

50 MILLION FISH DEAD . . . AND COUNTING

In September, residents and visitors to the Craven County area began witnessing the largest fish kill in the Neuse River in decades and, at the time of publication, the fish kill event was still happening. The fish kill covered a 40-square-mile area of the River and its primary tributaries. During this current fish kill, millions of fish died and many washed ashore covering area beaches and parks.



Thousands of dead menhaden float on the Neuse River. On parts of the River, the fish were too numerous to count.

The Lower Neuse RIVERKEEPER®, staff and volunteers estimated that more than 50 million fish, mostly Atlantic menhaden, died. Workers with the NC Division of Water Quality Rapid Response team reported a count of about 20 million fish dead. The difference in the numbers provided by the two groups is likely the result of the limitations placed on the Rapid Response Team which cannot work outside of the regular 40-hour work week. The Lower Neuse RIVERKEEPER®, staff and volunteers were

out on the River during much of the daylight hours as well as weekends.

While the recent fish kill has affected many species of aquatic life, it has impacted the menhaden the most. Menhaden are fished commercially and processed at reduction plants for oil and bone meal. The menhaden

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UPCOMING EVENTS

SEE WEBSITE FOR MORE
DETAILS AND LOCATIONS

OCTOBER 21, 2009
MUDDY WATER WATCH
CLASS (DURHAM)

NOVEMBER 17, 2009
ANNUAL MEETING AND
PANEL DISCUSSION

JANUARY 2010
RIVERKEEPER FILM
FESTIVAL

MARCH 16, 2010
TASTE OF COASTAL CAROLINA

APRIL 3, 2010
ANNUAL SPRING NEUSE
RIVER CLEANUP

FALLS LAKE: ON THE ROAD TO RECOVERY?

In recent years, increased stormwater contamination and point source discharges have contributed increasingly high levels of bacteria and nutrients, threatening to ruin the health and beauty of the Falls Lake State Recreation Area and Water Supply Reservoir. Falls Lake is the largest impaired water source in the state and the General Assembly has ordered that rules be developed to clean it up. The Falls Lake Stakeholder Project is open to the public and has been working for years trying to develop a science-based set of rules that is sound, practical and achievable. However, despite the thousands of hours already devoted to the stakeholder and technical advisory process, the state Division of Water Quality (DWQ) received a second extension of the deadline for those rules.

Falls Lake is the main source of drinking water for nearly half a million people throughout Wake County and provides recreation and joy to the all of the surrounding communities. State and local officials are well aware that the lake is polluted and that the situation is getting worse as development around the lake carries more urban, road and agriculture runoff into streams feeding the reservoir. As Senator Josh Stein recently said, "Falls Lake is polluted today, and every year we go without rules in place, it's going to get worse".

Through the stakeholder process, as well as grassroots advocacy, the Neuse RIVERKEEPER® Foundation has been work-

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**CALL THE NEUSE
RIVERKEEPERS TO
REPORT WATER
QUALITY CONCERNS
IN THE NEUSE
RIVER BASIN.**

Fish Kill (continued from p. 1)

byproducts are used in poultry and livestock feed, cosmetics and paint.

What Causes a Fish Kill?

Fish kills can be the result of numerous issues involving water quality, including low dissolved oxygen (DO) levels. There are indicators that this particular fish kill, while being somewhat tied to low DO, is related to other troubling causes which are the focus of further study by the Foundation, NC State University and NC Division of Water Quality. So what causes low DO in the Neuse River? The Neuse River fish kills are directly related to the excessive amount of nutrients in the River. Nutrients are compounds such as nitrates and phosphorus commonly found in human and animal waste. Nutrients enter the waterway from industrial animal operations, waste treatment plants, fertilizer and stormwater runoff from lawns and

agricultural operations.

The Foundation is working to obtain data that will provide a clearer indication of the reason for this fish kill. Working in conjunction with the State and NCSU, sampling and monitoring is being done to find answers. The Neuse Riverkeepers have developed a Water Quality Monitoring Program through which regular and periodic monitoring and sampling will be done by volunteers to develop a set of data points that will hopefully help predict and identify the causes of these massive fish kills. We will be looking for volunteers to assist with the monitoring. Please consider making a donation to support this valuable program.

High levels of nutrients cause dense growths of algae. When the sun shines, algae use nutrients and produce oxygen through photosynthesis. During the night and at times of low

sunlight, algae switch from photosynthesis to respiration and consume the oxygen needed by the fish. An increase in algae growth also can lead to aerobic bacteria becoming more active and depleting the oxygen in the water even further.

What Can You Do?

The Neuse River has been declared by the EPA and DENR to be a nutrient sensitive water. The large fish kills will continue until we slow down the flow of nutrients into the River. You can help by:

- Joining the volunteers who work to eliminate hog waste lagoons;
- Not using nitrate- and phosphorus-based fertilizers on your lawn;
- Applying (if you MUST) fertilizers on your lawn sparingly;

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1,165 EIGHTH GRADE STUDENTS PARTICIPATE IN RIVERKIDS PROGRAM

In May, we concluded another year of the RiverKids program. Partnering with the N.C. State University Center for Applied Aquatic Education (CAAE), the Foundation began this program in 2004 to provide a hands-on educational opportunity for all eighth grade students in Craven County to learn about water quality issues.

The students first received an introduction to the Neuse River and its watershed in a classroom setting. They learned about pollution issues facing the river, basic water quality testing and monitoring techniques, and ways in which they can make a personal difference in the health of the Neuse River watershed.

The class then moved to the banks of the river where students learned how to build water testing equipment and use professional water testing kits. They collected water samples and performed the appropriate tests while

learning why specific tests are important in determining water quality. The test results were then identified and the impact of the test results, as they related to aquatic life in the river, was discussed. Test kits were also sent back with each eighth grade teacher so they could continue to engage the students in testing of local waterways.

The final part of the program is always a big hit with the students. They take a field trip on the Neuse River aboard the Research Vessel (R/V) Humphries. The R/V Humphries is a 48-foot boat owned by the CAAE and operated under the supervision of Dr. JoAnn Burkholder. While aboard the R/V Humphries, the students see the kind of research and testing that the professional staff of the vessel perform to assess the health of the Neuse River. In many instances, this is the first time that the students have been on a boat. The hands-on activities in this program are an important part of

the learning process for students this age.

This year, the RiverKids program was led by Brian Westcott, Program Coordinator in the Foundation's New Bern office. A number of volunteers assisted Brian and the crew of the R/V Humphries.

The importance of a program like RiverKids, in addition to exposing the students to new learning experiences, is to engage students to become the future protectors of our water resources. There is a saying that "We do not inherit the rivers from our parents . . . we borrow them from our children". RiverKids provides a channel to achieve the goal of educating our future.

Funding for the 2009 RiverKids program was provided by GlaxoSmithKline through its Ribbon of Hope program.

STORMWATER IMPROVEMENTS IN EASTERN WAKE COUNTY

On July 27, 2009 the Wendell Board of Commissioners adopted a comprehensive stormwater management ordinance, stepping into a leadership role in the protection of water resources in Eastern Wake County. Rolesville and Zebulon also are reviewing the same package for adoption which would maintain consistency in the implementation of this ordinance which will likely be administered by Wake County through agreements with the municipalities.

The ordinance was written over a three year period by East Wake Towns, Wake County, the Upper Neuse **RIVERKEEPER**[®], and other stormwater professionals.

After discussion, the Board of Commissioners passed the stormwater ordinance by a vote of 4-0, becoming the first of the East Wake communities to take a strong stand on protecting the future of their water resources from

the problems associated with urban stormwater runoff and requiring responsible development in their community.

Responding to a comment made earlier in the evening, Commissioner Baynes said, "I don't make any apologies for considering some of the decisions we make at this table as life and death decisions...if anybody out here thinks that environmental issues are not life and death issues, you better rethink that, because they are. They may not be for us today, but they will be for the future, so let's get serious."

Prior to adoption of the ordinance Wendell had the least restrictive stormwater regulations in Wake County. In the recent past, two entities wanted to be annexed to Wendell simply because they had no impervious surface rule. This would have allowed them to build substantially more on the same piece of property without any

additional environmental protections in place.

"I think the citizens of Wendell can be proud of the decision made last night; it was forward thinking and works to protect the valued resources of current residents," said Alissa Bierma, the Upper Neuse **RIVERKEEPER**[®], who worked to support the ordinance. "This is not an ordinance that does not allow buy downs; it is not something that prevents development; it is something that encourages people to take responsible actions that protect water quality."

The effective date for this ordinance will be the execution date of an Interlocal agreement with Wake County to administer the rules. The Rolesville planning board has adopted the ordinance and Zebulon plans to review the ordinance this fall.

PURE FARMS PURE WATERS

The Neuse **RIVERKEEPER**[®] Foundation continues to lead efforts to put an end to the excessive pollution of the waters of NC by the industrial swine industry on many fronts. The broad sweeping affect of this pollution on eastern NC is reflected by the Foundation's many partners in this fight, including three other NC Riverkeeper programs, Rural Empowerment Association for Community Health (REACH), Concerned Citizens of Tillery and the NC Environmental Justice Network. The people represented by these groups, as with the four **RIVERKEEPER**[®] programs involved in the Pure Farms Pure Waters campaign, share the same concern for the general lack of support from our elected officials to put a stop to the continued dumping of hog waste in our air, water and communities.

Recently, we have taken some new directions in an attempt to better educate members of the General Assem-

waste from swine farms. In addition to focusing on the environmental impacts to the water, air and groundwater, we are now bringing light to the impact on public health.

The month of July was particularly significant due to several activities that have taken place. And the results of these activities, as you will see in a moment, should bring a degree of embarrassment to a number of governmental officials.

On July 6, a letter from four Riverkeeper programs (including the Lower Neuse **RIVERKEEPER**[®]) was hand-delivered to Governor Beverly Perdue requesting that she commission a Task Force to identify and study the impacts of the swine industry on the environment, on public health and the economy of North Carolina. We requested that she reply to us by July 31 with a plan. The Governor responded after the deadline and declined to get involved in this political

issue.

Also in July, Senator Charlie Albertson (Duplin and Sampson Counties) managed to pass legislation in the Senate that would prevent any new rules to be implemented to add additional monitoring to the swine facilities in North Carolina. This legislation was designed to protect the swine industry from disclosing information about the waste that is leaving the swine facilities. The proposed legislation was never heard by the House. We will watch closely to see if the bill is reintroduced in next year's legislative session.

We will continue to work to educate and encourage our legislators to do the right thing...for us, and for future generations of North Carolinians. Contact the Foundation to learn how you can help protect the public trust waters of the Neuse River watershed.

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Lower Neuse RIVERKEEPER®
252-637-7972
- Alissa Bierma**
Upper Neuse RIVERKEEPER®
919-856-1180
- Elaine Whitford**
Director of Development and
Communications
919-856-1180
- Brian Westcott**
Program Coordinator
252-637-7972
- Diane Baldwin**
Office Manager
252-637-7972
- Stephanie Bishop**
Development Associate
919-856-1180



Falls Lake (continued from p. 1)

ing to support efforts to clean up Falls Lake as soon as possible. We cannot afford to wait to put better stormwater controls in place, continuing to dig ourselves into greater environmental debt, as we develop a strategy to eliminate our existing environmental woes. In addition, if the Falls Lake Rules are to be a further few years off, then we must find additional ways to protect Falls Lake in the meantime. Increased review of construction sites through volunteer efforts like Muddy Water Watch can help keep nutrient-laden sediment out of our waters. Proper disposal of household grease and chemicals can help prevent sewer blockage and overflows that leak into surrounding creeks and eventually make their way to the Lake. Local and State governments and elected officials need to know that the citizens of the Neuse River Basin want Falls Lake cleaned up now!

Falls Lake becomes sicker each day that passes without protective measures in place. With your help, the Neuse RIVERKEEPER® Foundation will continue to fight for effective and efficient measures to protect and restore Falls Lake so that we may pass on to our children and grandchildren a legacy of beauty and health, not one of bacteria and filth.

Keep an eye on the “Take Action” section of the Foundation’s website for opportunities . . .

Fish Kill (continued from p. 2)

- Disposing of waste from companion animals in trash cans;
- Spreading the word that what goes into the storm drains on your street flows directly into the Neuse River without passing through a waste treatment facility; and
- Contact your local and state representatives to voice your concern for the condition of the Neuse River.



WHAT’S A RIVERKEEPER® ?

In 1993, the Neuse RIVERKEEPER® Foundation hired the first Neuse RIVERKEEPER® and charged him with leading efforts to improve water quality in the Lower Neuse River. Seven years later, the Foundation opened an office in Raleigh and created a second Neuse RIVERKEEPER® position. Today, Larry Baldwin, Lower Neuse RIVERKEEPER®, and Alissa Bierma, Upper Neuse RIVERKEEPER®, monitor and protect all 248 miles of the River as well as other tributaries in the basin.

The Riverkeepers wear many hats as they work to protect water quality and aquatic life in the basin, including monitoring and sampling the basin’s waterways to locate or prevent pollution events; confronting polluters; advocating for sound legislative policy at the local, state, and federal levels; enforcing the Clean Water Act; educating citizens in the Neuse River communities on how their daily lives impact the River and how to ensure a healthy river; and promoting recreational enjoyment of the Neuse River.

The Neuse Riverkeepers are the voice of the Neuse River and all living things that depend on the River for survival.

Did you know . . .

On April 4, 2009, nearly **300 volunteers** collected **392 bags** of trash and **121 tires** from the Neuse River amounting to **13,920 pounds of trash.**

Taste of Coastal Carolina

**Tuesday, March 16, 2010
6:00-8:30 p.m.**

New Bern Riverfront Convention Center

Plan now to attend! Enjoy food from area restaurants, watch "Culinary Combat", and support the Neuse RIVERKEEPER® Foundation at its 8th annual event. Look for more information coming next month. Advance ticket sales for members begin on December 1.

Follow the Neuse Riverkeepers on
Twitter!

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RIVERKEEPER® Foundation on
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Visit our website:
www.neuseriver.org

RIVERKEEPER® Film Festival

Wilson - DelMastro Auditorium: Thur., Jan. 14, 2010
Oriental - The Old Theater: Fri., Jan. 15, 2010
Raleigh - The Murphy School: Sat., Jan. 23, 2010
Kinston - Visitor's Center: Thur., Jan. 28, 2010
Smithfield - Neuse Little Theater: Fri., Jan. 29, 2010
New Bern - Unitarian Universalist Church: Sun., Feb. 7, 2010
Durham: TBA

This year's Festival will include an Oscar-nominated film as well as the winning short documentary from the Neuse Student Film Contest.

Special restaurant discounts included with ticket!

Last year, we had sell-out crowds at several locations so buy your tickets early.

Tickets go on sale in November.



**P. O. Box 15451
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