

## CHAPTER TOPICS

- 💧 The Importance
- 💧 Catawba RiverKeeper
- 💧 Conservation Easement Fund
- 💧 Charlotte-Mecklenburg
- 💧 Lincoln County
- 💧 Gaston County
- 💧 Other

## CHAPTER NINE

# LOCAL INITIATIVES

## IN THE CATAWBA RIVER BASIN

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### LOCAL INITIATIVES

The focus of this Chapter is to highlight some of the local initiatives that have been planned or implemented throughout this planning cycle. This Chapter also includes a list of watershed groups and natural resource agencies focused on improving water quality across the basin. There may be more of these groups and agencies active within the basin and as DWQ becomes aware of water quality improvement or protection activities, they will be updated within this Chapter. Please contact the *Catawba Basin Planner* to have your program/projects listed here.

### THE IMPORTANCE OF LOCAL INITIATIVES

Local initiatives to protect water quality are essential to any community because local citizens make decisions that affect change in their own communities. There are a variety of limitations local initiatives can overcome including limited state government budgets and staff resources, minimal regulations for land use management, rulemaking processes and many others. Local organizations and agencies are able to combine professional expertise in a watershed, thus allowing 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 wide 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 may be available. 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 local efforts are key to water quality improvements. There are good examples of local agencies and groups using these cooperative strategies throughout the basin and specific groups and projects are discussed within each of the 10-digit watershed write ups in the three Subbasin Chapters. Some of these groups are listed below. DWQ applauds the foresight and proactive response of local watershed groups and local governments to address any number of water quality problems.

## CATAWBA RIVERKEEPER FOUNDATION, INC (CRF)

The Catawba RiverKeeper Foundation advocates for and secures protection and enhancement of the Catawba River, its lakes, tributaries and watershed so that it will always sustain the human and wildlife populations that depend on it for life.

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### Accomplishments since 2004:

- 💧 Received the dubious distinction in 2008 as America's "Most Endangered River"
- 💧 Leading public awareness campaign on 4 EPA listed "High Hazard Potential" coal ash ponds along the Catawba River
- 💧 Trained new groups of Covekeeper volunteers on Lakes Hickory, Norman, and Wylie
- 💧 Launched and trained over 200 Catawba basin residents in Muddy Water Watch, a citizen program to stop sediment-laden construction stormwater runoff
- 💧 Coordinated our Annual Riversweep on Lake Wylie, which has removed over 100 tons of waste from Wylie in the past 4 years
- 💧 Unified basin governments in opposition to an IBT request from Concord and Kannapolis
- 💧 Partnered on efforts to protect 116 acres surrounding East Lincoln County's water intake
- 💧 Many more found here <http://www.catawbariverkeeper.org/aboutus/accomplishments>

## CONSERVATION EASEMENT FUND

The Conservation Easement Fund, as discussed in the 2004 basin plan, administered by the UNCC Urban Institute and Clemson University and funded by Crescent Resources, Inc., was successful in preserving and protecting 1,311 acres in NC and 146 acres in SC of riparian and wetland habitats along perennial streams and rivers in the Catawba River basin. The fund reimbursed land trusts and landowners for their costs in establishing conservation easements on these properties in the sum of \$81,021. These efforts have significantly improved water quality and habitat throughout the Johns River watershed, as seen in the Excellent biological ratings it received during the 2007 sampling. For more information about this grant, please see the [Strom Thurmond Institute website](#).

\* Submitted by *UNC Charlotte Urban Institute April 27, 2010.*

## CHARLOTTE-MECKLENBURG

### Post-Construction Controls Ordinance

In 2007 & 2008, the City of Charlotte, the Towns of Huntersville, Cornelius, Davidson, Mint Hill, Matthews, Pineville and Mecklenburg County implemented a Post-Construction Controls Ordinance that exceeds the State's minimum standards. The Ordinance contains provisions for open space, detention, stream buffers and pollution control for both new development and redevelopment. The Ordinance goes beyond the State's minimums by:

- 💧 Strengthening detention measures to protect streams from erosion and alleviate street & house flooding,
- 💧 Requiring undisturbed open space,
- 💧 Mandating wider stream buffers,

- Providing guidance for nutrient controls in sensitive areas, and
- Including requirements for redevelopment.

## Water Quality Education campaign

Charlotte-Mecklenburg Storm Water Services (CMSWS) is making a difference with a public information program that is comprehensive, clear and creative. The multi-faceted program helps citizens of Charlotte and Mecklenburg County choose behaviors that protect our water quality. Rather than use a “one size fits all” mentality, CMSWS’ public information program presents clear messages through a kaleidoscope of media such as print, radio, television, student programs, public events, volunteer programs, social media and partnerships with local universities, just to name a few. Volunteer programs include an Adopt a Stream Program, Storm Drain Stenciling Program, and a Volunteer Monitoring Program. Public surveys indicate these broad campaigns have made a definite impact. Awareness of storm water issues is at an all-time high of 62%, up nearly 20% in the past five years.

## Regional Stormwater Partnership

In 2007, member municipalities of the Centralina Council of Governments formed a Regional Stormwater Partnership to address regional stormwater issues. The group meets quarterly to discuss regulations and issues. They also work cooperatively to educate the region about storm water issues, provide public involvement programs and train the staff of the member municipalities. The group leverages dues with grants to accomplish common goals.

## Stream Monitoring Program

Charlotte-Mecklenburg manages an extensive stream monitoring program, which encompasses the entire county and includes sites in Charlotte and all six towns. The program is multifaceted and includes a variety of methods to assess stream health and identify pollution sources. Types of sampling conducted include chemical/physical, biological, macroinvertebrate, fish, habitat, quantitative monitoring and automated/continuous.

## Industrial/Municipal Inspection Program

Over 200 private and municipal facilities are inspected per year throughout the county. Facilities are evaluated regarding pollution prevention, spill response, storage practices and good housekeeping measures. Records and permits are reviewed and local and state water quality ordinances are enforced as necessary. Select facilities are monitored during storm events to evaluate facility BMPs.

## Citizen Requests / Emergency Response

Over 800 citizen requests and emergencies are responded to every year. Investigations include discolored streams, unusual smells, illicit discharges and various other pollution issues. Emergencies include fuel and chemical spills and sewage discharges.

## Erosion Control Program

Mecklenburg County and the City of Charlotte have local erosion control programs and ordinances. These programs are aimed at keeping sediment out of surface waters by proactively enforcing the erosion ordinances through the review of erosion control plans, site inspections and educating the development industry and the public. A local erosion control certification program is required for site contractors that work in Mecklenburg County and Charlotte. The Charlotte-Mecklenburg Certified Site Inspector (CMCSI) training and certification classes are typically offered quarterly to the public.

## CITY OF CHARLOTTE

### **Pilot Best Management Practices (BMP) Program**

The City of Charlotte has an aggressive Pilot BMP program. The City installs structural BMPs with a goal of determining the best use, costs, and effectiveness. Stormwater flowing into and out of the BMPs is tested regularly to show which BMPs are most effective at removing pollutants under various conditions. The City's Pilot BMP program is focused on determining the cost benefit, pollutant removal efficiency, and maintenance costs or requirements of various types of BMPs. Knowledge gained from evaluating these Pilot BMPs is part of an overall water quality management strategy for Charlotte watersheds.

### **Stream and Wetland Mitigation Bank**

In 2004, Charlotte-Mecklenburg Storm Water Services successfully completed negotiations with State and Federal authorities to establish the City of Charlotte Stream and Wetland Mitigation Bank with the goal of restoration, enhancement, and preservation of stream and wetland systems. Restoration projects constructed by Storm Water Services generate credits that can be used to offset impacts to streams and wetlands authorized by Clean Water Act permits. These credits are 'banked' for use later on City and County public projects that impact those resources. Prior to the establishment of the Mitigation Bank, mitigation requirements were satisfied by purchasing credits from the State without regard for where the money will be spent. The Mitigation Bank allows mitigation dollars to remain local, so that the benefits of restoration projects are realized in Charlotte's watersheds. The Mitigation Bank also allows Charlotte to build restoration projects well in advance of impacts so public infrastructure project schedules are not affected by delays related to mitigation needs.

### **Stream & Pond Capital Projects**

Using an extensive list of criteria, dozens of streams and ponds have been ranked in order to prioritize funding of the Water Quality Capital Project Program. Streams and ponds are restored and rehabilitated to enhance the water quality benefit of the City's urban watersheds. Currently, the City initiates 2-3 pond rehabilitation projects a year and approximately 4,000 linear feet of stream restoration projects a year. There is an annual budget of \$4.4 million dedicated to these projects.

## MECKLENBURG COUNTY

### **Lake Management Program (SWIM Phase I)**

Three large Catawba River reservoirs, Lake Norman, Mtn. Island Lake and Lake Wylie pass through Mecklenburg County, which all together encompass the entire western border of the County. Mecklenburg County has monitored the water quality of the lakes since 1978. Today, the County monitors all lakes routinely at twenty eight sites, six times a year for a suite of chemical parameters. Sample results are put into a locally produced Lake Use Support Index (LUSI) and made available to the public for review. Additional bacteria monitoring occurs during the summer months at known swimming areas in order to assess the water for safe swimming conditions. Specific pollutants of concern and known areas of impairment are targeted for additional monitoring and investigation through the Pollution Abatement Monitoring (PAM) program which is aimed at identifying and eliminating specific pollution sources.

### **McDowell Creek Watershed Restoration (SWIM Phase II)**

In 2006 Mecklenburg County in cooperation with the Towns of Cornelius and Huntersville developed the McDowell Creek Watershed Management Plan. The purpose of the plan was to restore the watershed to its designated use, which had been compromised due to past agricultural and more recent development practices. The watershed was initially included as a Category 5, 303(d) listing for biological impairment, however after review of the plan state and federal officials re-categorized the watershed to Category 4b, which indicates that a plan is in place to restore the watershed. Mecklenburg County, the Towns of Cornelius and Huntersville and various federal and state programs have invested more than \$6,000,000 on projects to restore McDowell Creek, with 3 more projects currently in the planning stage and many more with high priority for implementation. These projects include retrofitting existing development with BMPs to treat storm water runoff, and miles and miles of stream restoration aimed at reducing sediment load from stream banks and restoring biological habitat in the stream.

## Creek ReLeaf Program (SWIM Phase II)

The Creek Releaf program is a volunteer effort aimed at restoring stream buffer and floodplains to a natural forested state. Thus far, the program has planted more than 7,500 trees and restored more than 12 acres of floodplain. In 2009 the program attracted more than 400 volunteers during a week-long planting event. Efforts planned for 2010 include the restoration of 3 acres of urban floodplain along with in-stream planting and invasive vegetation removal. The program receives assistance from local grants and sponsorships.

## Capital Improvement Program

Mecklenburg County administers the major system Capital Improvement Program (CIP) that is funded from a portion of storm water fees charged to landowners in Mecklenburg County. The program's current budget is \$3,374,313 and it focuses upon improvements to the larger, FEMA regulated streams in Mecklenburg County. The CIP funds are broadly allocated to two main pots of money: 1) \$1,621,984 is designated for improvements to the stream channel itself through funding of stream restoration, enhancement and preservation efforts; and, 2) \$1,752,329 is allocated to Flood Mitigation for the reduction of risk from flooding in the Major System through targeted buy-outs of flood prone properties and other techniques to reduce the impacts of flooding.

\* Submitted by *Charlotte-Mecklenburg Stormwater Services* June 17, 2010.

## LINCOLN COUNTY

Environmental Planning in Lincoln County focuses on the protection of natural resources, including water and air quality. Watershed planning and planning related to reducing the cumulative impacts of development across the county is the primary focus of *Lincoln County's Environmental Planning Division*. The county has recently implemented 50 foot buffers on all streams in county. The floodplain ordinance has also been revised to include floodplain buffers which should be at least the size of the flood plain.

## GASTON COUNTY

### SEDIMENT & EROSION CONTROL LOCAL PROGRAM

Gaston County's Sediment & Erosion Control Program was adopted in April 2003 and is administered by the Natural Resources Department (or Soil and Water Conservation District). Since the program was taken over in 2003, Gaston Natural Resources has reviewed 1835 plans (14738.24 acres impacted) and collected \$267,720 in violations. Between the first year (April 2003 to April 2004) and this past year (April 2009 to April 2010) there has been a significant difference in the amount of fines levied (i.e. nearly 90% of all plans submitted between 2009-2010 had no recorded violations). This shows the County's successful ability to work and educate the building community on the import relationship between erosion control and reducing off site sedimentation.

The Program was modeled after other proven local programs in both administration and enforcement. Other communities looking to adopt a Local Program should look to Gaston County as an example.

### STORMWATER PHASE II LOCAL PROGRAM

Along with Gaston County's Sediment & Erosion Control Program, the Natural Resources Department is also responsible for the Stormwater Phase II Local Program, as of 2007. Their goal is not only to reduce sedimentation in the Catawba River, but also reduce the contaminants from stormwater in a post construction environment. To date, the program has reviewed and enforced the EPA Phase II rules on plans that will impact the future of water quality in Gaston County.

For more information about *Gaston County's Natural Resources Department*, click the link to visit their website.

\* Submitted by *Gaston County* July 15, 2010.

## OTHER LOCAL INITIATIVES

### BLUE RIDGE FOREVER COALITION

In Western North Carolina, the *Blue Ridge Forever Coalition*, a group of 10 land trusts in the region, was awarded a \$375,000 grant to protect headwater streams through conservation easements and purchases and conveyances to the state parks system. This grant will fund six projects covering almost 3,000 acres in Avery, Alleghany, Caldwell, Henderson and McDowell and counties in the French Broad, Yadkin Pee-Dee and Catawba River Basins. Collectively, the land trusts of the Blue Ridge Forever Coalition has conserved more than 180,000 acres in Western North Carolina.

This grant is a result of a lawsuit agreement reached with Smithfields Foods, the world's largest pork producer, which designated two million dollars in grants that will go to improving water quality, protect North Carolina rivers and wildlife habitat, and help farmers clean up animal waste lagoons.

*\* Source: Asheville Citizen-Times, June 23, 2010.*

Out of the six projects planned, two will be located in the Catawba River Basin. Both projects will be led by the Foothills Conservancy of NC and will conserve 1,022 acres. One will be located on Wilson Creek in Caldwell County and includes 4.2 stream miles and 332 acres with public access. The second will also be located in the headwaters, McDowell County, and includes 690 acres and 2.8 stream miles with public access.

*\* Information provided by Campaign Director for the Blue Ridge Forever Coalition.*

### OTHER ORGANIZATIONS ACTIVE IN THE CATAWBA RIVER BASIN

NC Stream Watch, SCDHEC, Bi-State Commission, Catawba River Corridor Project, Lake James Task Force, Catawba County, Burke County, Voices and Choices, Catawba River Women's Group, Sustainable Environment for Quality of Life, Catawba Land Conservancy, Foothills Conservancy, Catawba River Foundation, Trout Unlimited, American Rivers Catawba-Wateree Relicensing, NC Wildlife Foundation, VWIN and The Trust for Public Land.