MEETING WATERSHED GOALS IN ELLERBE CREEK

Chris Dreps

Tools of Watershed Management Workshop

Dec. 16, 2015

Ultimate goal—Fishable, swimmable, drinkable?

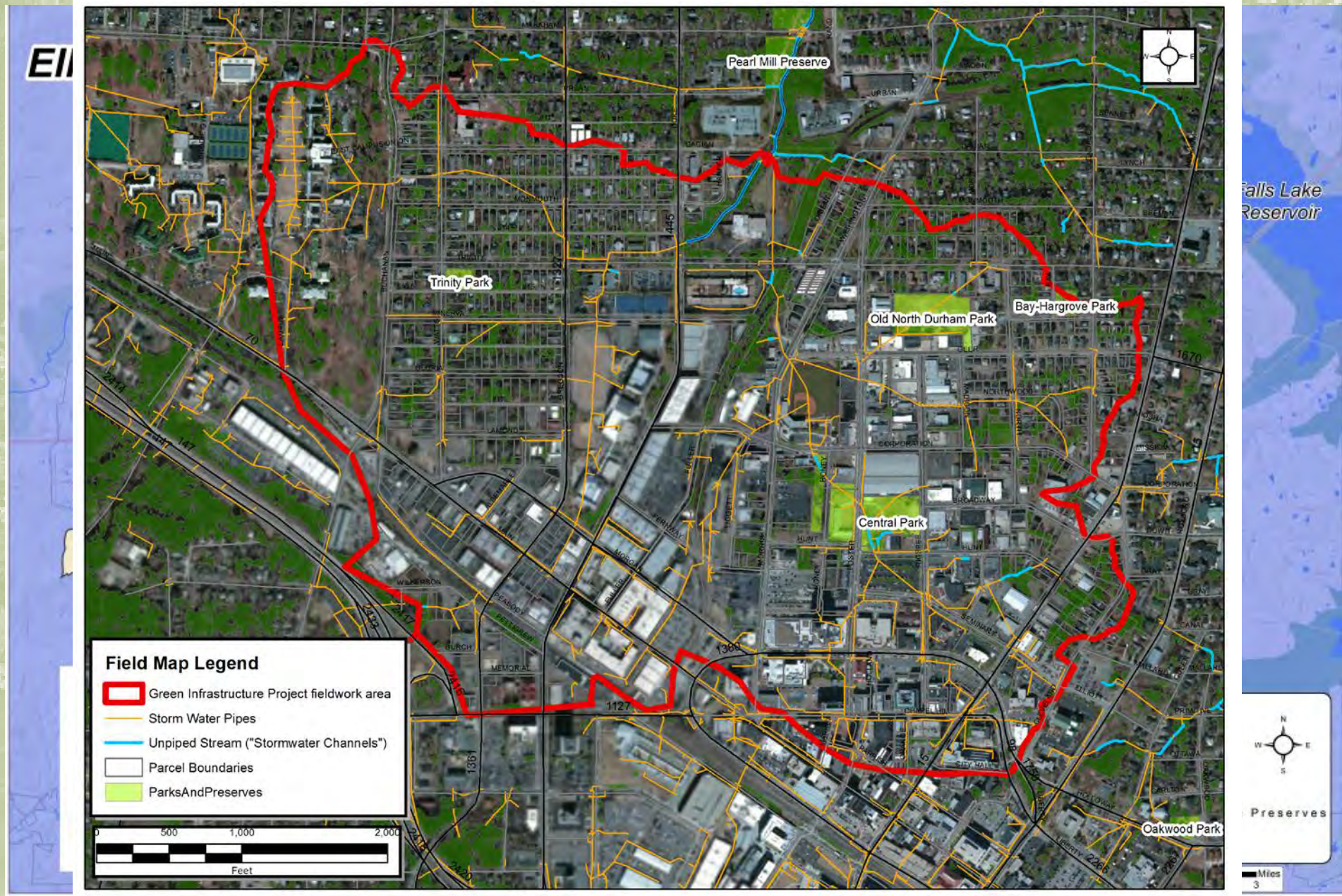
Tools of Watershed Protection

(from The Center for Watershed Protection)

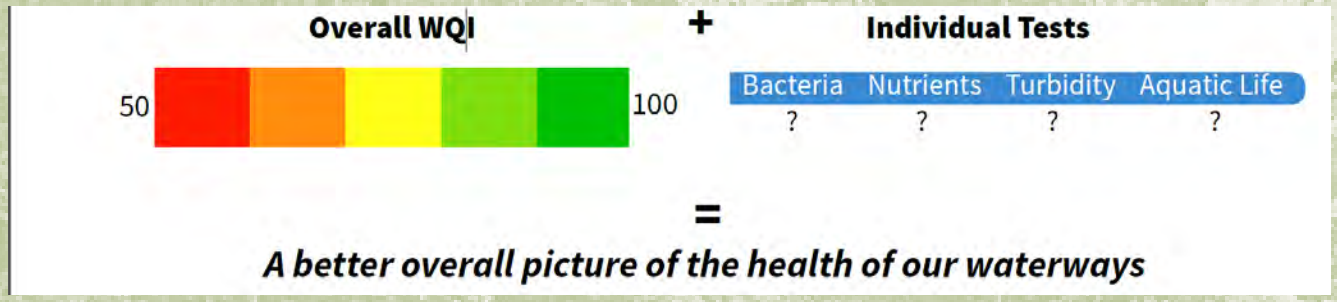
ECWA Strategic Goals

DESIRED IMPACT long-term difference	**Ellerbe Creek is a clean, healthy creek supporting people and wildlife**		
ENABLING OUTCOMES results of strategies that lead to impact	**Public policies, regulations, and investments protect the creek.**	**Community members are connected to Ellerbe Creek with opportunities to learn, play, and protect the creek.**	**Green infrastructure is in place, including protected land and stormwater management.**
STRATEGIES what ECWA does to create enabling outcomes	Motivate policymakers and other decision-makers to value the watershed and take action to restore and protect it.	Create hands-on experiences for residents and landowners to appreciate and improve the watershed.	Protect and restore land along the creek for improved watershed function and recreational use. Identify and implement innovative green infrastructure solutions that improve watershed function.
CROSS-CUTTING STRATEGIES	Work through partnerships, influence others to do the work rather than doing all the work Engage the community from a place of listening to needs and wants		

GI Example: East Branch of South Ellerbe



2013 Durham State of Our Streams Report



Ellerbe Creek WQ Indices

Goose Creek 79

Upper Ellerbe 81

South Ellerbe 72

Bacteria, Turbidity , and Aquatic Life ratings are all “poor”

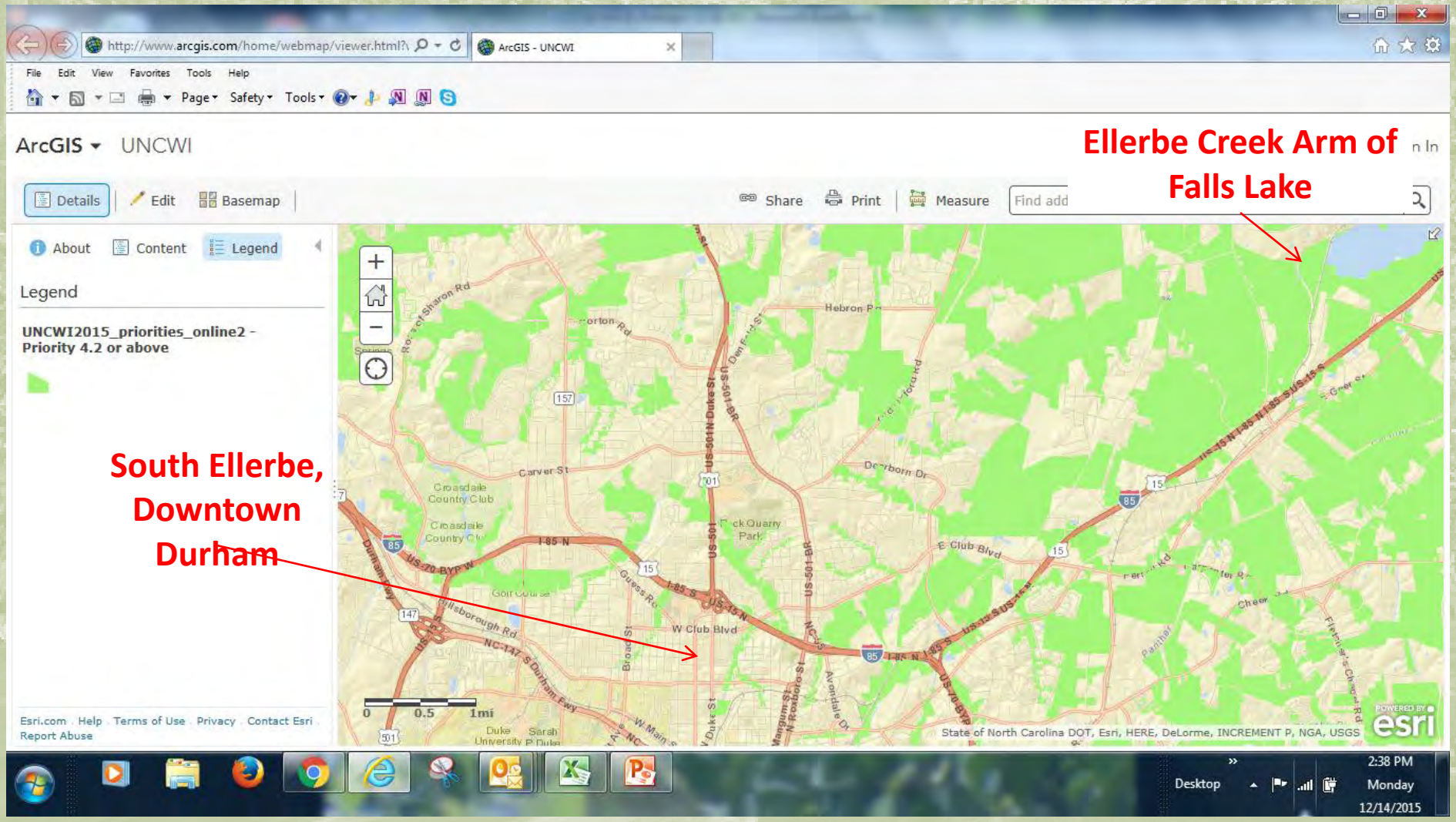
For Comparison, New Hope Creek = 84, Eno River = 91

Creek Overwhelmed

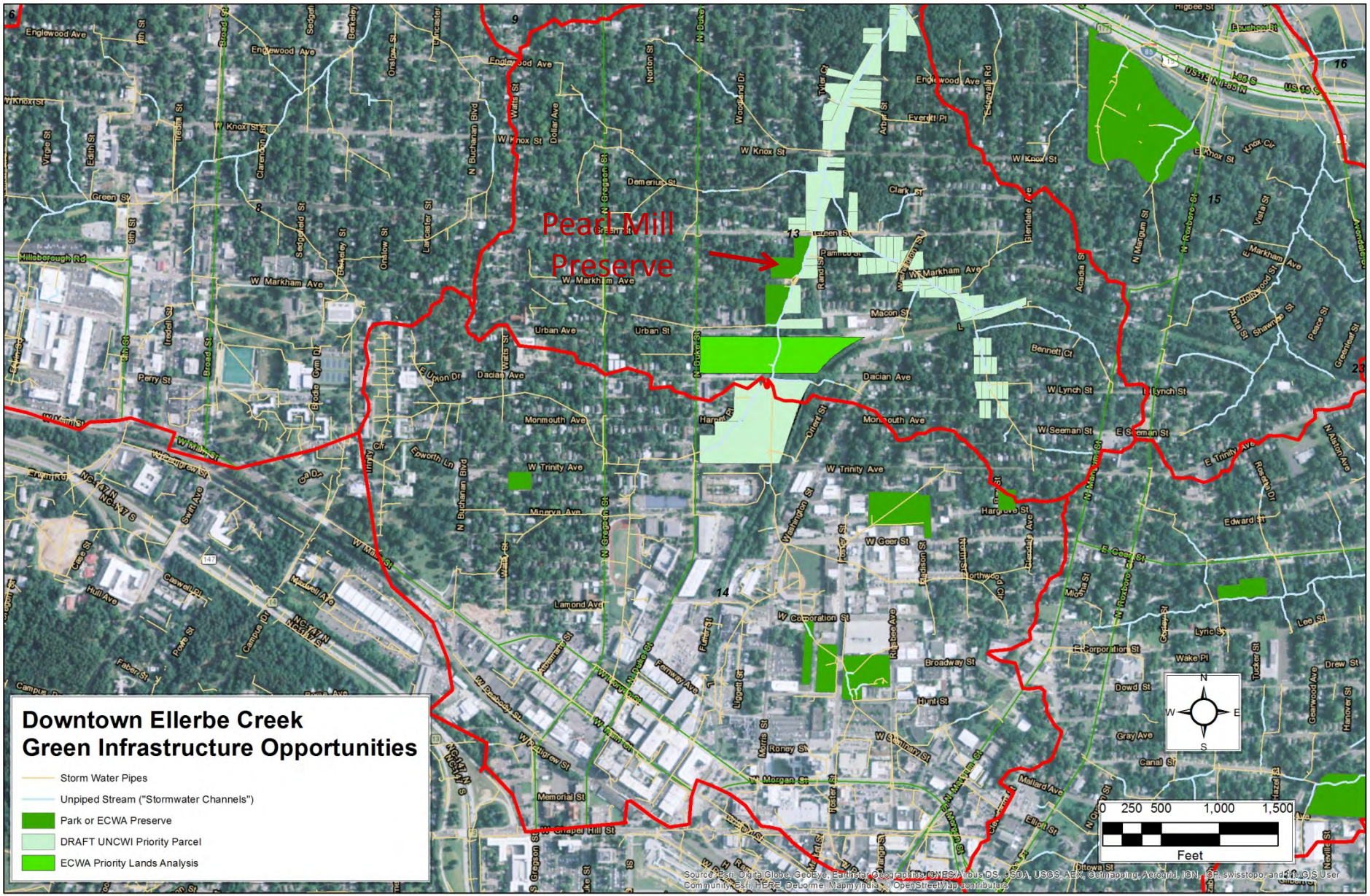
Volume Management

Water Quality Management

Strategy: Land Protection DRAFT
UNCWI priorities



S. Ellerbe Land Conservation Priorities

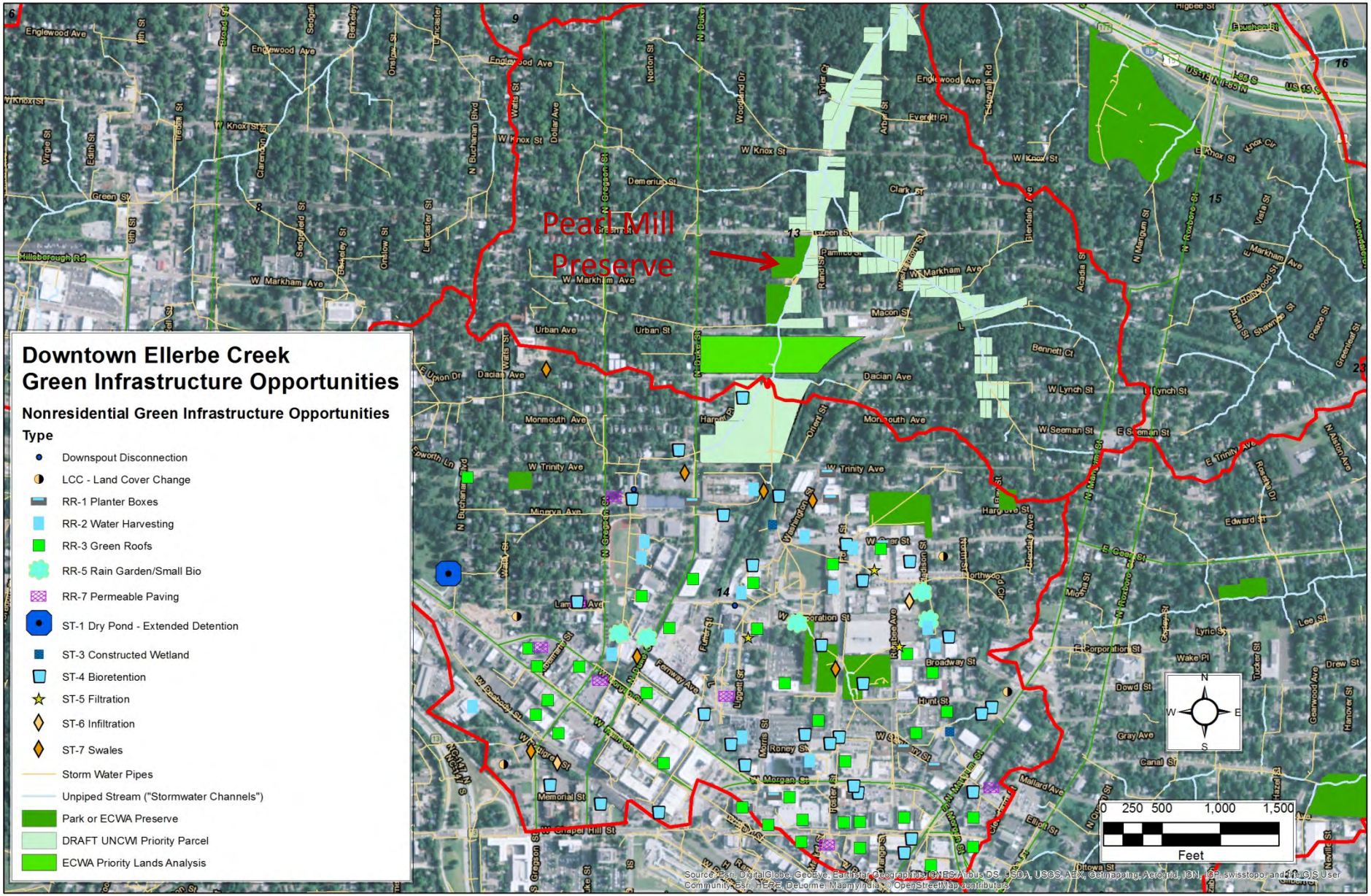


Where is the Water Quality and Volume Management?

Ellerbe Creek
Green Infrastructure Partnership

Strategy: Green Infrastructure Retrofits for Stormwater Management

S. Ellerbe Stormwater GI Opportunities



Identified Green Infrastructure Opportunities:

Green Street:

2.08 million sq ft treated

Cisterns: 246

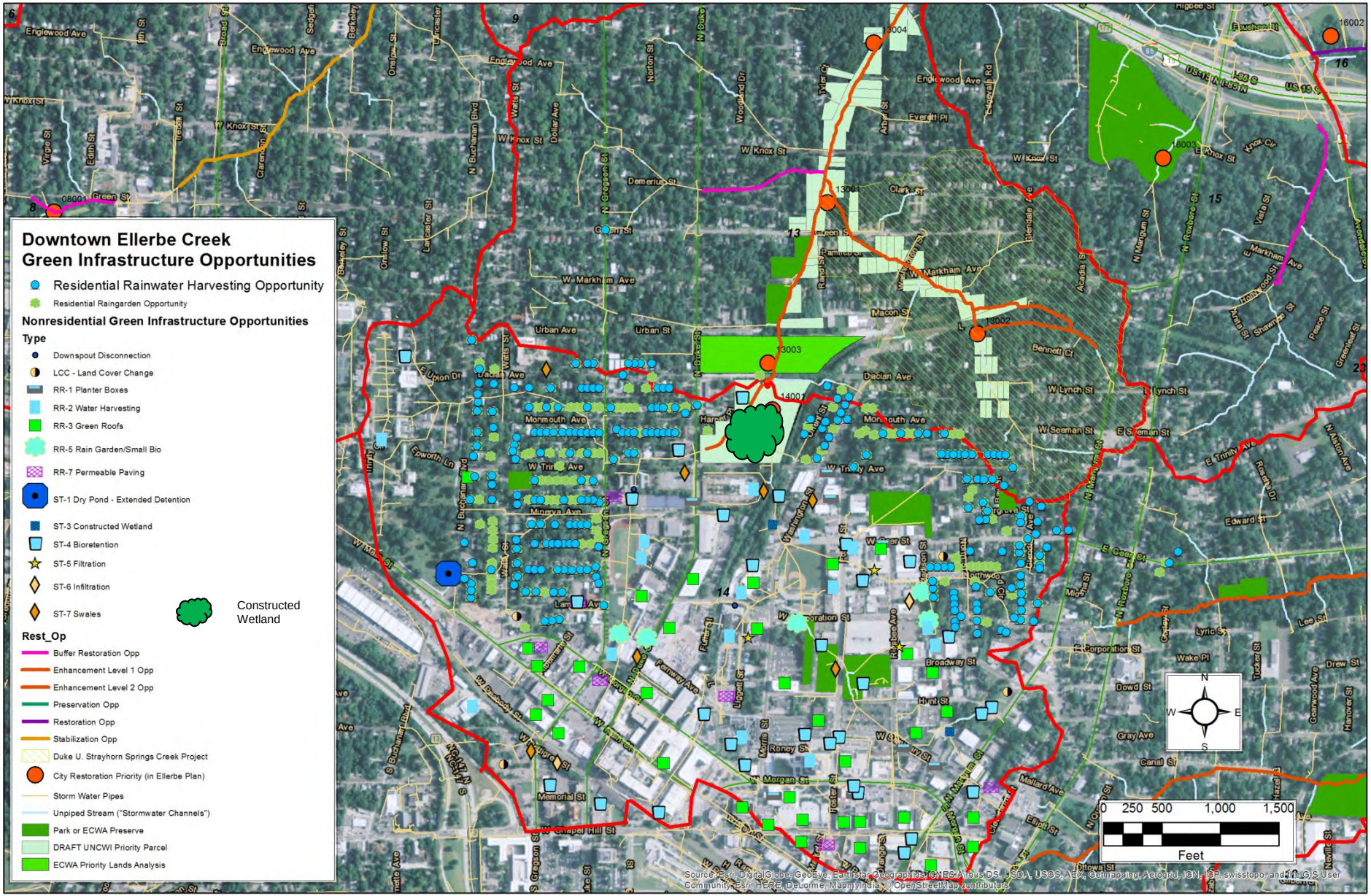
Bioretention: 279

Green roofs: 40

Permeable Pavers: 3.7 acres

Wetlands: 2

S. Ellerbe GI Vision



Strategy: Community Engagement

www.creeksmart.org

ELLERBE CREEK WATERSHED ASSOCIATION

SUPPORT EXPLORE ACT LEARN ABOUT

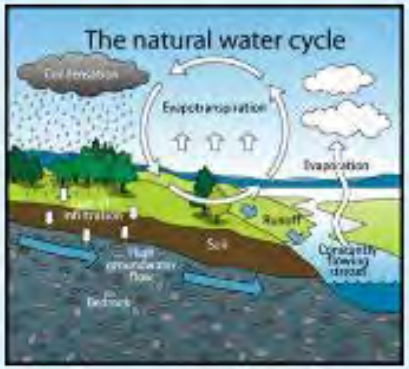
Be Creek Smart®

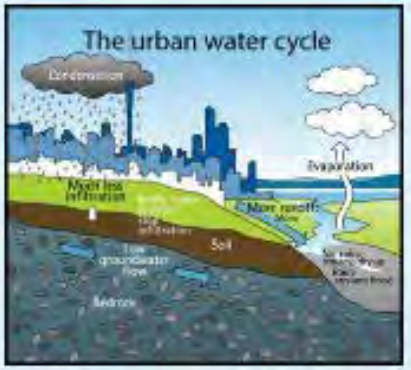
Why become Creek Smart®?

Becoming **Creek Smart®** is one way you can help to protect the water in your local stream or river. An important part of the Ellerbe Creek Watershed Association's mission is to restore the Ellerbe to a healthy, living creek. Yet the greatest threat to the Ellerbe is stormwater runoff.

Every time it rains, stormwater runs off our city streets, buildings, homes and driveways through storm drains and pipes, and into Ellerbe Creek. Like other cities, our 19th and 20th century stormwater system was designed to get the water off properties and into the creek as quickly as possible, with no consideration for water quality protection. We treat water, our most valuable natural resource, as waste! The result is that even small amounts of rain create unnaturally high stream flows that erode creek banks and pollute the water with toxic chemicals, excessive nutrients, and trash.

The good news is that we can help restore a more natural, cleaner Ellerbe Creek by being Creek Smart®.





Water Cycles
Images from: Auckland City Council, 2010

What is Creek Smart®?

The stormwater problem isn't natural! In

The City of Durham provides funding for ECWA to install a limited number of rain gardens and cisterns each year. If you

Residential Creek Smart® Practices

Strategy: Better Site Design

- Advocacy
- Durham Code and Ordinance friendliness to LID/ Green Infrastructure?

Summary of Ellerbe Creek Strategies:

Land Protection in key areas

Green Infrastructure / LID Stormwater Approach

Restoration/Repair in key areas such as floodplains

Engage the community through Creek Smart and other hands-on opportunities

Motivate decision-makers to value the watershed and take action to restore and protect it

Mode of operation: PARTNERSHIPS with local government, business community, neighborhoods, foundations, etc.

Re-write of City's Ellerbe Creek Watershed Management Plan