DURHAM 1869 CITY OF MEDICINE

WATERWAYS

CITY OF DURHAM Stormwater Services

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WATERWAYS is a semiannual newsletter to inform Durham residents about various elements of the City of Durham's stormwater management program. Public Education, Stormwater Infrastructure (drainage and flooding), and Water Quality are the three main areas in Stormwater Services.

Water Quality Watch

Durham streams benefit from new waste stations and citizen stream watches

New Dog Waste Stations

Stormwater Services is partnering with Durham Parks and Recreation to install 50 new dog waste stations at city parks and trails. The customized sign informs dog walkers that leaving pet waste creates a water quality problem.

Pet waste left on streets, yards, and trails washes into storm drains or streams when it rains, adding harmful bacteria and nutrients to the waterways. Each gram of dog waste contains 23 million fecal coliform bacteria. When you add up all of the bacterial and viral pathogens that may be flowing into Durham's streams from dog waste each day, the sum is a big threat to aquatic ecosystems and human health.

In addition to pathogens, dog waste contains nutrients like nitrogen, which may result in algal blooms and low dissolved oxygen levels. Many fish kills in North Carolina rivers have resulted from such low-oxygen conditions.

As part of Durham's public involvement and participation program, the following two stream stories are presented and represent the views and experiences of our local stream watch groups.

Stream Watching on Northeast Creek

by Michael Pollock, Northeast Creek Stream Watch

Most of the area in Durham between Angier Avenue and Fayetteville Street and south of Riddle Road is in the valley of Northeast Creek. The creek starts as seemingly insignificant ditches and streams in a car junkyard, pastures, and woods near Bethesda. The stream pours over some waterfalls and becomes larger as it flows into Research Triangle Park. Before crossing I-40 near Lowes Grove, it picks up the branches that flow from Hillside High, through Penrith and other subdivisions. Water from the creek flows through Jordan Lake and the Haw River to the Cape Fear River, eventually reaching the ocean near Wilmington.

If you have a stream story to share, send it by e-mail it to adoptastream@durhamnc.gov

The forest around the creek as it flows by Parkwood and further downstream is some of the wildest and oldest in Durham. There are very large willow oaks, beech, and loblolly pines. Throughout the valley yellow trout lilies, white spring beauties, buckeyes, and other flowers carpet slopes in March before the trees leaf out. Thickets of edible pawpaws feed the caterpillars of bold black and white zebra swallowtail butterflies in the summer, followed later by stands of yellow tickseeds and white asters and bonsets that attract migratory monarchs.

Northeast Creek is very rich in wildlife, but it is in many ways negatively affected by people, and is officially classified by the U.S. Environmental Protection Agency as impaired downstream of the wastewater treatment plant. Much of the basin is also open to development and is degraded by sedimentation and polluted runoff. For these reasons, in winter 2005, Northeast Creek Stream Watch was formed. The group's goal is to safeguard and improve the creek's water quality and

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IF YOU THINK PICKING UP DOG POOP IS UNPLEASANT, TRY DRINKING IT

Pet waste washes into storm drains, polluting our rivers, lakes, and drinking water sources.

SCOOP, BAG, AND CAN THE POOP

Northeast Creek, continued
environment, and encourage awareness and recreational use. The group organizes hikes and kayaking, presentations, annual cleanups for Earth Day and NC Big Sweep, and lobbies local government. Quarterly water quality testing at five sites helps reveal obvious signs of problems like excessive erosion, unnatural algae blooms, and dead aquatic life.

Water quality testing is just one way to monitor and help solve problems created by polluted runoff. As individuals we can stop putting trash, wash water, grease, lawn chemicals, and yard waste into sewers. We can clean up after our pets and report possible erosion and pollution violations.

For more information on Northeast Creek Streamwatch, visit the group's website: www.northeastcreek.org.

Michael Pollock displays a found "treasure" from an Earth Day Stream Clean-Up. In April 2008, volunteers collected over 2,600 pounds of trash along nine stream miles.

Meadowsweet Creek (Third Fork Creek tributary)
Excerpts from reports by Jonathan Nyberg, Meadowsweet Gardens Adopt-a-Stream Group

In April, 2006 a friend and I headed up Meadowsweet Creek from our house for the first time as official creek-keepers. We discovered a five-foot waterfall, many beautiful rocks and a bamboo gorge 10 feet deep. A few days later, the first volunteers walked the creek and picked out lumber, a lawn chair frame, eight partial bags of trash and a very nice, usable old leaf rake, which I'm always on the look-out for. The walking was rough, with many pools deeper than our boots, so we had to be careful. One volunteer described it as "spelunking through the wisteria caves of Meadowsweet Creek."

...Strange perfume, decaying rotten leaves smell in the creek…One inch rain last Saturday. We returned home Sunday and creek flow increased Wednesday, so I guess Daisy [my trusty creek dog] and I will investigate soon…It takes a lot of energy to monitor a creek and respond to changes on a daily basis, burn out is high. Overwhelming feeling that I can't do this all the time, it's too relentless, but I reread a passage from the watershed class I took:

> "Each subwatershed contains a network of small stream channels that are known as headwater streams. While each headwater stream is short and narrow, they collectively represent a majority of the drainage network of any watershed management unit. They dominate the landscape through their sheer number and cumulative length. They comprise roughly 75% of the total stream and river mileage in the U.S. What happens in the local landscape is directly translated to the headwater streams and on to larger watersheds and river basins. Focusing on the headwater stream level is important in watershed management for several reasons: headwater streams are exceptionally vulnerable to watershed changes, streams are on the same scale as development, streams are the narrowest door for water resource protection, streams are good indicators of watershed quality and the public intuitively understands streams and strongly supports their protection."
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> *— Do-It-Yourself Watershed Planning Kit distributed by Marc Seelinger, Raleigh, NC*

So my little creek is a headwater stream, and I think a beautiful example of a Piedmont headwater stream, with many waterfalls and rock formations. I would like to see its free flowing nature preserved.

To adopt a stream in your neighborhood, call 560-4326.

Stormwater Services Earns Lab Certification
The Stormwater Services Aquatic Organism Identification Laboratory, or Bug Lab, has received an esteemed certification by the N.C. Department of Environment and Natural Resources. Only four other labs in N.C. have completed the requirements and passed the rigorous testing for certification.

The City monitors the presence of sensitive aquatic organisms to assess water quality impacts to aquatic life. This monitoring is a cost-effective alternative to extensive and frequent chemical testing. Certification of the City's Bug Lab demonstrates the City's ability to function at a high level for its monitoring efforts.