DIVISION OF WATER RESOURCES
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

STREAM WATCH NEWS

Spring 1999 **Issue 37**

Letter From The Coordinator

Dear Friends of North Carolina Waters:

Keeping our waterways clean and free of pollution is a team effort. The Stream Watch Program works cooperatively with any and all groups in the state who are committed to the improvement of our environment through education, conservation and stewardship. Many of the larger river conservation groups are outgrowths of "former" Stream Watch grassroots efforts. North Carolina is fortunate to have many advocates for clean waters. By working together, sharing our knowledge and expertise, North Carolinians can benefit from a collective body of information and experience. The health of the environment is in our hands. Let us work together to improve the environment for ourselves and future generations.

Sincerely,

David Wojnowski

NCDENR
North Carolina Department of Environment and Natural Resources

Sixth Grade Student Organizes Stream Watch Group

Carol and Colette Henderson with their adopted Creek.

Colette Henderson of Chapel Hill has adopted Pritchard Creek for her three-year project at Culbreth Middle School. Colette will be monitoring the pH and dissolved oxygen levels in her adopted creek. In addition, Colette will be looking at the biological diversity of macroinvertebrates that inhabit Pritchard Creek.

Macroinvertebrates can tell a Stream Watcher about the health of a stream. Some species of macroinvertebrates cannot tolerant pollution. Their presence in the stream, like a "canary in a mineshaft," suggests healthy conditions. However, some "bugs" are more tolerant of pollution. Taken together, the presence or absence of tolerant and intolerant types can indicate the overall health of the stream.

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David Wojnowski, the Stream Watch coordinator, gave Colette a workshop on how to use the test kits and identify the different macroinvertebrates found. Carol Henderson (Colette's mother) taped the workshop and had the video professionally edited to share with Colette's teacher and other students interested in her project at school. Stream Watch groups interested in macroinvertebrate sampling can call David Wojnowski for a workshop.

Wilson Creek Stream Watch

Great news from Hudson, North Carolina in Caldwell County. Dennis Coffey, coordinator for the Wilson Creek Stream Watch group, reports that their first cleanup effort was a big success! They hauled out an entire pickup truck full of trash. The members of Wilson Creek Steam Watch group have explained the Stream Watch ethic to the property owners along their adopted stream and there is no more trash to speak of from the upper reach (where Lost Cove Creek joins Wilson Creek) to the convergence of Wilson Creek with the Johns River. **Way to go!**

Crabtree Creek Spring Clean-up Is May 1

Make room on your calendar May 1 for the Spring clean up of Crabtree Creek!

We will meet at 8:45a.m. at the entrance of the Fallon Creek Greenway trail at Oxford Road (near the intersection of Oxford Road and Anderson Drive.) This Spring we plan to clean up the Raleigh section of Crabtree Creek that the Streamwatch group has adopted.

If you were wondering just what the Crabtree Creek Streamwatch group is all about, here's the scoop... Our main activity is organizing two cleanups a year. The Spring cleanup is usually in May, and the Fall cleanup is during "Big Sweep," which is the third weekend in September. The group started some time ago, around 1983. The "core" of the group is small (six to eight) and we'll normally have 20 to 30 volunteers show up to work at the cleanups, but sometimes (mostly in the spring) we may only have 10 or so.

The cleanup's work load varies and you can make it as hard and dirty as you like. You can stay somewhat clean by walking along the bank and picking up trash, or you might want to get into the water to dislodge a tire or two from the bed of the creek. Many of the first time volunteers are a bit nervous about getting into the creek, but end up enjoying it because most of the trash is in (or under) the water. Just remember to wear clothes that you don't mind getting dirty. We will haul the trash out of the creek and put it on the greenway beside the creek (where the city has been kind enough to dispose of it for us - thanks to Bill Cook and Steve Johnson from Parks and Recreation maintenance).

***Tommy Stevens**, Director of the Division of Water Quality, reaches for another trash bag as he leads the cleanup of a stream near Raleigh during Earth Week.*

The core Streamwatch group canoes the creek to map out the location of the trash prior to the cleanup. This way, we can point people or groups to certain locations that need to be cleaned up the most. We have had groups of people (Raleigh Ski and Outing club, First Union Bank, the Jay-Cees, for example) who have been quite helpful over the years. We have averaged about 50 bags of trash and 60 or so tires per cleanup. We had seen a decrease in trash over the years except for last fall, when we pulled out 64 bags of trash, a couple of shopping carts and a whopping 143 tires (11 being the large truck tires). It was a very "tiring" day! If you have not come out to experience one of Raleigh's most abused yet beautiful resources, please do. At the end of the day, as you gaze over a beautifully clean creek, you have a great feeling of pride and time well spent.

If you want to get more involved in the cleanups, please e-mail or call (e-mail preferred.) We'd like to listen to any ideas that you might have about the cleanups and other Crabtree Creek conservation activities.

Dan and De Mott - 783-8439, e-mail dande@mindspring.com.

Neuse River Foundation & Stream Watch

Where can you go to kick bugs, play in the river, and learn about sedimentation and water quality monitoring? You can go to a "Neuse River Foundation - River Day".

The Neuse River Foundation (NRF) is a non-profit organization, started in 1980, to promote better water quality in the Neuse River and its tributaries. From the beginning, the founders knew education was key to their mission. With over 1.5 million people living in the watershed, it is crucial for residents of the Neuse River basin to learn to appreciate and become stewards of their river.

The Neuse basin covers 6,192 square miles, and the NRF long recognized that it could not adequately protect the entire river from its home base in New Bern. Our efforts require members throughout the basin to be the eyes, ears and voice for the river in their area. The Stream Keeper program, started in 1996, has dramatically increased the NRF's presence throughout the basin. In addition to adopting a stream to monitor and protect, Stream Keepers are charged with educating area residents about water quality in the Neuse. Stream Keepers in the Triangle area have found that "River Days" are excellent opportunities to educate their community through local stream based activities for children and adults.

The "River Day" idea originated with NRF Stream Keeper, Julia Harris, who is a home schoolteacher and organizer. She spoke with fellow Stream Keepers about an idea to teach home school students about water quality and protecting the Neuse in a fun setting. After NRF brainstormed with friends at the Divisions of Water Resources and Land Resources to plan the event, the first River Day was held. It was such a success that it has since become a regular part of Neuse River Foundation's educational program in the Upper Neuse.

What is a "River Day"? A "River Day" is an educational field trip offered to approximately 50 students at a time. Held by the water, and in the water, we give students an interactive and fun learning experience. Students are divided into four groups by age, and each group rotates through four activities that together provide a comprehensive look at the effect of pollutants, the importance of protecting water quality for humans and wildlife, and what individuals can do to protect the river. NRF Stream Keepers demonstrate the chemical test kit they use to monitor their adopted streams or creeks and lead a river walk, talking about the history of the Neuse River and pointing out signs of wildlife and how it can be threatened by different pollutants. A representative of the Division of Water Resources' **StreamWatch** program leads a bug kickin', teaching the students how

macroinvertebrates can be used as an indicator of the river's health. Finally, a representative from the Land Quality Section in the Division of Land Resources uses a model of a watershed to demonstrate how sediments pollute the river and how sedimentation can be prevented. Although the day is fun, it is also intended to be educational. With that in mind, students are sent home with a list of questions that their home school instructor uses to test what was learned that day.

The Neuse River Foundation offers students of all ages educational activities and opportunities to help protect the Neuse. For more information about "River Days", Stream Keepers, or the Neuse River Foundation, contact Heather Beard at (919) 834-7911.

Richland Creek Big Sweep and Stream Watch

The Umstead Coalition has adopted Richland Creek under the NC Stream Watch and City of Raleigh Adopt-A-Stream programs. We coordinate quarterly investigative walks along Richland Creek from it confluence with Crabtree Creek to NC54.

The most recent Stream Watch was March 13, 1999. David Wojnowski, the NC Stream Watch Coordinator, gave a presentation of macroinvertibrate sampling using a kick net. We had over 20 participants and divided into 6 groups to cover 6 miles of Richland Creek.

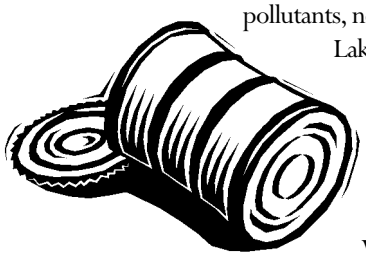
Our next Stream Watch is SATURDAY, JUNE 12. We will meet at 9:30 a.m. where Reedy Creek Park Road crosses Richland Lake, just past Schenk Forest in Raleigh.

The first combined BIG SWEEP / Stream Watch Event along Richland Creek was held September 19th, 1998. It was a great success, thanks to the hard work of dedicated volunteers: Frank Briden, Rod Broadbelt, Karl Brown, Robert Coxe, Allen Cruz, Doug Frederick, Scott Frederick, Shayne and Katina Gad, Barbara Harvey, Gary Hudson, Benson Kirkman, Doug Little, Ted and Binks Mew, Medhat Mohamed, Kirk Port, Richard Tibbs, Joyce Todd, Jean Spooner, and Dani Wise! Almost all of Richland Creek from its origins at Highway 54 to its confluence with Crabtree Creek was covered. Over 600 pounds of garbage was collected! Most of the trash was beverage containers: aluminum cans, plastic soda bottles, glass beer bottles, and those cute little one-shot liquor thing-a-ma-jigs. Assorted other plastics and Styrofoam were also abundant, particularly along portions of Richland Lake. Do we need special signs and garbage receptacles near the lake to deter littering by thoughtless and inconsiderate citizens?

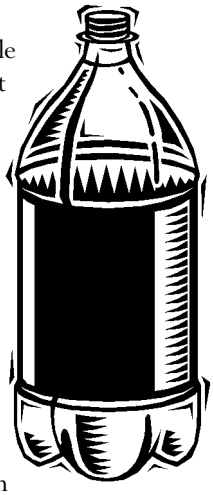
Other noteworthy observations included grading and fill dirt deposited within 10' of the creek along its headwaters, illegal refuse dumping off of Mt. Vernon Rd., metal doors from a bulldozer, and a pile of furniture and appliance cartons dumped next to Reedy Creek Rd. by the lake. Shipping labels allowed us to trace their origin to a specific store. The manager was quite embarrassed and eager to identify the delivery driver responsible.

Photos were taken at strategic spots along each section of the creek. These will be repeated at least every 3 months to provide baseline data and monitor physical changes in the structure of the stream's banks and beds. Due to construction at the Edwards Mill Road Extension and the Centennial Arena, unbelievable amounts of sediment and storm-water run-off have surged into Richland Creek, altering its normal hydrology, eroding its banks, and covering its bottom in clay, silt, and gravel. We hope that our notes and photos might help us win some restoration/preservation funding in the future along the corridor. It doesn't take a rocket scientist to understand that preventing environmental damage is much cheaper than repairing it down the road.

To see just how rapidly the landscape has been altered and how much sediment has been dumped into the creek, compare recent photos of the north side of Richland Lake to shots taken 12 months ago! Currently the lake is doing a wonderful job of allowing sediments to settle and filtering pollutants, not to mention that it is a gorgeous wetland and rich wildlife habitat. Richland Lake was constructed to serve as a flood-control /sedimentation basin which would be effective for many years to come. However, at the current rate of deposition, it is obviously inadequate. As part of an overall system to control excess flow into Crabtree Creek and the Neuse River, Richland Lake is aging prematurely. Dredging has been mentioned, yet it is an expensive, intrusive, and ecologically destructive activity. Other alternatives are being explored. Wake County has contracted a study of the rate of sedimentation into Richland and Shelly Lakes, which should be completed by the end of the year.



The good news is that part of Richland Creek is still in good condition. Downstream from Richland Lake, where there is still a good amount of wooded buffer, the water condition is admirable for a growing county. Minnows and crayfish are abundant, and mussels up to three inches long are not uncommen. Stream bank vegetation is lush and diverse, and there is ample evidence of wildlife. Allen Cruz collected shells and bones, deer and turtle skulls, for his middle school science classroom. At this point, I can say with conviction that Richland Creek waters flowing into Crabtree Creek are clean and life-supporting. It is our mission to keep them that way!



As part of our Stream Watch Program, we have borrowed a Water Quality Testing Kit, from the Neuse River Foundation. Richard Tibbs and Nina Baccanari have graciously agreed to conduct bi-weekly tests near Trinity Road and Ebenezer Church Road. So far all test results appear normal, and there are no problems of dissolved oxygen content, nitrate, ammonia, or phosphate levels. This is good, but not surprising news. In the Richland Creek corridor, organic wastes and fertilizer run-off have never been a big concern, due to the surrounding land uses – it's sediment and instream channel function we are most concerned about.

The biggest threats to the stream are not as much chemical as hydrological. By this I mean drastic changes in the speed and volume of water entering the creek. As upland vegetation is cleared, and bare clay and asphalt replace fields and woodlands, stormwater is channeled into the creek in unprecedented amounts at unprecedented rates.

Instead of filtering through the soil into the groundwater table, water is gullied and jettisoned into the stream corridor. The runoff carries oil and sediment and travels at high speeds with greater force and volume, eroding banks and vegetation, cutting and altering the channel, and covering the stream beds with clay and silt. This, in turn, destroys habitat for existing plants and animals, especially bivalves, amphibians, and many insects whose early life cycles are aquatic. During flood stages, the water levels are higher than in previous floods, and during drought periods the groundwater table is lower than ever.

Although change is a permanent feature in the life of a stream and its surroundings, recent human activities have accentuated the range, frequency, and duration of changes in the Richland Creek environment. If we want to preserve the water quality and ecological value of the Richland Creek corridor, we must ensure that change occurs within a manageable range.

We must keep water flows somewhat consistent, rather than adopting the extreme patterns of a storm-drain or sewer pipe. To do this, it is important to protect the lands along Richland Creek. By continuing careful monitoring of the Richland Creek Corridor, the Umstead Coalition hopes to attain the tools to do so.

Please come join us to see what's happening first hand, and to keep Richland Creek clean and beautiful!

Uli Gratzl (919) 859-4095)

http://umsteadcoalition.org - Umstead Coalition Hotline: 852-2268

Cape Fear River Watch Celebrates New Headquarters

The Cape Fear River Watch (CFRW) celebrated the renovation of its new headquarters with an open house on April 24th. Over 250 people toured the facility located at 617 Surry Street, in Wilmington North Carolina (Near where Castle Street meets the Cape Fear River). This is the first such headquarters owned by a riverkeeping organization anywhere in the United States.

There was standing room only for the formal address given by John Cronin, the Hudson River Keeper. He is the co-author with Robert Kennedy, Jr. of the popular book, *The Riverkeeper.*

The building has come a long way since the group acquired it last year. The leaky roof was replaced, central heating and air conditioning were added and the interior was remodeled to accommodate offices, a library and meeting space for environmental education activities. Nearly all the work was done by volunteers and many construction materials were donated by members and local businesses.

A spectacular copper sculpture of a six-foot catfish was created by local artist Andy Cobb and hangs in the River Watch library/conference room.

Canoe trips and other public outings are a regular facet of the group who recently rallied their members on a phone and letter writing campaign to protest wetlands destruction in the Cape Fear River Basin. Future plans include continuing to offer seminars and workshops on environmental topics.

The Cape Fear River Watch (CFRW) is a nonprofit organization formed in 1994 for the preservation and protection of the Cape Fear River and its basin. The CFRW promotes environmental awareness and frequently organizes activities that educate the community on the importance of our waters. River Keeper Bouty Baldridge is one of three Riverkeepers in the state of North Carolina.

Current officers are Skip Fry, President (of Wilmington Marine Center); Don Cooke, Vice President (of Carolina Power and Light); Terry Smith, treasurer (CPA); Melanie Bruce, Secretary (UNCW Researcher). The CFRW has a 15-member Board of Directors that includes scientists educators, business owners, and others.

Each year, CFRW trains many UNCW interns majoring in diverse disciplines including environmental science, sociology, and English.

The Cape Fear River Watch now has a WEB site at: http:/capefearriverwatch.wilmington.org. Phone: (910)762-5606.

CRC Sets Aside Shoreline Rules: Proposes Buffer Requirement

ATLANTIC BEACH- The N.C. Coastal Resources Commission (CRC) will take steps to require a 30-foot buffer on waterfront lots throughout the coastal region, but will turn other water quality protection proposals over to a study group for recommendation.

In a unanimous vote on March 26th, the CRC chose to set aside its current proposals for protecting coastal water quality and focus on the buffer requirement. The decision followed a Thursday presentation by an independent consultant hired by the Division of Coastal Management to help improve citizen involvement in the CRC's water quality protection efforts.

The proposed buffer would apply to all lots along public trust waters in the 20 coastal counties. Only water-dependent structures, such as piers, boat ramps and erosion control structures, would be allowed in the buffer, and property owners would have to get permits to build those structures. The buffer would not apply on the oceanfront.

Public hearings on the buffer proposals will be held this summer. There will be one hearing in each of the 20 coastal counties.

Meanwhile, a group representing interested citizens will begin looking for other solutions to coastal water quality problems. That group will make recommendations and proposals to the CRC, legislators, or other environmental commissions.

The CRC will continue to examine erosion-control issues as a separate rulemaking issue. A CRC committee separated erosion-control from the shoreline rule package at an earlier meeting.

Contact: Alison Davis, (919) 715-7357

ANNOUNCEMENT

The N.C. Department of Environment and Natural Resources on behalf of the Environmental Management Commission (EMC) will conduct public hearings in order to receive public comments on the proposed reclassification of:

Rough Creek in Haywood County (French Broad River Basin) to include the supplemental Trout (Tr) and Outstanding Resource Waters (ORW) classifications and Wesser Creek in Swain County (Little Tennessee River Basin) to Trout Waters (TR).

Public Hearing

Location: Haywood County
Commissioner's Boardroom
215 North Main Street
Waynesville, NC
Date: May 25, 1999
Time: 6:00 p.m.

Lake Waccamaw in Columbus County (Lumber River Basin) to Outstanding Resource Waters (ORW).

Public Hearing

Location: Southeastern Community
College Auditorium
4564 Chadbourne Highway
Whiteville, NC
Date: June 21, 1999
Time: 6:00 p.m.

Lake Phelps in Washington and Tyrell Counties (Pasquotank River Basin) to Primary Recreation (B) and Outstanding Resource Waters (ORW).

Public Hearing

Location: Creswell Town Hall
(Fire Department Building)
109 West Main Street
Creswell, NC
Date: June 24, 1999
Time: 6:00 p.m.

Lake Montonia in Cleveland County (Broad River Basin) to High Quality Waters (HQW).

Public Hearing

Location: Kings Mountain City Hall
101 West Gold Street
Kings Mountain, NC
Date: July 13, 1999
Time: 6:00 p.m.

ADDITIONAL INFORMATION

Copies of pertinent rules can be found on the internet at: http://h2o.enr.state.nc.us/Rules/ruleindex.html

Further explanations and details on the proposed reclassifications may be obtained by writing or calling:

Liz Kovasckitz
DENR/Division of Water Quality
Planning Branch
P.O. Box 29535
Raleigh, NC 27626-0535
(919) 733-5083, ext. 527

National Rivers Cleanup Week
May 15-22, 1999

Stream Watch groups are invited to participate in the eighth annual National River Cleanup Week, coordinated by America Outdoors, the largest national association of outfitters and guides. Additional support has been provided by the Bureau of Land Management. Many national recreation and conservation groups assist the event as associate national coordinators (American Whitewater Affiliation, Professional Paddlesports Association, American Canoe Association and the Water Environment Federation) by promoting the event among their members. For more information and registration form call (423-558-3595) or visit its Web Site at: www.americaoutdoors.org

Stream Watch Welcomes New Groups

The North Carolina Stream Watch program would like to welcome the following groups who have joined our program

WELCOME ABOARD ! ! !

Group	Adopted Stream	River Basin
Biology Class of Nash Comm. College	Stoney and Maple Creeks	Tar-Pamlico
New Garden Friends School	Small stream behind the Guilford College Campus	Cape Fear
4-H Club Stream Watch	Rock Hole Creek	Yadkin-Pee-Dee
Ellerbee Creek Watershed Assoc.	Ellerbee Creek	Neuse
Richland Creek Stream Watch (Umstead Coalition)	Richland Creek	Neuse
Pritchard Creek Stream Watch	Pritchard Creek	Haw sub-basin
Wilson Creek Stream Watch	Wilson Creek	Catawba
Middletown Watershed	Middletown Creek & Canal	Tar-Pamlico

James B. Hunt Jr., Governor

Bill Holman, Secretary

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