## 1.1 Workshop Summaries

In December 2002, there were two workshops held by DWQ in the Lumber River basin in the towns of Southern Pines and Bolivia. There were 33 people in attendance representing a variety of interests. Figure C-1 gives an estimation of groups/interests represented based on information recorded on attendance sheets.

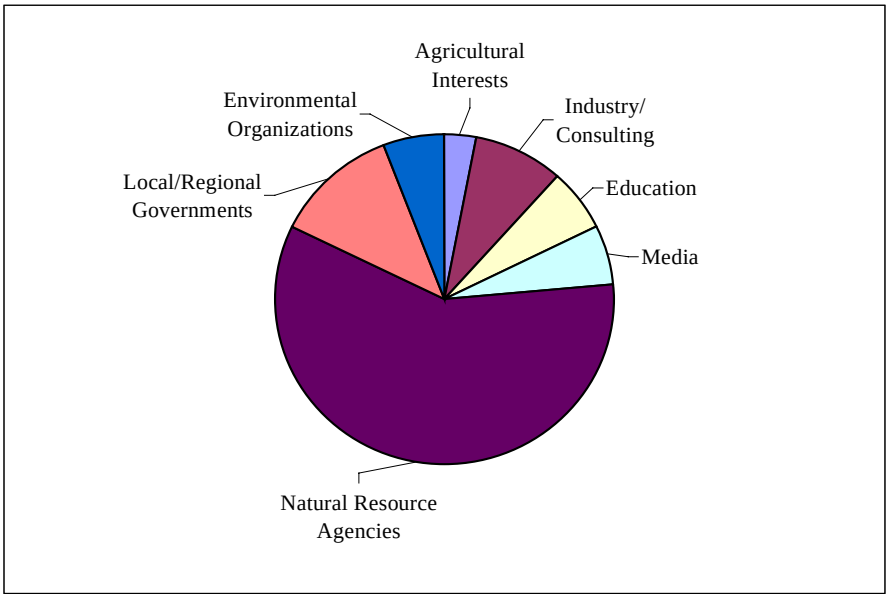



Figure C-1 Total Attendance by Various Interests at DWQ Water Quality Workshops in the Lumber River Basin (2002)

DWQ staff gave presentations about general water quality in the Lumber River basin, basinwide planning and the Wetlands Restoration Program. Participants at each workshop also gave brief presentations about local water quality initiatives. Workshop attendees were asked to discuss the following questions in small groups:

1. What are the main threats to water quality in the Lumber River basin?
2. Where are the problem areas or waters?
3. What recommendations do you have for addressing these problems/waters?
4. What local agencies or organizations should be involved in addressing the problems?

A detailed outline of each small group's discussion of these questions is available upon request. Good discussion was generated at each workshop, and all of the information was considered and, in some cases, incorporated into this draft plan. The most frequently cited threats to water quality identified by workshop participants are discussed below.

**Important Issues Basinwide**

The most important issues identified by workshop participants were related to development and nonpoint sources of pollution. Increasing urbanization was a concern identified throughout the basin in Brunswick, Moore and Robeson counties. Losses of forestland and wetlands, increases in nutrient loading from many sources, and stormwater runoff were identified as threats to water quality at the workshops. Issues related to enforcement of existing rules and monitoring, lack of BMP maintenance, mercury contamination and better drought planning were also of concern. Refer to Appendix V for summary tables from the workshops.

## 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 $3.46 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, is available online at http://h2o.enr.state.nc.us/nps/bigpic.htm.

A total of $227,667 has been funded for two projects in the Lumber River basin that have been funded (federal Section 319 money must be matched with nonfederal dollars) through the Section 319 base program between 1999 and 2003.

Many projects sponsored through Section 319 funding have basinwide applications. Many are demonstration projects and educational programs that allow for the dissemination of information to the public. Such programs include Friends of Lake Waccamaw State Park, which has been responsible for hosting education workshops with audio-visuals and on-site demonstrations of nonpoint source pollution solutions. They also produce and distribute a bimonthly newsletter to all landowners in Lake Waccamaw area.

Descriptions of the projects listed below and other Section 319 program information are available at http://h2o.enr.state.nc.us/nps/319.htm.

### 1.2.2 Lower Lockwoods Folly River (Subbasin 03-07-59)

The US Army Corps of Engineers has a $1,440,000 aquatic habitat restoration project on the Lower Lockwoods Folly River. This project seeks to improve the water quality and resource deterioration by modifying (restoring) the tidal circulation through the Galloway Flats and the Eastern Channel. Also, the placement of oyster culch will be conducted, where needed, to establish oyster habitat in both Galloway Flats and areas adjacent to the Eastern Channel. The dredging (construction) phase is expected to be completed in April 2004, in conjunction with pre- and post-construction monitoring and maintenance (page 144).

Table C-1 Projects Funded Through Clean Water Act Section 319

| FY | Project Name | Agency | Project Area | Description | Total Amount Funded |
|---|---|---|---|---|---|
| 1999 | Sandhills Longleaf Pine Ecosystem/ Waste Management Project | Environmental Impact (RC&D), Inc. | Moore, Montgomery and Richmond counties | Waste Management (determine the impact of poultry waste application on longleaf pine ecosystem) | $61,667 |
| 2001 | Lake Waccamaw Nonpoint Source Management and Assessment Project | Town of Lake Waccamaw | Lake Waccamaw | Management of stormwater from agricultural and urban sources, education | $166,000 |

## 1.3 State Initiatives

### 1.3.1 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. Collaboration is intended to increase collaboration 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 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.

### 1.3.2 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 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 program is implemented by the Division of Soil and Water Conservation (DSWC). 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.

From 1998 to 2002, $3,005,169 was provided for projects in counties wholly or partially in the Lumber River basin. The projects affected over 52,633 acres and saved almost 269,151 tons of soil from erosion. Also, 2,614,440 pounds of nitrogen and 342,223 pounds of phosphorus were saved (NCDENR-DSWC, 2003, ACSP Report: BMP Summary).

Soil and Water Conservation District contacts for the Lumber 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.

### 1.3.3 North Carolina 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 focus of the program is to improve watershed functions in the 17 river basins across the state by restoring wetlands, streams and riparian buffers within selected local watersheds. These vital watershed functions include water quality protection, floodwater retention, fisheries and wildlife habitat, and recreational opportunities. The NCWRP is not a grant program. Instead, the program funds local restoration 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"). The restoration 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 selection of Targeted Local Watersheds (at the scale of NRCS 14-digit Hydrologic Units, or HUs) does not necessarily restrict the location of NCWRP restoration project sites. However, these targeted HUs are given higher priority than nontargeted HUs in considering the selection of NCWRP candidate restoration project sites. Targeted Local Watersheds are simply local watersheds where stream, wetland and riparian buffer restoration projects will make the most sense in the context of overall watershed and wetlands protection.

The NCWRP is also working to develop comprehensive Local Watershed Plans within certain Targeted Local Watersheds identified in the Watershed Restoration Plans. These locally-based plans develop comprehensive watershed assessments to identify causes and sources of nonpoint source impairment. They also identify and prioritize wetland areas, stream reaches, riparian buffer areas and best management practices that will provide significant water quality improvement and other environmental benefits to local watersheds. The NCWRP will coordinate with local community groups, local governments and others to develop and implement these plans.

Selection of a watershed as a Targeted Local Watershed does not mean that a Local Watershed Plan will be initiated in that area. Local Watershed Plans are developed in areas that have extensive future mitigation needs, while Targeted Local Watersheds are selected as part of the NCWRP planning process for the Basinwide Watershed Restoration Plans.

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 Program. Integrating wetlands or riparian area restoration components with Section 319 funded or proposed projects will often improve the overall water quality benefits of the project. The NCWRP actively seeks landowners within the Lumber River basin that have restorable wetland, riparian and stream sites.

For more information about the NCWRP and its Watershed Restoration Plans, please contact George Norris at (919) 733-5312 or visit the DWQ website at http://h2o.enr.state.nc.us/ (click on Wetlands Restoration Program).

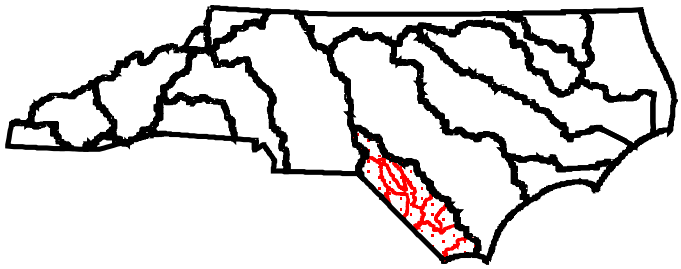
Table C-2 below lists the NCWRP's Targeted Local Watersheds [stream names and 14-digit HU codes] in the Lumber River basin. This table also indicates the pertinent factors that led to the selection of each Targeted Local Watershed. The Targeted Local Watersheds are selected on the basis of available data indicating the need and opportunity for local stream and wetlands restoration projects. Factors such as water quality problems, degraded aquatic habitat, cleared riparian buffers, significant natural areas or species, and increasing development pressures in the watershed are weighted heavily in determining these priority watersheds. Also, the presence of existing or planned water quality or habitat restoration projects in the same local watershed can be a significant factor in the choice of these watersheds. In some cases, NCWRP has used the water quality information alone (e.g., use impairment, potential increases in nonpoint source pollution) to support the selection of a specific Targeted Local Watershed. Targeted local watersheds are presented in Figure C-2.

Table C-2 Wetlands Restoration Program Targeted Local Watersheds (2003)

| Subbasin | Local Watershed Name and HU code | Impaired Stream(s) | Downward Trend in W. Quality | Public Water Supply | SA Waters | ORW or HQW | Aquatic NHP Elements | Existing, Planned Projects | Municipality(ies); Phase I or II | Local Resource Professional Recommendation |
|---|---|---|---|---|---|---|---|---|---|---|
| 03-07-51 | 03040203030010 Mill Branch | | | | | | | | | Yes |
| 03-07-51 | 03040203040010 Gum Swamp | | | | | | | | | Yes |
| 03-07-51 | 03040203050010 Bear Swamp | | | | | | | | | Yes |
| 03-07-51 | 03040203080020 Ivey Branch | | | Yes | | Yes | | Yes DOT | | |
| 03-07-51 | 03040203190010 Cow Branch | | | | | | | Yes NCWRP | | |
| 03-07-52 | 03040203160030 Lower Raft Swamp | | | | | | | | | Yes |
| 03-07-53 | 03040203110010 Cold Camp Creek | | | | | | | | | Yes |
| 03-07-55 | 03040204010060 Panther Swamp/ Bear Creek | | | | | | | | | Yes |
| 03-07-55 | 03040204048010 Wilkinson Creek | | | | | | | | | Yes |
| 03-07-55 | 0304020403710 Mitchell Swamp | | | | | | | | | Yes |
| 03-07-56 | 03040206020040 Upper Waccamaw River | | | | | Yes | Yes | | | Yes |
| 03-07-57 | 03040206030010 Juniper Swamp | | | | | | Yes | | | Yes |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 03-07-57 | 03040206010070<br>Upper Waccamaw River | | | | | | Yes | | | Yes |
| 03-07-57 | 03040206050010<br>Middle Waccamaw River | | | | | | Yes | | | Yes |
| 03-07-57 | 03040206060010<br>Gore Creek | | | | | | Yes | | | Yes |
| 03-07-57 | 03040206090010<br>Big Creek | | | | | | Yes | | | Yes |
| 03-07-59 | 03040207020030<br>Lockwoods Folly | Yes | | | Yes | Yes | | | | |
| 03-07-59 | 03040207020060<br>Shallotte River | Yes | | | Yes | Yes | | | | |
| 03-07-59 | 03040207020110<br>Calabash Creek | Yes | | | Yes | Yes | | | | |
| 03-07-59 | 03040207020090<br>Jinny's Branch/<br>Saucepan Creek | | | | Yes | Yes | | | | |

# Figure C-2 NCWRP Targeted Local Watersheds in the Lumber River Basin



MONTGOMERY
MOORE
03-07-50
HOKE
03-07-52
CUMBERLAND
RICHMOND
SCOTLAND
Lumber
ROBESON
03-07-53
03-07-55
BLADEN
03-07-58
N
W
E
S
03-07-54
River
03-07-56
03-07-51
COLUMBUS
BRUNSWICK
03-07-59
03-07-57

**Legend**

- Subbasin Boundary
- County Boundary
- Hydrography
- Targeted Local Watersheds

10 0 10 20 Miles

NCDENR

Planning Branch
Basinwide Planning Program Unit
January 12, 2004

### 1.3.4 Clean Water Management Trust Fund

North Carolina's Clean Water Management Trust Fund (CWMTF) was established by the General Assembly in 1996 (Article 13A; Chapter 113 of the North Carolina General Statutes). At the end of each fiscal year, 6.5 percent of the unreserved credit balance in North Carolina's General Fund (or a minimum of $30 million) goes into the CWMTF. Revenues from the CWMTF are then allocated in the form of grants to local governments, state agencies and conservation nonprofit organizations to help finance projects that specifically address water pollution problems. The 18-member, independent, CWMTF Board of Trustees has full responsibility over the allocation of moneys from the fund.

The CWMTF funds projects that: 1) enhance or restore degraded waters; 2) protect unpolluted waters; and/or 3) contribute toward a network of riparian buffers and greenways for environmental, educational and recreational benefits. In the Lumber River basin, 30 projects have been funded for over 20 million dollars ($20,232,900). Table C-3 presents total basin funding amounts by year and category listed by individual grants. For more information on the CWMTF or these grants, call (252) 830-3222 or visit the website at www.cwmtf.net.

Table C-3 Projects in the Lumber River Basin Funded by the Clean Water Management Trust Fund (as of 12/02)

| FY | Application Name | Proposed Project Description | Amount Funded | Subbasin |
|---|---|---|---|---|
| 2002A-027 | Sandhills Area Land Trust – Acq / Drowning Cr. II: Camp Mu-Sha-Ni | Acquire permanent conservation easement on 84.3 acres along Drowning Creek. CWMTF would fund 50% of the cost of the conservation easement, attorney and deed registration fees. | $44,000 | 03-07-50 |
| 1999B-015 | Sandhills Area Land Trust – Drowning Creek Conservation Easement | Acquire through permanent conservation easements 68 acres along Drowning Creek and tributaries. CWMTF funds to acquire easement on 21 acres of riparian land and landowners to donate an additional 47 acres. | $31,250 | 03-07-50 |
| 2001B-047 | Sandhills Area Land Trust – Acquisition / Drowning & Naked Creeks | Provide funds to cover transactional and stewardship costs. Project to protect 105 acres through purchase of permanent conservation easements (5 acres) and donated easements (100 acres) on Drowning and Naked Creeks. | $40,000 | 03-07-50 |
| 1998A-203 | Sandhills Area Land Trust – Drowning Creek Conservation Easements | Provides planning funds to pursue permanent conservation easements along Drowning Creek and tributaries. Includes $10,000 for options. | $96,000 | 03-07-50 |
| 2001A-027 | Sandhills Area Land Trust – Drowning Creek Land Acquisition | Acquire through fee simple purchase and permanent conservation easements 414 acres along Drowning Creek and Deep Creek. Acquire one tract in fee simple and three tracts by conservation easements. | $389,000 | 03-07-50 |
| 2001B-013 | Lumberton – Acquisition and Greenway / Lumber River | Acquire through fee simple purchase or permanent conservation easements 24 acres and fund greenway planning and design along the Lumber River. | $69,000 | 03-07-51 |
| 1999B-509 | Lumberton – I/I | Replace existing pumps with submersible pumps and raise walls at Station #1. Clean and inspect 10,000 liner feet of sewer main. Install backup power generation at 10 pump stations. | $692,000 | 03-07-51 |

| | | | | |
|---|---|---|---|---|
| 1998B-511 | Lumberton – Combined Sewer / Stormwater Separation | Separate combined sewer and stormwater lines and repair leaking sewer lines. Propose to separate 4,650 LF of combined sewer and stormwater lines. | $1,000,000 | 03-07-51 |
| 2000A-901 | Cape Fear RC&D – Columbus County / No-Till Drill | Provide funds for a no-till drill to be used primarily in the Porter Swamp watershed. | $20,150 | 03-07-51 |
| 1997B-002 | NC Div Parks & Rec – Acq / Princess Ann Swamp & Lumber River | Acquire through fee simple purchase 1,831 acres in the Princess Anne Swamp Area along the Lumber River. | $550,000 | 03-07-51 |
| 1997A-108 | NC Div Parks & Rec – Acq / Big McQueen Tract / Lumber River | Acquire through fee simple purchase 1,690 acres in two tracts along the Lumber River. | $400,000 | 03-07-51 |
| 1998A-602 | Pembroke – Wastewater Collection System to Deep Branch School | Install pumping station and sewer line (17,200 LF) to reroute wastewater from Deep Branch School's failing sand filter system to the Town of Pembroke's WWTP. Decommission school system. WWTP repairs (valve for chlorine and sludge pump). | $380,000 | 03-07-51 |
| 1997B-611 | Wagram – Wastewater Collection System | Construct sewer collection system (83,000 GPD) to eliminate over 370 failing septic systems. Waste will be pumped to the Laurinburg-Maxton Airport Commission's WWTP. | $400,000 | 03-07-51 |
| 2001A-506 | Red Springs – Sewer Rehabilitation | Fund the first major phase of the town's I&I and sewer rehab program. Construct two new pump stations and a new force main (2000 LF), abandon a leaking gravity outfall, and rehabilitate a section of another leaking gravity outfall (5,000 LF). | $351,000 | 03-07-52 |
| 1999B-510 | Parkton – Sewer Rehabilitation | Rehabilitate existing wastewater collection system (11,582 LF and 46 manholes) to reduce groundwater and rainwater inflow and infiltration into the sanitary sewer system and to eliminate toxicity problems at WWTP. | $670,000 | 03-07-53 |
| 1999B-515 | St. Pauls – Backup Generation | Purchase and install two 3-phase generators to support WWTP and pump stations and to prevent sewer overflows and bypasses during power outages. Purpose to prevent frequent sewer spills to Big Marsh Swamp. | $95,000 | 03-07-53 |
| 2001A-509 | St. Pauls – WWTP Improvements | Design and construct improvements at the town's WWTP, to eliminate discharge of untreated wastewater. Includes constructing a second clarifier and an equalization basin. Monitor results. | $296,000 | 03-07-53 |
| 2001B-501 | Bladenboro – Wastewater Land Application & Acquisition / Bryant Swamp | Provide up to 80% of the cost of constructing a wastewater land application system to treat up to 0.25 MGD of its 0.5 MGD permitted discharge into Bryant Swamp. Funds for acquisition of 135-acre spray site and irrigation equipment. | $1,863,000 | 03-07-53 |
| 1997A-118 | Fairmont – WWTP Construction & Consolidation / Pittmans Mill Branch | Construct new, consolidated wastewater treatment plant that will discharge to Lumber River, rather than a zero flow stream. Eliminate school discharge. CWMTF pays approximately 15% of total costs. | $1,000,000 | 03-07-54 |
| 2000B-012 | NC Wildlife Resources Commission – Breeden Tract / Sandhills Acq | Acquire through fee simple purchase 100 acres along Upper Beaverdam Creek. CWMTF funds to purchase a portion of the riparian acreage. | $46,000 | 03-07-55 |
| 1997B-506 | Gibson – Sewer Rehabilitation | Rehabilitate Gibson's existing wastewater collection system (5,000 LF and manholes) in order to reduce groundwater and rainwater inflow and infiltration into the sanitary sewer system. | $286,500 | 03-07-55 |

| | | | | |
|---|---|---|---|---|
| 2000B-705 | Lake Waccamaw – Stormwater Management System / Lake Waccamaw | Construct comprehensive stormwater system for runoff flowing into Lake Waccamaw. Includes 3 wet retention ponds, 3 pump stations, and new and upgraded storm sewers. Town to adopt ordinance to prohibit stormwater discharges into the lake. Monitor results. | $4,500,000 | 03-07-56 |
| 2001B-040 | NC Wildlife Resources Commission – Acquisition / Waccamaw River and Juniper Creek | Acquire through fee simple purchase 2,530 acres along the Waccamaw River and Juniper Creek. | $900,000 | 03-07-57 |
| 1997A-117 | Tabor City – WWTP Improvements | Add a tertiary filtration process (deep sand beds) to the wastewater management system, prior to chlorination. Should substantially reduce suspended solids and oxygen demanding wastes. Discharge monitoring will be reported to DWQ-WiRO. | $570,000 | 03-07-57 |
| 1998A-508 | Chadbourn – Sewer Rehab & Collection Sys / Soules & White Marsh Swamp | Rehabilitate Chadbourn's existing wastewater collection system in order to reduce groundwater and rainwater inflow and infiltration into the sanitary sewer system. | $1,312,000 | 03-07-58 |
| 2000B-007 | Nature Conservancy – Acq – Waccamaw River / Railroad Tract | Acquire through fee simple purchase 61 acres along White Marsh swamp, a tributary of the Waccamaw River. | $84,000 | 03-07-58 |
| 2001B-022 | Nature Conservancy – Acquisition / White Marsh and Waccamaw River | Acquire 456 acres through fee simple purchase along White Marsh and the Waccamaw River. | $290,000 | 03-07-58 |
| 2002A-020 | NC Coastal Land Trust | Acquire a permanent conservation easement on 263 acres along Lockwoods Folly River and Sandy Branch. CWMTF would fund acquisition of easement on 143 riparian acres. | $652,000 | 03-07-59 |
| 1998A-001 | Long Beach – Acq / Septic Tank Mgmt / Drainage Impv – Davis Creek | Acquire 30-acre tract (The Point) and easements on Davis Creek. Restore free flow drainage by removing obstacles at two bridges. Small program to assess septic tanks. | $456,000 | 03-07-59 |
| 2001A-019 | NC Div Coastal Management, NCCLT & NCCF – Bird Island Acq | Acquire through fee simple purchase Bird Island, totaling 1200 acres. | $2,750,000 | 03-07-59 |

### 1.3.5 NC Construction Grants and Loans Program

The NC Construction Grants and Loans 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 two major programs that assist local governments, the federally funded Clean Water State Revolving Fund (SRF) Program and the NC Clean Water Revolving Loan and Grant Program. These programs can provide both low interest loan and grant funds for wastewater treatment projects. In the Lumber River basin, seven applicants have been offered a total of $13,032,255 in SRG projects, and two applicants have been offered a total of $2,154,350 in SRL projects (Table C-4).

As a technical resource, the Construction Grants and Loans Section, in conjunction with the Environmental Protection Agency, has initiated the Municipal Compliance Initiatives 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.

Table C-4 Projects in the Lumber River Basin Funded by the NC Construction Grants and Loans Section

| **Funded Grant (Clean Water Bond or SRG) Projects** | | |
|---|---|---|
| **Applicant** | **Grant Offered** | **Project** |
| Calabash/SBWSA | $3,000,000 | New Collection & Transmission System |
| Gibson | $646,100 | WWTP Upgrade & Expansion |
| Lumberton | $3,000,000 | I/I and CSO Correction |
| Oak Island | $563,000 | Treatment Modifications |
| Oak Island | $1,637,155 | New Collection Lines |
| St. Pauls | $1,186,000 | New Collection Lines |
| Tabor City | $3,000,000 | New Collection Lines |
| **Funded Grant State Revolving Loan (SRL) Projects** | | |
| **Applicant** | **Loan Offered** | **Project** |
| Lake Waccamaw | $588,000 | New Collection Lines |
| Lumberton | $1,566,350 | Divert Flow to SW Interceptor |

### 1.3.6 North Carolina Stream Watch

The realization that local residents are best suited to keep an eye on their nearby waterways is what prompted North Carolina to begin project Stream Watch. With Stream Watch, citizens groups "adopt" a waterway, or a portion of one, and act on its behalf. Stream Watchers become the adoptive parents of a stream and, as such, become its primary caretakers.

With the help of the Department of Environment and Natural Resources' Division of Water Resources, Stream Watchers become informed stewards, learning how to react to the changing stream conditions. Local efforts combined with state support allow North Carolina's 37,000 miles of waterways to be monitored by those with the best view--local residents. In the Lumber River basin, there are four different groups monitoring different stream segments. For more information on Stream Watch, call (919) 715-5433 or visit the website at http://www.ncwater.org/Education_and_Technical_Assistance/Stream_Watch/.

### 1.3.7 South Carolina Department of Health and Environmental Control

In 1991, the South Carolina Department of Health and Environmental Control (SCDHEC) Bureau implemented the Watershed Water Quality Management Strategy in order to more efficiently protect and improve the quality of South Carolina's surface water resources. This

management strategy recognizes the interdependence of water quality and all the activities that occur in the associated drainage basin. Under the watershed management approach, monitoring, assessment, problem identification and prioritization, water quality modeling, planning, permitting and other SCDHEC initiatives are coordinated by basin. A watershed water quality assessment document is produced for each basin on a five-year rotating schedule. The first Watershed Water Quality Assessment for the Pee Dee River basin was published in May 2000 and will be updated on a five-year rotational basis.

To obtain a copy of the Watershed Water Quality Assessment or for further information about water quality in the Pee Dee River basin in South Carolina, contact Mark A. Giffin at (803) 898-4022 or by email giffinma@dhec.sc.gov or visit the website at http://www.scdhec.net/water.

### 1.3.8 North Carolina Coastal Nonpoint Source Program

Section 6217 of the Federal 1990 Coastal Zone Act Reauthorization Amendments (CZARA) requires every state participating in the Coastal Zone Management Act Program to develop a Coastal Nonpoint Source Program (CNPSP). The purpose of this requirement, as stated in the Act, 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 coastal habitats." To accomplish these goals, the federal agencies established 56 Management Measures that are to be used by each state to address the following nonpoint source pollution categories (first five items) and that provide tools to address the various sources of nonpoint pollution (last item):

- *Agricultural Sources*
- *Forestry*
- *Urban Areas* (urban runoff; construction activities; existing development; on-site disposal systems; pollution prevention; and roads, highways, and bridges)
- *Marinas and Recreational Boating* (siting and design; and marina and boat operation/maintenance)
- *Hydrologic Modification* (channelization and channel modification; dams; and streambank and shoreline erosion)
- *Wetlands, Riparian Areas, and Vegetated Treatment Systems*

At the federal level, the program is called the Coastal Nonpoint Pollution Control Program and is administered jointly by the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA). Within North Carolina, the state program is administered by the Division of Water Quality (DWQ) and the Division of Coastal Management (DCM) and is referred to as the Coastal Nonpoint Source Program. The state program currently has one full time permanent staff person and one temporary employee, both located in the Nonpoint Source Planning Unit of DWQ.

The 56 Management Measures are defined in Section 6217(g)(5) of CZARA as: "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through application of the best available nonpoint pollution control practices technologies, processes, siting criteria, operating methods or other alternatives."

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: http://www.epa.gov/owow/nps/MMGI/.

North Carolina received approval from NOAA and EPA for its state program on August 13, 2003. To receive this approval, North Carolina had to identify that we have enforceable policies and mechanisms for the 56 Management Measures and establish our program boundary. We are now required to develop a strategy to ensure all applicable Management Measures to protect and restore water quality are implemented within 15 years.

North Carolina is relying on existing authorities and programs and proposed projects to meet federal requirements but it may become apparent in the future that additional Management Measures and new regulations are needed to address significant sources of nonpoint sources. If a need arises for new or modified regulations they would be proposed under existing agency frameworks.

The core of the state's CNPSP is increased communication and coordination between DWQ and key state agencies that have regulatory responsibilities for controlling nonpoint sources of pollution. This increased dialogue is facilitated in part by the state's CNPSP Coordinator and promotes identification of gaps, duplications, inadequacies and/or inefficiencies of existing programs and policies. Responsibilities of the state program coordinator also include developing the 15-year Strategy Plan, serving as a liaison between DWQ and DCM, and participating in the development of nonpoint source outreach and educational activities. For more information, contact the NC Coastal Nonpoint Source Program Coordinator at (919) 733-5083, ext. 567 or gloria.putnam@ncmail.net.

### 1.3.9 North Carolina Flood Plain Mapping Program

The State of North Carolina, through the Federal Emergency Management Agency's (FEMA's) Cooperating Technical Partnership initiative, has been designated as the first Cooperating Technical State (CTS). As a CTS, the state will assume primary ownership and responsibility of the National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRMs) for North Carolina CTS Flood Mapping Program will include conducting flood hazard analyses and producing updated, digital FIRMs. For more specific information on the Lumber River basin efforts, visit http://www.ncfloodmaps.com/pubdocs/Final_Basin_Plan_Lumber.pdf.

## 1.4 Local Initiatives

### 1.4.1 Friends of Lake Waccamaw State Park

The Friends of Lake Waccamaw State Park (FLWSP) members and volunteers have been committed to the protection of water quality and the national significance for biological diversity on the park lands and in Lake Waccamaw as well as the Waccamaw River watershed since 1986. Initiatives include funding for projects to improve and support clean water in and around Lake Waccamaw and the Waccamaw River. FLWSP is currently providing ongoing education

programs, newsletters and water quality testing funded by the EPA 319 Nonpoint Source Pollution Program. FLWSP continues to support the Town of Lake Waccamaw in acquiring funds for reducing nonpoint source pollution with a grant from the NC Clean Water Management Trust Fund for a stormwater management project and local regulation of stormwater pollution. Friends of Lake Waccamaw State Park can be contacted at friendslwsp@weblnk.net.

### 1.4.2 Winyah Rivers Foundation

The Waccamaw Watershed Academy, in the Center for Marine and Wetland Studies at Coastal Carolina University (CCU) in South Carolina, has sponsored a variety of research and educational activities in concert with the Waccamaw Riverkeeper®. These projects include scientific work funded by an USEPA Section 319 grant and is conducted in-house by a state-certified environmental quality lab. For further information, visit the website at http://www.coastal.edu/envsci/ or contact susan@coastal.edu. The Waccamaw Riverkeeper® is licensed by the Waterkeeper Alliance, Inc. and housed within CCU's Center for Marine and Wetland Studies. The Riverkeeper® is supported by the Winyah Rivers Foundation where the mission is to protect, preserve, monitor and revitalize the health of the lands and waters of the Greater Winyah Watershed. The foundation currently has 350 members. More information can be obtained from http://www.winyahrivers.org and contacting the Waccamaw Riverkeeper®, Hamp Schuping, at wrk@coastal.edu.

## 1.5 Regional Initiatives

### 1.5.1 Conservation Trust for North Carolina

The Conservation Trust for North Carolina and CWMTF have funded two riparian corridor conservation plans in the Lumber River basin. Plans were prepared for the Drowning Creek watershed (subbasin 03-07-50) and the Waccamaw River (subbasin 03-07-56 and 03-07-57).

### 1.5.2 Lumber River Council of Government

**Surface Water Initiatives of the Lumber River COG**

In 1998, the Lumber River Council of Governments (LRCOG) published a report on the potential regionalization of wastewater discharge points within a large portion of the Lumber River basin. A section on this report contained a recommendation to begin organizing a basinwide planning organization comprised of the region's stakeholders. Since 1998, the LRCOG has taken the initiative in addressing water resource concerns within the southeastern region of North Carolina, particularly within the Lumber River basin. In 2000, the LRCOG established the ***Lumber River Basin Consortium***. The consortium is a multi-stakeholder membership which includes business and industry; environmental groups; federal, state and local agencies such as Cooperative Extension and Soil and Water Conservation Service; the agricultural community; and educational/research institutions. The consortium's goal is to provide direction and recommendations for implementation on surface water issues and extend its reach to: 1) provide water quality research; 2) assist in water conservation education; and 3) promote wise stewardship of surface water resources. The consortium hopes to serve as a forum

to provide coordinated management, communication among stakeholders, and assist in resolving water resource issues and concerns within the basin. In December of 2002, the LRCOG completed the **Lumber River Basin Strategic Plan**. This document lists strategies to help the consortium establish its leadership role in the Lumber River basin. Components of the plan will include descriptions of the current status and future needs related to:

1. River Monitoring
2. Education
3. Advocacy
4. Intra-State Agreements
5. Inter-State Agreements with South Carolina
6. Riparian Buffers
7. River-Cleanup/Restoration
8. Public Awareness