



North Carolina Coastal Federation | 3609 Hwy 24 (Ocean) | Newport, NC 28570
Phone: 252-393-8185 | Fax: 252-393-7508 | Email: nccf@nccoast.org | Web: <http://www.nccoast.org>

Press Release

FOR IMMEDIATE RELEASE

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Contact: Frank Tursi, Cape Lookout Coastkeeper
Phone: 252-393-8185; 252-241-3505 (cell)
Email: lookoutkeeper@nccoast.org

Study Finds High Bacteria Levels in White Oak

Ocean, N.C. -- The White Oak River is in trouble, and polluted runoff from parking lots, driveways, rooftops and other hard, constructed surfaces is the primary culprit.

That's the conclusion of a three-year, federally-funded study headed by the N.C. Coastal Federation, a local town and two state agencies. The study focused on the bacteria that are plaguing the White Oak and closing its oyster and clam beds. It found very high levels of fecal coliform bacteria in four watersheds in the lower river near Cedar Point. In the most extensive bacteria testing done on the river, more than 200 water samples were drawn from almost 70 scattered sites. Eighty-nine percent exceeded the federal health standard for shellfish waters. Of the 113 samples taken from the largest watershed, Boathouse Creek, all but three exceeded the standard.

The study outlines a series of voluntary steps that can be taken to reduce the flow of stormwater into the river. They include reworking existing storm ditches to allow more runoff to soak into the ground before it reaches the river, educating people about the effects of stormwater and how to prevent their pets from contributing to bacteria pollution and allowing developers to use more innovative techniques to control runoff.

Those conducting the study will present their results and recommendations at a public meeting March 2 at White Oak Elementary School in Cape Carteret starting at 7 p.m. People will have an opportunity to comment and ask questions.

People can read the entire study at the N.C. Division of Water Quality's website, http://h2o.enr.state.nc.us/tmdl/TMDL_list.htm#Draft_TMDLs. They can send written comments to Aduigna Kebede of the division's Planning Section at adugna.kebede@ncmail.net or to NCDWQ Planning Section, Attn: Aduigna Kebede, 1617 Mail Service Center, Raleigh 27699. Comments will be accepted until March 18.

"We encourage everyone who cares about the White Oak to attend this important meeting," said Frank Tursi, the federation's Cape Lookout Coastkeeper® and the study's project leader. "This a great opportunity to understand what's going on in our river and how we can begin to fix it."

The bacteria levels in the White Oak get so high, especially after moderate rains, that the state closes much of the lower river to shellfishing because the oysters and clams would be

unsafe to eat. In fact, about 2,200 acres, or almost two-thirds of the lower White Oak, are now permanently closed to shellfishing or close temporarily after a good rain.

Under the federal Clean Water Act, the river is considered “impaired,” and the state is obligated to take steps to reduce the contamination so that the river once again meets the bacteria standard. In the first step to restore the river, the state’s water quality division three years ago teamed up with the federation; Cedar Point, a small town in western Carteret County that borders the river; and the N.C. Department of Transportation, which maintains N.C. Highway 24. They received an EPA grant to determine the sources of the bacteria in four watersheds that border Cedar Point – Dubling and Boathouse creeks, Hills Bay and the area north of the N.C. 24 bridges to Swansboro – and come up with a plan to reduce them.

In the jargon of the Clean Water Act, the study’s main goal was to devise TMDLs for the watersheds. That stands for total maximum daily load, a computer calculation of the amount of pollutants that can be dumped into the water without violating water-quality standards. The study’s partners contracted Baker Engineering of Raleigh to do the modeling.

The first two years of the study were spent taking water samples. Twenty-five trained volunteers sampled bays, creeks, roadside ditches, boat ramps and mosquito canals for fecal coliform. That species of bacteria isn’t generally harmful. But it’s found only in the digestive tract of warm-blooded animals. If it’s in the water, there’s a good chance that harmful bacteria are also there

At many of the sampling sites, the bacteria levels were hundreds of times higher than the standard. Levels in some of the samples drawn from storm ditches that drain N.C. 24, the main road through the watersheds, were tens of thousands of times higher.

Genetic testing of some of the bacteria samples confirmed that wildlife and pets are the primary sources, Tursi said. Those sources have always been present in the watersheds, he explained. In an undisturbed coastal landscape, the bacteria from animal droppings rarely make it to the water because rain water soaks into the ground, is taken up by vegetation or evaporates. But the much of the land in the study area is covered with hard, constructed surfaces, like roads and parking lots, that increase the flow of runoff. Drainage ditches crisscross the landscape.

“The ditches have one purpose: Move runoff as quickly as possible to the river,” Tursi said. “But with it goes a host of pollutants, including bacteria.”

The study’s partners concluded that trying to reduce the sources – wildlife and pets -- was unreasonable. Instead, they turned their attention to the land. The study’s recommendations focus on various ways to reduce the flow of stormwater into the river.

“Where the bacteria are coming from isn’t as important as how it’s getting into the water,” Tursi said. “We can’t do much about the sources, but we can try to keep it from entering the White Oak. Restoring the land may be the key to helping a troubled river.”

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***About the North Carolina Coastal Federation:
“Citizens Working Together for a Healthy Coast”***

The North Carolina Coastal Federation (NCCF) is the state’s only non-profit organization focused exclusively on protecting and restoring the coast of North Carolina through education, advocacy and habitat restoration and preservation. NCCF headquarters are located at 3609 Highway 24 in Ocean between Morehead City and Swansboro and are open Monday through Friday from 8:30 am to 5 pm.

The headquarters include NCCF’s main offices, the Cape Lookout Coastkeeper office, a gift shop, Nature Library, Weber Seashell Exhibit, ShoreKeeper Learning Center, and adjoining nature trail. The NCCF also operates field offices in Wilmington and Manteo. For more information call 252-393-8185 or check out NCCF’s website at www.nccoast.org