

WATERways

Volume 14, Number 1: July 2010



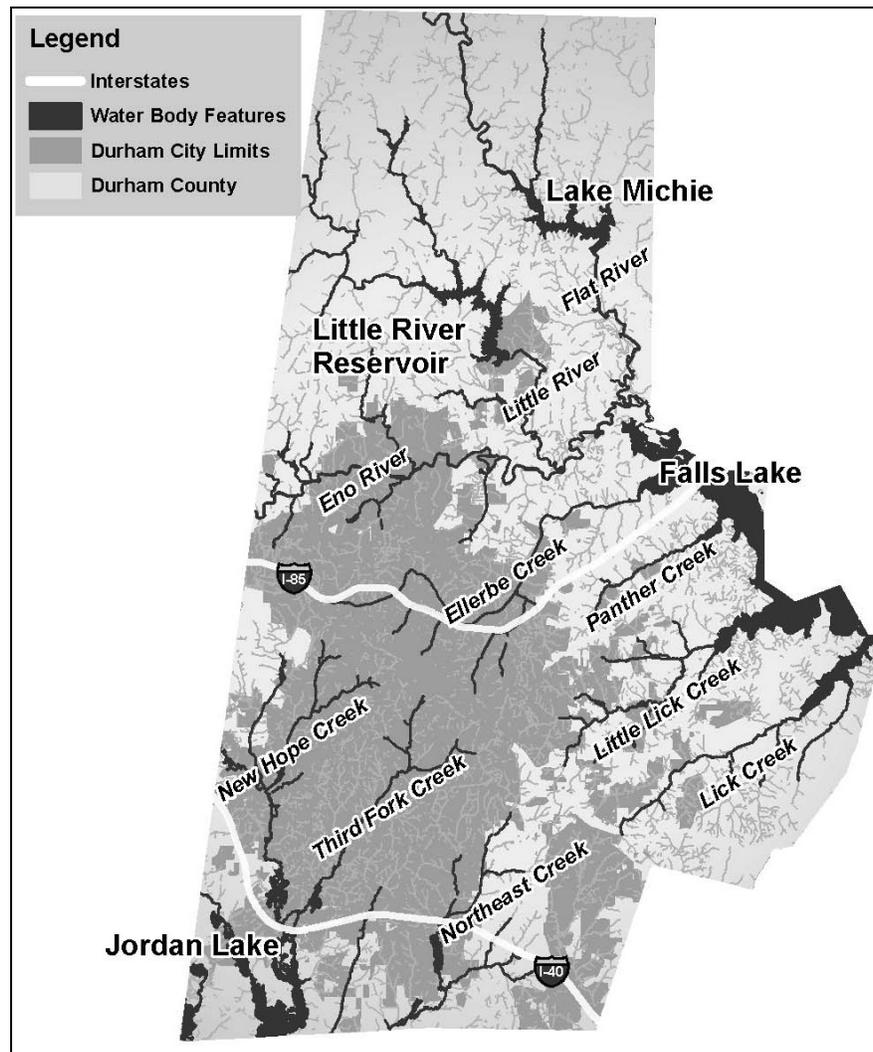
Cleaning Up Falls and Jordan Lakes

Falls Lake and Jordan Lake are reservoirs that serve as major regional drinking water sources. They were both built for flood and drought control but have become key for water supply to a growing Triangle. The same growth that increases the need for these reservoirs has brought more sources of pollution that threaten the water quality of the lakes. Because of these concerns, the North Carolina General Assembly passed Jordan Lake Rules in 2009. In addition, the state is now working to finalize Falls Lake Rules.

Both sets of rules focus on reducing nutrients going into the lakes. Nutrients like nitrogen and phosphorous feed algal growth. Too much algae results in higher costs to treat drinking water and problems for fish and wildlife. The nutrient reductions required under the new rules are big: 30% nitrogen and 5% phosphorous for Jordan Lake, 40% nitrogen and 77% phosphorous for Falls Lake.

What does this mean for Durham? Nearly all of the creeks and rivers in Durham drain to one of these lakes. The City and County of Durham and its residents are responsible for reducing pollution entering the lakes through stormwater runoff and other sources.

Initial cost estimates for the City of Durham's portion of cleanup for Falls and Jordan Lakes are over a



billion dollars. That is \$10,000 per household over twenty years.

To pay for the rules' required stormwater controls, the City anticipates increases in the stormwater utility fee. The City Council approved a 9.3% increase for this fiscal year. A rate study in

fiscal year 2011 will help advise decision makers on raising fees in the future.

The City is already acting to protect local waterways through stricter controls on new development,

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finding and stopping illegal discharges, and reducing septic system discharges. Perhaps the biggest challenge is adding stormwater controls to already built-up areas of the city. Areas developed pre-1994, before stormwater laws took effect, will be regulated under these rules.

That means the City must find places to install stormwater controls in existing residential and commercial areas. Possible new

requirements will be to reduce residential fertilizer use, add rain barrels and cisterns to capture rainwater, install rain gardens (depressed areas with plants that capture and clean runoff), replace curb and gutter with greener streetscapes, and add neighborhood-wide stormwater treatment.

Durham will continue to work with regional partners to protect our streams and lakes while providing excellent, cost-effective service to rate payers.



Above: In this example watershed improvement project, a strip of plants is used to soak in and filter stormwater. This reduces polluted runoff flowing into local creeks and lakes. *Photo courtesy of Abby Hall, US EPA*

Watershed Planning

A watershed defines a drainage area for a stream, lake, or other water body. The City is creating watershed plans for local streams to guide cleanup efforts.

The Ellerbe Creek Watershed Improvement Plan is nearly complete. It lists potential stormwater projects to help control pollution in areas of the city that drain to the creek. The plan details costs, water quality benefits, and other factors that will help decision makers implement the plan.

The Third Fork Creek Watershed Plan is underway. Staff are assessing each part of the creek for current conditions and improvement potential.

A Northeast Creek watershed plan is next. Residents are invited to learn more and get involved in these plans. Regular updates are posted on the Stormwater Services web page on the City's website.

What you can do to help

- ◆ Adopt a stream
- ◆ Join a stream clean up
- ◆ Test your soil
- ◆ Fertilize less
- ◆ Plant a rain garden
- ◆ Wash your car at the car wash
- ◆ Plant trees and bushes along creeks

For more information

State plans to clean up Falls and Jordan Lakes:

www.JordanLake.org

<http://portal.ncdenr.org/web/wq/ps/nps/fallslake>

Get involved for clean water:

www.DurhamNC.gov/stormwater

www.NCCleanWater.org

City's stormwater program and watershed plans:

www.DurhamNC.gov/stormwater



Public Works Department - Stormwater Services - 919-560-4326

www.DurhamNC.gov/stormwater

Design/Plan Review - Drainage Concerns - Floodplain Information

Stormwater Public Education - Surface Water Quality

