



Currents

WINTER/SPRING 2000

The Newsletter for the White Oak River Basin

Monitoring Matters

Throughout the White Oak basin there are several projects where the North Carolina Cooperative Extension Service is investigating water resources and determining which best management practices (BMPs) will help improve water quality. One of the main tools we use to assess pollutants of concern is monitoring.

Monitoring is the periodic sampling of the water resource and testing for specific levels of contaminants. It determines the source and the magnitude of the problem. All of the projects in the White Oak basin are dealing with what is considered non-point source pollution, meaning that pollution comes from a variety of sources.

Monitoring is essential to get a "picture" of the basin before, during and after implementation of the BMPs to determine their effectiveness. The main pollutants of concern in the White Oak Basin include sediment, bacteria, nutrients and stormwater runoff.

Members of all the White Oak basin project teams will use such monitoring data to discover what the most effective course of action will be to ensure cleaner water.

— Dani Wise, *North Carolina Cooperative Extension Service*



Wilson Bay Hosts "Solutions" Workshop

NC State University researchers and local leaders review a map of the Wilson Bay watershed.

Nancy White, Extension specialist in the School of Design at NC State. "It is much easier to explain the science of why these best management practices (BMPs) work when people can see examples already in place."

After the brief presentations, residents broke into groups of four, each examining a map of the Wilson Bay area and discussing various neighborhood water quality issues. In addition to a map of the area, every table had glue and pieces of paper with the names of possible BMPs on it. Each group was instructed to glue a BMP to a place in the community where they thought it would make sense. Afterwards, each group presented their results, with many groups naming the same BMPs to "hot-spot" areas in the neighborhood.

The resulting, neighborhood-

(Continued on page 3.)

North Carolina State University water quality and community design specialists visited the Wilson Bay watershed in early December to show residents possible solutions they can use to improve Wilson Bay's water quality.

The community design workshop began with a slide presentation from local leaders and university researchers outlining the basic problems – like nutrient overloading, an increase in impermeable pavement – and defining available solutions – such as rain gardens, stormwater wetlands and grassy swales.

"We wanted to use visuals to begin the workshop," says Dr.

Workshops will focus on

**As North Carolina's
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Coastal Development

There is no off season for coastal development. As North Carolina's economy continues to boom so too does coastal development. North Carolinians, along with many out-of-state residents, continue to seek their own slice of Atlantic paradise, and the inevitable happens —local leaders must try to balance the economic good times with responsible stewardship of our natural resources.

The North Carolina Cooperative Extension Service will be holding workshops that will show local coastal leaders how to manage the increased demand placed on coastal resources. The workshops will explain how to minimize coastal development's impact on water quality and shellfish habitat.

"More people means more development. And more development means more water

quality impacts," says Bill Hunt, urban stormwater specialist of the North Carolina Cooperative Extension Service at NC State University. "The challenge is to maintain what attracts people here in the first place."

Shoreline stabilization, improving septic systems, and constructing wetlands will be discussed at the workshops. The workshops will also serve as a way to connect local leaders with state agencies who specialize in these types of issues.

"These workshops are full of not only what can be done, but where local leaders can find the money to do it," says Hunt. "We are including sessions on preventive planning, sediment and erosion control and how to manage stormwater better. We are also having various state agencies discuss what they have to offer the local officials."

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*—Bill Hunt, urban stormwater
specialist, NC State University*

Coastal Development Workshop Dates

- March 2** Nags Head, Ramada Inn; Contact: Susan Ruiz-Evans
susan_ruiz-evans@ncsu.edu 252.473.1101
- March 8** Morehead City, Crystal Coast Civic Center; Contact: Joni Tanner
joni_tanner@ncsu.edu 919.513.1678
- March 15** Wilmington, Cooperative Extension Center; Contact: Joni Tanner
joni_tanner@ncsu.edu 919.513.1678

Registration for the March 2, 2000 workshop is \$15 before February 25, 2000. After that date, registration is \$25. Registration for the March 8 and March 15 workshops is \$30 by March 1. After that date the registration is \$40. Registration includes lunch and break service.



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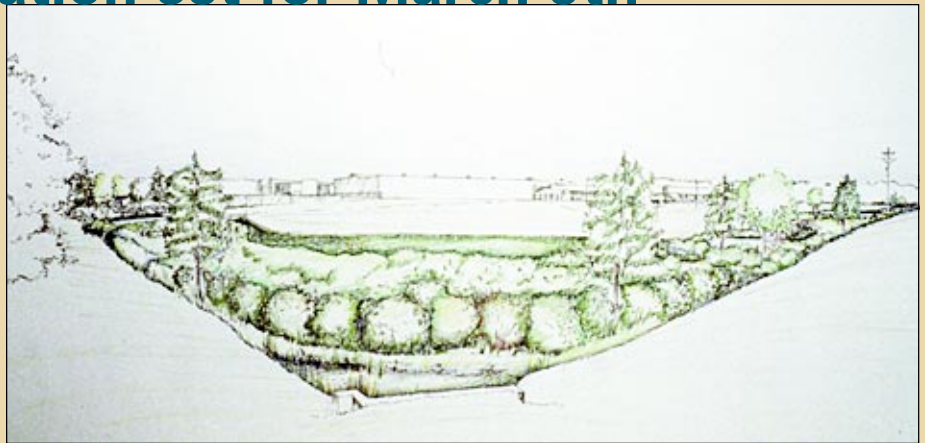
Easement Celebration set for March 9th

The effort to develop sustainable North Carolina communities will receive a booster shot on March 9, 1999 in Newport, North Carolina.

The Carteret-Craven Electric Cooperative is donating 5 acres of land to the state of North Carolina so it can be restored to its original wetland status. The donation marks the first formalized easement for the state's Wetland Restoration Program.

"We all need to do our part, and this is a great example of small business taking a leadership role in environmental restoration" says Dr. Nancy White, design extension specialist with the North Carolina Cooperative Extension Service at North Carolina State University.

According to White, this community-based project will generate useful information on



land-use management strategies that will protect the area's aquatic resources. The main objectives of the project are to quantify the effect of land-use change on shellfish closures and to assess techniques that can be used to deflect those impacts.

White says that just as important as the science connected with this project, is the cooperative, multi-disciplinary, multi-

This concept drawing will become more of a reality in the coming months of 2000.

agency approach involved.

"We talk all the time about partnerships on campus," says White. "I can think of no finer example of this concept put to action than this wetland restoration project."

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Solutions *(continued from page 1.)*

scale approach was the driving force behind the workshop, according to Glen Hargett, Director of Community Affairs for the City of Jacksonville. "This event was an on-the-ground, get answers from the community forum," says Hargett "The workshop was a way to say 'here's what's available, you choose.'"

Hargett says that such citizen buy-in is critical in implementing new pollution-control methods so residents feel comfortable with putting these BMPs in their community.

At the end of the workshop, NC State researchers gathered the BMP-filled maps and took them to Raleigh. There, NC State specialists will evaluate the BMPs the residents' designed for their community and determine which



ones are the most effective – considering land-use and specific pollutant-problems – and then hold a follow-up workshop to review the plan with Wilson Bay citizens.

Extension specialist Nancy White (second from the left) works with extension agent Diana Rashash (second from the right) in explaining possible solutions to local residents.

Easement *(continued from page 3)*

At the university level, North Carolina State University's School of Design, Department of Biological and Agricultural Engineering and Duke University's School of the Environment each have roles in the project. The North Carolina Cooperative Extension Service and North Carolina Sea Grant are also project leaders.

At the state level, the project has fully vested working partnerships with the North Carolina Clean Water Management Trust Fund and Department of Environment and Natural Resources –Division of Water Quality, Wetlands Restoration Program and Division of Environmental Health – Shellfish Sanitation Program.

The Carteret Craven Electric Cooperative is sponsoring the celebration, which will start at 11:00am. It will be held on the grounds of the restoration site at the Cooperative in Newport, North Carolina.



BASIN BASICS

- The White Oak River Basin contains 1,264 square miles of land area.
- The White Oak River Basin has 277 miles of freshwater streams.
- Most of the surface water in the White Oak River Basin is salt water.
- The White Oak River Basin is home to many endangered coastal species.

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