events in one section of the basin can impact other parts. Environmental, ecosystem, human health, power generation, aquatic life, and economic needs of the basin must be balanced. The generally good water quality of the Roanoke basin is valued and must be preserved. Issues and topics which are crucial to the well-being of the basin people include 1.) inter-basin transfer of water, 2.) water withdrawals, 3.) regulation of flow and storage, 4.) invasive species, 5.) recreation and fishing, 6.) water quality and 7.) lake vitality.

VRRBAC has adopted several positions regarding the Basin's natural resources. It supports the implementation of BMPs and other strategies such as Low Impact Development (LID) and Nutrient Management Plans to correct pollution problems. VRRBAC favored the development of a Virginia State-wide Water Policy, but only one that mandated local stakeholder input and was against the inter-basin transfer of water that is detrimental to the people of the basin. VRRBAC is opposed to any new water withdrawal until such time that the real and potential needs for the foreseeable future are determined. For more information please see the VRRBAC website. <http://www.deq.virginia.gov/vrrbac/>