

Section C

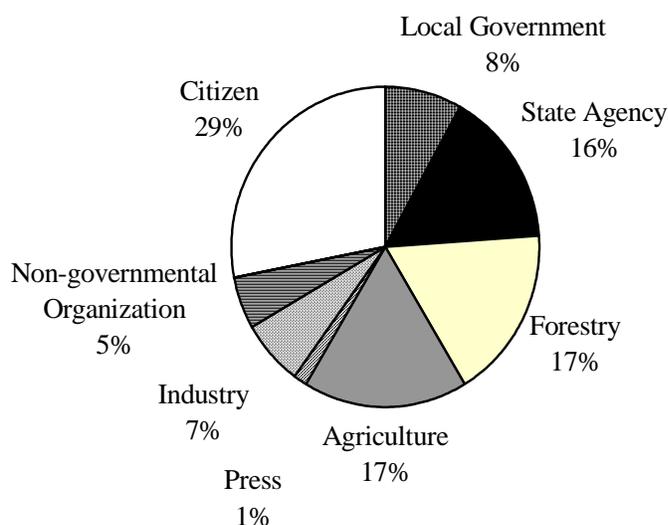
Current and Future Water Quality Initiatives

Chapter 1 - Current Water Quality Initiatives

1.1 Workshop Summaries

Two workshops were held in the Chowan River basin in Edenton and Ahoskie in March 2001. The Albemarle-Pamlico National Estuary Program's Chowan Regional Council and the NC Cooperative Extension Service sponsored the workshops. There were 75 people in attendance representing a wide variety of interests.

Chowan River Basin Workshops 2001



DWQ staff gave presentations about basinwide planning and an overview of recommendations in the 1997 plan and what has been accomplished since. Representatives from other state agencies and several local initiatives spoke, including the Wetlands Restoration Program, the Albemarle-Pamlico Citizen's Water Quality Monitoring Program, Chowan College's Monitoring Program, Arrowhead Beach's Monitoring Program, and the Albemarle-Pamlico National Estuary Program's Chowan Regional Council. In addition to the presentations, several local initiatives shared information about their programs through written materials. Workshop attendees were asked to discuss the following questions in small groups:

- 1) *What are the main threats to water quality in the basin?*
- 2) *Where are the problem areas or waters? And what recommendations do you have for addressing these problem areas/waters?*
- 3) *Who should address the problems? (i.e., local agencies, organizations, etc.)*

The discussion on these questions was very productive. Comments and responses were recorded. A general summary providing common ideas and viewpoints expressed by more than one group is presented below. DWQ considered these comments while drafting the revised Chowan River Basinwide Water Quality Plan and will continue to use these comments to guide water quality activities in the Chowan River basin. Detailed workshop notes are included as Appendix V.

Important Issues Basinwide

At the public workshops, the public had the opportunity to list some water quality concerns that they had regarding the Chowan River basin. Some of the concerns were basinwide rather than subbasin specific (Table C-1).

Table C-1 Basinwide Concerns Voiced at the Chowan River Basin Public Workshops

Issue	Recommendation	Responsible Party
◆ Bank Erosion	◆ Explore, look into alternatives to hard stabilization	◆ NCSU ◆ CAMA
◆ Agriculture BMP Effectiveness determination	◆ Continue forest BMPs and forest practice guidelines ◆ Monitoring ◆ Continue cost share programs and fine tune them ◆ Provide tax credit for no-till equipment - expand and increase	◆ NC Forest Service ◆ DWQ ◆ NRCS ◆ Soil & Water ◆ FSA ◆ NC State Government
◆ Address septic systems/land application	◆ Education ◆ Continue to look at alternative systems ◆ Provide financial assistance for repairs ◆ Require pumpout (i.e., every 5 years) ◆ State of NC is forcing municipalities to install land application sites without much support for success or flexibility to make it work.	◆ Health Department ◆ NC Cooperative Extension Service (NCES) ◆ County Government
◆ Riparian Vegetation	◆ Buffers between development at waterside and waters ◆ Not allowing a landowner to trim trees within 50 feet of river even when the river is 2 miles wide and water temperature is not affected.	◆
◆ Out board motors traffic and impacts	◆ Learn more about this issue – especially EPA’s new emission standards ◆ Education	◆ EPA

Please refer to Section A, Chapter 4 for discussion of some of these issues. All groups commented that nonpoint source pollution; primarily from failing septic systems, changes in land use, or agricultural inputs; was a major threat to water quality in the Chowan River basin.

1.2 Federal Initiatives

1.2.1 Clean Water Act – Section 319 Program

Section 319 of the Clean Water Act provides grant money for nonpoint source demonstration projects. Approximately \$1 million is available annually for demonstration and education projects across the state. 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, including application deadlines and requests for proposals, are available online at <http://h2o.enr.state.nc.us/nps/bigpic.htm>.

Chowan Nonpoint Source Team

A water quality project was funded through the Section 319(h) grant in 1998. The Chowan Nonpoint Source (NPS) Team headed the project. The project seeks to evaluate the potential water quality benefits of a variety of best management practices (BMPs) which could be incorporated into row-crop agriculture, septic systems and municipal waste systems. The BMPs focus on reducing nutrients, sometimes associated with sediment runoff into waters. The following activities were accomplished through the project:

- 1000 acres of cotton converted from conventional management to cover cropping and/or reduced tillage.
- Implementation and evaluation of 1000 feet of field borders in conjunction with and without animal waste applications for sediment and nutrient reduction.
- Implementation and evaluation of one poultry litter dry stack storage structure for nutrient reduction.
- Adoption and utilization of weather monitoring to assist in forecasting leafspot disease for peanuts.
- Conducted two training sessions for agricultural agents, one each for row crops and animal waste management. Conducted six education meetings for agricultural producers, three each for row crops and animal waste management. Conducted one community meeting for nonagricultural issues.

For more information on the Section 319 program, contact the DWQ Planning Branch Nonpoint Source Planning Unit at (919) 733-5083 or visit the program's website at <http://h2o.enr.state.nc.us/nps/bigpic.htm>.

1.3 State Initiatives

1.3.1 NC Agriculture Cost Share Program

The North Carolina Agriculture Cost Share Program was established in 1984 to help reduce the sources of agricultural nonpoint source pollution to the state's waters. The program helps owners and renters of established agricultural operations improve their on-farm management by using Best Management Practices (BMPs). These BMPs include vegetative, structural or management systems that can improve the efficiency of farming operations while reducing the potential for surface water and groundwater pollution. The Agriculture Cost Share Program is a voluntary program that reimburses farmers up to 75 percent of the cost of installing an approved BMP. The cost share funds are paid to the farmer once the planned control measures and technical specifications are completed. The annual statewide budget for BMP cost sharing is approximately 6.9 million.

Many farmers in the Chowan River basin have taken advantage of funding through the Agriculture Cost Share Program to install BMPs. From 1995 to 2000, approximately \$1,942,634 was dedicated to efforts in the Chowan River basin (Figure C-1).

Some of the Agriculture Cost Share projects provided partial or full funding toward:

- Queen’s Creek- Shad Project
- Town of Edenton Wetlands Project behind Hospital on Granville Street
- Filbert's Creek/Pembroke Creek/Edenton Bay - Albemarle RC&D/NRCS/NCSU Project
- Edenton Airport/Bayliner Boat Site Wetland and Swamp Restoration

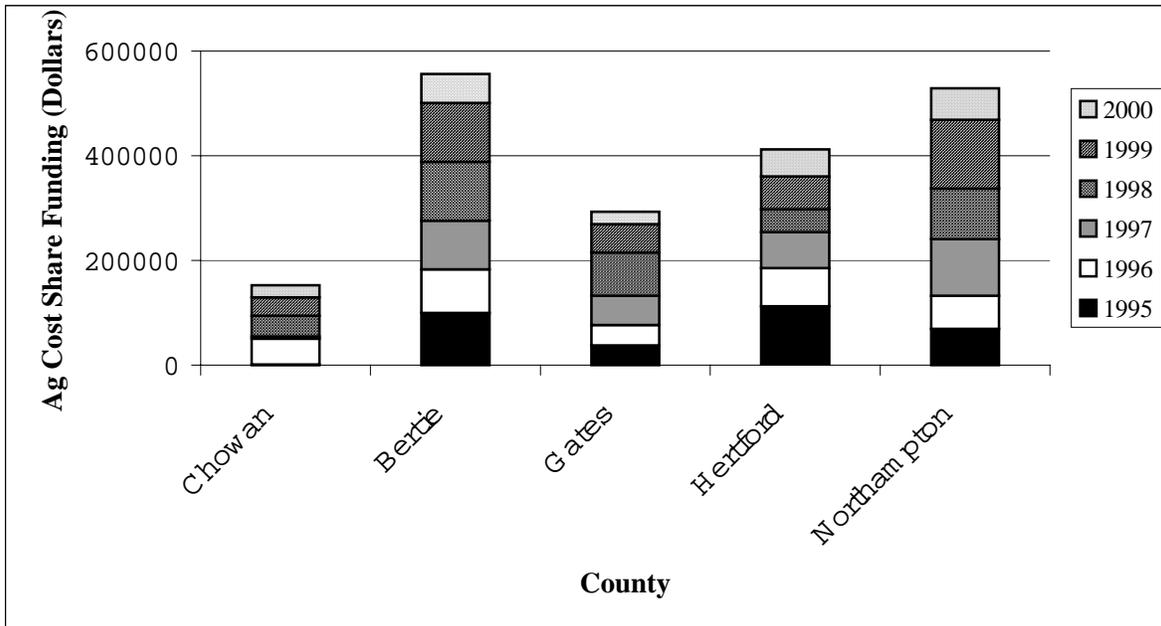


Figure C-1 Agriculture Cost Share Program Dollars Expended (1995-2000) in Counties in the Chowan River Basin (Source: NC Division of Soil and Water Conservation)

Some of the county lines cross multiple river basins; therefore, some of the expenditures in Gates, Chowan, Bertie and Northampton counties may be due to projects in the Roanoke or Chowan River basins.

Soil and Water Conservation District contacts for the Chowan River basin are included in Appendix VI or visit the website at <http://www.enr.state.nc.us/DSWC/files/acs.htm> for more information.

1.3.2 NC Division of Water Quality and NC Division of Coastal Management Collaboration

North Carolina’s Division of Coastal Management (DCM) and the Division of Water Quality (DWQ) share similar goals regarding water quality, and each program recognizes the value of enhanced coordination in accomplishing program missions. In an effort to enhance coordination, the two programs have agreed to work towards many improved collaborative efforts. These

efforts are intended to increase communication through periodic updates, increased review of each other's work products, and joint efforts to provide guidance and technical support between local land use planning programs and basinwide water quality planning.

Some of the agreements include the following:

- DCM will provide written annual updates to DWQ on all types of permit activities occurring in the coastal region when the CAMA Permitted Activities Database is operational. Until that time, DCM will provide file access to any DWQ staff to compile the data themselves. This information will inform DWQ of potential impending cumulative effects of permits issued through CAMA.
- DWQ will periodically contact DCM district offices to relay information and gain feedback about the development or implementation of basinwide water quality plans.
- DWQ will discuss the draft basinwide water quality plan with DCM during the public review phase before soliciting the EMC's endorsement.
- DWQ will provide water quality use support methodology updates to DCM staff.
- DCM and DWQ to discuss the information provided to local land use planners (i.e., data packet, water quality designation information, etc.) on an annual basis.
- DCM to update DWQ periodically on local land use plan certifications.
- DCM to update DWQ on incremental reviews of local land use plan implementation pending recent regulation amendments.
- DCM and the CRC should encourage local governments to participate in the Basinwide Planning Program throughout its planning cycle. DCM will share local governments' contact information with DWQ and distribute DWQ programmatic information. DCM staff will also attend basinwide planning workshops and public meetings to the extent they can.
- DCM will provide a list to DWQ of each local government updating its land use plan at least annually. DWQ will provide each local government updating its plan a summary of the applicable water quality and basinwide plan information contained within that local government's jurisdiction. DWQ will provide the information based on the DWQ basinwide planning scale.
- DWQ will incorporate or at least acknowledge applicable local policies contained in certified local land use plans in the development of the respective basinwide plans. In Section C of the basinwide plans, DWQ will identify those local governments that have developed or implemented programs directed toward water quality restoration or protection.
- DWQ will review all draft local land use plans, provide comments to DCM within 30 days identifying potential problem areas, make suggestions for improvements, and identify violations or potential violations of water quality regulations.
- DCM will update DWQ periodically on the status of permitting analysis/cumulative and secondary impacts assessment. DCM and DWQ will work cooperatively to determine the Permitted Activities database query needs. Once the permit tracking system is operational, DCM will provide access for DWQ to conduct queries.
- DCM and DWQ will discuss the information provided in the *Reviewer's Guide for the Consideration of Cumulative and Secondary Impacts of Proposed Development in NEPA/SEPA Documents* specifically related to coastal water quality.
- DCM and DWQ to discuss DCM's guidelines for assessing and mitigating cumulative and secondary impacts during the CAMA permitting process.

For more information, contact the DWQ Planning Branch at (919) 733-5083.

1.3.3 NC Wetlands Restoration Program

The North Carolina Wetlands Restoration Program (NCWRP) is a nonregulatory program responsible for implementing wetland and stream restoration projects throughout the state. The major goal of the NCWRP is to restore or improve the vital functions provided by wetlands, streams, and riparian buffer zones within the context of local watershed management and overall aquatic ecosystem health. These vital functions include water quality protection, erosion control, flood prevention, fisheries and wildlife habitat, and recreational opportunities. The NCWRP is not a grant program. Instead, it funds wetland, stream and riparian zone projects directly through the Wetlands Restoration Fund.

Restoration sites are targeted through the development and use of Watershed Restoration Plans (formerly called "Basinwide Wetland and Riparian Restoration Plans"). These plans are developed, in part, using information compiled in DWQ's Basinwide Water Quality Plans and Basinwide Assessment Reports. The NCWRP Plans evaluate resource data and existing water quality initiatives within local watersheds in order to select "Targeted Local Watersheds". Targeted Local Watersheds are areas with the greatest need and opportunity for stream and wetlands restoration efforts, and where NCWRP resources can be most efficiently focused for maximum restoration benefit. The NCWRP Watershed Restoration Plans are updated every five years, generally on the same timeline as DWQ's Basinwide Water Quality Plans.

The NCWRP is also working to develop comprehensive Local Watershed Plans within selected high priority hydrologic units across the state. These locally focused plans will identify candidate sites for wetlands or stream restoration projects, in addition to providing a collaborative forum for the development of a comprehensive package of water quality protection practices.

The NCWRP can perform restoration projects cooperatively with other state or federal programs or environmental groups. For example, the NCWRP's efforts can complement projects funded through the Section 319 Nonpoint Source Program. Integrating wetlands and riparian restoration components with 319-funded and/or Clean Water Management Trust Fund projects will often optimize the overall water quality benefits within a given watershed.

The NCWRP actively seeks landowners [both public and private] within the Chowan River basin who potentially have restorable stream, wetland or riparian buffer sites.

Table C-2 lists the NCWRP's targeted Local Watersheds in the Chowan River basin. Further details about these watersheds are provided in the appropriate subbasin chapter in Section B.

Table C-2 Wetlands Restoration Program Targeted Local Watersheds (2000)

Subbasin	Targeted Local Watershed Name(s)	Targeted Local Watershed Number(s)*
03-01-01	Ahoskie Creek	03010203050011
03-01-01	Chowan River	03010203030020
03-01-01	Lower Ahoskie Creek	03010203050030
03-01-01	Wiccacon River	03010203060040
03-01-02	Upper Potecasi Creek	03010204210010
03-01-02	Cutawhiskie Swamp	03010204200010
03-01-02	Lower Potecasi Creek	03010204210030

* The numbers listed are the last five digits of the 14-digit Hydrologic Unit (HU) for each Local Watershed.

For more information about participating in the NCWRP, please call (919) 733-5208) or visit the DWQ website at <http://h2o.enr.state.nc.us/> (click on Wetlands Restoration Program).

1.3.4 Clean Water Management Trust Fund

The Clean Water Management Trust Fund 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 Chowan River basin, four projects have been funded for a total of \$5,378,810. The largest amount of funding (\$3,285,810) was for restoration of water quality in the Edenton area. Table C-3, outlines the projects.

Table C-3 Projects in the Chowan River Basin Funded by the Clean Water Management Trust Fund (as of April 2001)

Stream or Watershed	Project	Project Lead	Amount Funded
Edenton Area	Restoration	Edenton	\$3,285,810
	Stormwater	Edenton Chowan Development Corporation	\$880,000
	Wastewater	Murfreesboro	\$176,000
	Wastewater	Seaboard	\$1,037,000

For more information on the CWMTF or these grants, call (252) 830-3222 or www.cwmtf.net.

1.3.5 Coastal Nonpoint Pollution Control Program

The goal of the CNPCP is to strengthen the links between federal and state coastal zone management and water quality management programs and to enhance state and local efforts to manage land use activities that degrade coastal waters and habitats. As required by the federal mandate, the CNPCP must implement, where necessary, the management measures identified by

the federal agencies that address various sources of nonpoint source pollution. Detailed descriptions of the management measures, where they are intended to be applied, their effectiveness, and their costs can be found in EPA's *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters* at the following website at <http://www.epa.gov/owow/nps/MMGI/>.

The CNPCP will develop a 15-year strategy to ensure implementation of the applicable management measures to protect and restore water quality. The immediate and primary focuses of the program will be on improving and protecting the quality of shellfishing waters; increasing the awareness of coastal nonpoint source related issues in the state; and providing resources that enable the improvement of the water quality component of DCM's Local Land Use Plans.

For additional information on the program, contact the DWQ Planning Branch Nonpoint Source Unit at (919) 733-5083.

The North Carolina Coastal Nonpoint Pollution Control Program (CNPCP) is a federally mandated program that is administered jointly by the NC Department of Environment and Natural Resource's Division of Water Quality and Division of Coastal Management. The National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) administer the Program jointly at the federal level. North Carolina is currently seeking final approval of its program from NOAA and EPA.

1.3.6 Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP), a federal and state partnership, aims to improve water quality and wildlife habitat by reducing pollutants entering surface waters. The five-year, \$274 million program which began in March 1999 has a goal of enrolling 100,000 acres of crop and pastureland in four Nutrient Sensitive Waters watersheds: Chowan, Tar-Pamlico, Neuse and Jordan Lake. North Carolina's funding comes from the Clean Water Management Trust Fund, North Carolina's Wetlands Restoration Program and North Carolina's Agriculture Cost Share.

In an effort to improve water quality and to take out marginally productive farmland, CREP targets: farmland that has been cropped for two of the last five years or marginal pastureland; and areas adjoining a creek, stream, river, ditch or wetland.

Landowners can enroll in term or permanent easements, both of which may be potentially eligible for state tax credits, federal tax deductions and cost share funding.

Some BMPs that occur on these lands include: riparian forested buffers, grass filter strips, hardwood tree planting and wetland restoration. In the Chowan River basin, there have been several projects placing lands in the CREP program including: Northampton County (1349 acres), Hertford County (118acres) and Gates County (278 acres).

For more information on the CREP program, contact a CREP Specialist at (919) 715-6107 or visit the program's website at <http://www.enr.state.nc.us/DSWC/files/crepmain.htm>.

1.3.7 Albemarle-Pamlico National Estuary Program

The Albemarle-Pamlico National Estuary Program (APNEP), formerly known as the Albemarle-Pamlico Estuarine Study (APES), was among the first National Estuary Programs established by the EPA in 1987. The mission of the APNEP is to identify, restore and protect the significant resources of the Albemarle-Pamlico estuarine ecosystem. Unlike traditional regulatory approaches to environmental protection, the APNEP is a cooperative effort jointly sponsored by NCDENR and the EPA that targets a broad range of issues and engages local communities in the process.

The program focuses not just on improving water quality in the region's estuaries, but on maintaining the integrity of the whole system - its chemical, physical and biological properties, as well as its economic, recreational and aesthetic values. Important components of the APNEP are the consideration of water quality, fisheries resources, land and water habitats, and the interaction of humans with the natural resources of the estuarine system. The APNEP is designed to encourage local communities to take responsibility for managing the resources in their respective jurisdictions.

Comprehensive Conservation and Management Plan

Since 1987, research generated by the APNEP has been instrumental to the development of a Comprehensive Conservation and Management Plan (CCMP). This plan is composed of recommendations for management strategies that address concerns in the Albemarle-Pamlico Sounds region and to protect the system's estuarine resources.

During the development of the CCMP, the APNEP was guided by a 95-member Management Conference that represented diverse interests. Four committees were responsible for identifying problems in the estuarine system, generating research where gaps in knowledge existed, increasing public awareness of environmental issues, and finding solutions to address those issues. As a result of these efforts, more is known about the Albemarle-Pamlico estuarine system than ever before.

CCMP Development Involved Diverse Interests Including:

- Federal and state government
- University researchers
- Environmental groups
- Agriculture representatives
- Forestry interests
- Industry representatives
- Developers
- Fishers
- Local elected officials

One of the recommendations of the CCMP was to develop regional councils in each of the five major river basins of the Albemarle-Pamlico watershed for the purpose of fostering public input into the APNEP program. In 1995, an Executive Order was issued by the Governor of North Carolina calling for the creation of these regional councils. The Chowan River Basin Regional Council is highlighted below.

Currently, the APNEP is administered and staffed by DWQ; however, staff works closely with the EPA's Office of Water to implement the many objectives and key management actions contained in the APNEP's CCMP.

Chowan River Basin Regional Council

Each regional council is comprised of elected and appointed county and municipal officials, representatives from agriculture, silviculture, commercial and recreational fishing, conservation, environmental science, business/industry and tourism groups. Each council is charged with identifying and implementing a project that utilizes innovative or unique management strategies to address a priority watershed problem. Regional councils provide a forum for public, special interest and local government involvement in the APNEP.

The Chowan River Basin Regional Council (CRBRC) has been active, meeting approximately four times per year. Highlights of accomplishments thus far include:

- Invited a Nucor representative as a member of the Chowan Regional Council. A major focus of the council remains with the siting and operation of the Nucor steel recycling facility located on the banks of the Chowan River.
- Toured the Nucor facility.
- Discussed the development of Coastal Habitat Protection Plans for the Chowan River basin and the Coastal Ocean with Division of Marine Fisheries' Coastal Habitat Protection Plan staff.
- Discussed the development of the 2002 Chowan River Basinwide Water Quality Plan with the DWQ basin planner.
- Co-sponsored public workshops conducted by DWQ regarding development of the 2002 Chowan River Basinwide Water Quality Plan.
- Provided input into an updated directory of NC and VA agency contacts with assistance from APNEP/VADCR liaison.

Interstate Collaboration Efforts

North Carolina and Virginia have jointly funded a Watershed Field Coordinator position to facilitate discussions regarding the Albemarle, Chowan and Coastal Watersheds. The position aims to:

- Facilitate and foster coordination and communication between Virginia's Watershed Roundtables and NC's River Basin Regional Councils.
- Compile information from local jurisdictions that will aid in the Albemarle Pamlico National Estuary Program's Comprehensive Conservation and Management Plan's work plans, targeting and monitoring of progress.
- Assist in preparing regionally targeted fact sheets, news releases and other articles for publishing purposes.
- Assist with event planning and facilitation.
- Work closely with DWQ basin planners regarding specific informational needs to be included in the basinwide plans for the Chowan River basin.

For more information on the Watershed Field Coordinator's activities, call (757) 925-2468. For more information on the Albemarle-Pamlico National Estuary Program, call (919) 733-5083 or visit the program's website at <http://h2o.enr.state.nc.us/nep/>.

1.3.8 Citizens' Water Quality Monitoring Program

The Albemarle-Pamlico National Estuary Program's (APNEP) Citizens' Water Quality Monitoring Program (CWQMP) is a network of private citizens who monitor ambient, surface water quality in the Albemarle-Pamlico Estuary and its tributaries. This program began as an initiative by the Pamlico-Tar River Foundation, to protect, preserve and promote the quality of the Tar-Pamlico River and its watershed. In 1991, the CWQMP was expanded under the Albemarle-Pamlico National Estuary Program to include all waters located within the Albemarle-Pamlico Watershed Basin.

The CWQMP focuses upon three areas of activity: 1) baseline monitoring; 2) targeted monitoring and surveys; and 3) water quality education. Program participants receive support in many forms: water quality education and training, equipment and supplies, data management and analysis, and network opportunities.

Participants in the CWQMP primarily monitor "vital signs" of the estuary. Specifically, volunteers monitor dissolved oxygen, pH, salinity, air and water temperatures, and turbidity to gauge the general health or quality of water in the estuary. Using basic, but accurate water quality test kits, citizen volunteers analyze water samples, observe qualitative factors such as weather conditions and other visual indicators, and record their results. All data collected are forwarded to the program office where staff compiles the information and enters the data into report form for citizen and government agency use. Often, these monitoring efforts serve as useful supplements to existing governmental activities.

For additional information, please contact the CWQMP by calling (252) 328-1747 or visit the APNEP website at <http://h2o.enr.state.nc.us/nep/>.

1.3.9 Coastal Habitat Protection Plans

The North Carolina Fisheries Reform Act of 1997 requires the North Carolina Department of Environment and Natural Resources to prepare Coastal Habitat Protection Plans (CHPPs) for the "long-term enhancement of coastal fisheries associated with each coastal habitat...." The plans describe the fisheries, fishery habitats and water quality affecting coastal fisheries stocks in the eight river basins that drain to the coast of North Carolina. Although staff of the Division of Marine Fisheries (DMF) is responsible for actually writing the plans, DWQ and the Wildlife Resources Commission, as well as the Divisions of Coastal Management (DCM) and Environmental Health (DEH), are heavily involved in the program. The Environmental Management, Coastal Resources and Marine Fisheries Commissions review and approve the plans, and those commissions are responsible for any new rules necessary for implementation of the plans.

The plans are organized by geographic area, with 11 management units, including the Chowan River basin, that generally correspond with the DWQ Basinwide Planning Program units. A general source document includes regional and summary information. The management unit plans are specific to their areas, including detailed information and specific recommendations addressing conservation, habitat protection and enhancement, water quality improvement, research and monitoring, and administrative actions. A complete plan includes both the source

document and the management unit plan. The first two area plans are underway in 2001: Chowan and Coastal Ocean. All CHPPs will be finalized by July 2003, then reviewed and updated every five years.

For additional information about CHPPs, call 1-800-682-2632 (in NC). You may also visit the DMF website at <http://www.ncfisheries.net/habitat/chpp1.htm>.

1.3.10 NC Cooperative Extension Service

In an effort to improve the information flow in the Chowan River basin, the NC Cooperative Extension Service's local area specialized agent in water quality acquired Section 319 funding. The funding is used to develop and circulate a periodic newsletter entitled *River and Sound Advice: News about the Chowan and Chowan River Basins*. For more information, contact Marjorie Rayburn at (252) 357-1400 or by e-mail Marjorie_Rayburn@ncsu.edu.

1.4 Local Initiatives

Local initiatives continue to serve as a great asset to water quality management in the Chowan River basin. Many of the activities are summarized in this section.

1.4.1 Blackwater/Nottoway Riverkeeper

The program was established in the spring of 2000 by Riverkeeper Jeff Turner under the sponsorship of the Water Keeper Alliance, a national coalition of nearly 60 environmental advocacy patrols dedicated to reclaiming, monitoring and preserving communities and the water on which they depend.

A nonprofit organization is being developed, and a dialog with local governments and civic groups is being established. Some of the projects that the local program has undertaken are summarized here.

Water Quality Projects

The City of Franklin, VA is drained by a system of ditches converging about 30 yards upstream from the Blackwater River. A floating boom is proposed, much like those used to contain oil spills, to be installed near the mouth of the combined ditches. The boom would catch floating trash so that it could be removed before it enters the river system. The Riverkeeper program is currently gathering information to alleviate city official's concerns.

The City of Norfolk, VA established a shallow dam on the Blackwater River, in the Burdette area, shortly after World War II. The dam creates a backwater, so that Norfolk can pump water from the Blackwater River to its system of lakes in Suffolk, VA. The Riverkeeper program is gathering data on providing a means for migratory fish such as shad, herring and striped bass to spawn in the area above the dam. The Riverkeeper has requested that assistance from the Southampton County Board of Supervisors, which is awaiting a report on the subject from the county.

Other program efforts include working with the local schools to educate young people about environmental concerns, organizing "Clean the River" days, and networking with the staff and students of a local community college.

To learn more about the Water Keeper Alliance, visit their website at www.keeper.org.

1.4.2 North Carolina Coastal Federation

The North Carolina Coastal Federation (NCCF) is the state's largest nonprofit organization working to restore and protect the coast. Formed in 1982, the NCCF has grown to serve more than 5,000 members and 200 member groups. The NCCF focuses on three main areas of work including habitat restoration and protection, environmental education, and the encouragement of sound environmental programs and their enforcement.

The North Carolina Coastal Federation, Environmental Defense and the Pamlico-Tar River Foundation (PTRF) reached an agreement with the state regarding permits issued to build a steel mill on the Chowan River. The groups sued the state for approving environmental permits before completing an environmental assessment of the Nucor project and for issuing an air permit that did not comply with Best Available Control Technologies. In a second lawsuit, the groups challenged the state for issuing a CAMA permit to Nucor for the construction of a docking facility on the Chowan River. The settlement resulted in a change in the way the state does business with industry. In the future, environmental permits and plans will be held in abeyance until the environmental review process has been completed.

The North Carolina Coastal Federation and Restore Americas Estuaries are working to identify, purchase, conserve and restore areas crucial to water quality in the Chowan River basin through the Coastal Habitat Protection Plans (CHPPS). NCCF serves on the Habitat and Water Quality Committee of the Marine Fisheries Commission, which is the lead advisory group for the Coastal Habitat Protection Plans (CHPPs).

NCCF's Education Program's mission is to provide educational experiences and resources that will produce an understanding and appreciation of coastal areas, motivating participants to make informed decisions and become active stewards. The NCCF's Education Program includes field trips, teacher workshops, classroom curriculum, action projects and much more. All students and teachers will find a hands-on way to connect to North Carolina's coast.

For more information, call NCCF at (800) 232-6210 or visit their website at <http://www.nccoast.org/>.