



Ellerbe Creek Watershed Improvement Project

Briefing Agenda

Public Works Department

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- Project goals
- Project status
- Schedule
- Next steps
- What you need to know





Ellerbe Creek Watershed Improvement Project Goals

Restore and protect the watershed functions of Ellerbe Creek

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- Assess current stream and watershed conditions
- Identify and prioritize restoration projects
- Improve or prevent further deterioration of water quality conditions
- Public Involvement



Ellerbe Creek Watershed Improvement Project Critical Success Factors

- Provide an unbiased, independent assessment of the means and cost of making improving water quality in the Ellerbe Creek Watershed
- Stakeholder Participation
- Use this project as a model for future City watershed improvement studies.

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Ellerbe Creek Watershed Improvement Project Key Personnel

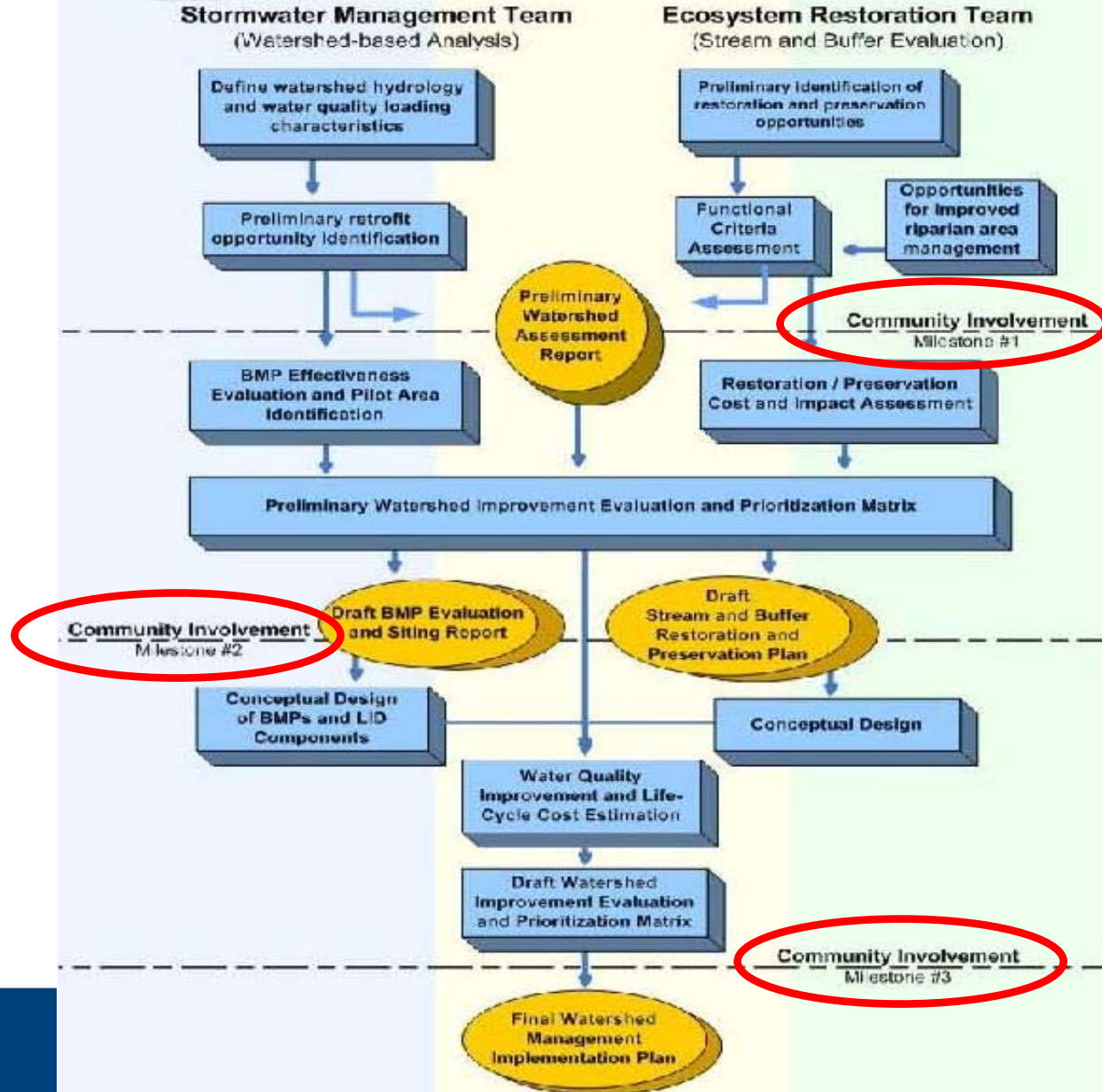
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- Sandi Wilbur – City Project Manager
- Marshall Taylor – Consultant Team Project Manager
- Mike Fowler – Consultant Assistant Project Manager

Ellerbe Creek Watershed Management Implementation Plan Work Process



- Parallel teams for Stormwater Management and Ecosystem Restoration
- Multiple review and community involvement points



Ellerbe Creek Watershed Improvement Project Status

Field work under way

- Evaluation of 90+ new and existing stormwater BMP sites to determine if they can be modified to improve water quality
- Completed evaluation of existing data for the Ellerbe Creek watershed – for example: previous studies, utilities, land use, soils, floodplain etc.

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Ellerbe Creek Watershed Improvement Project Next Steps

- Complete the stream inventory and assessment by mid-February (starts next week)
- Identify potential projects to improve water quality and restore the functions of Ellerbe Creek
- Determination of criteria to be used in the GIS-based water quality evaluation tools

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Ellerbe Creek Watershed Improvement Project Schedule

Data Collection and Field Inventories:

- December 2007 through March 2008

Development of GIS-based Water Quality Evaluation Tool and Watershed Characterization:

- April through July 2008



Pilot Study Area Evaluation and Development of Watershed Alternatives:

- August through November 2008

Prepare Watershed Implementation Plan

- December 2008 through April 2009

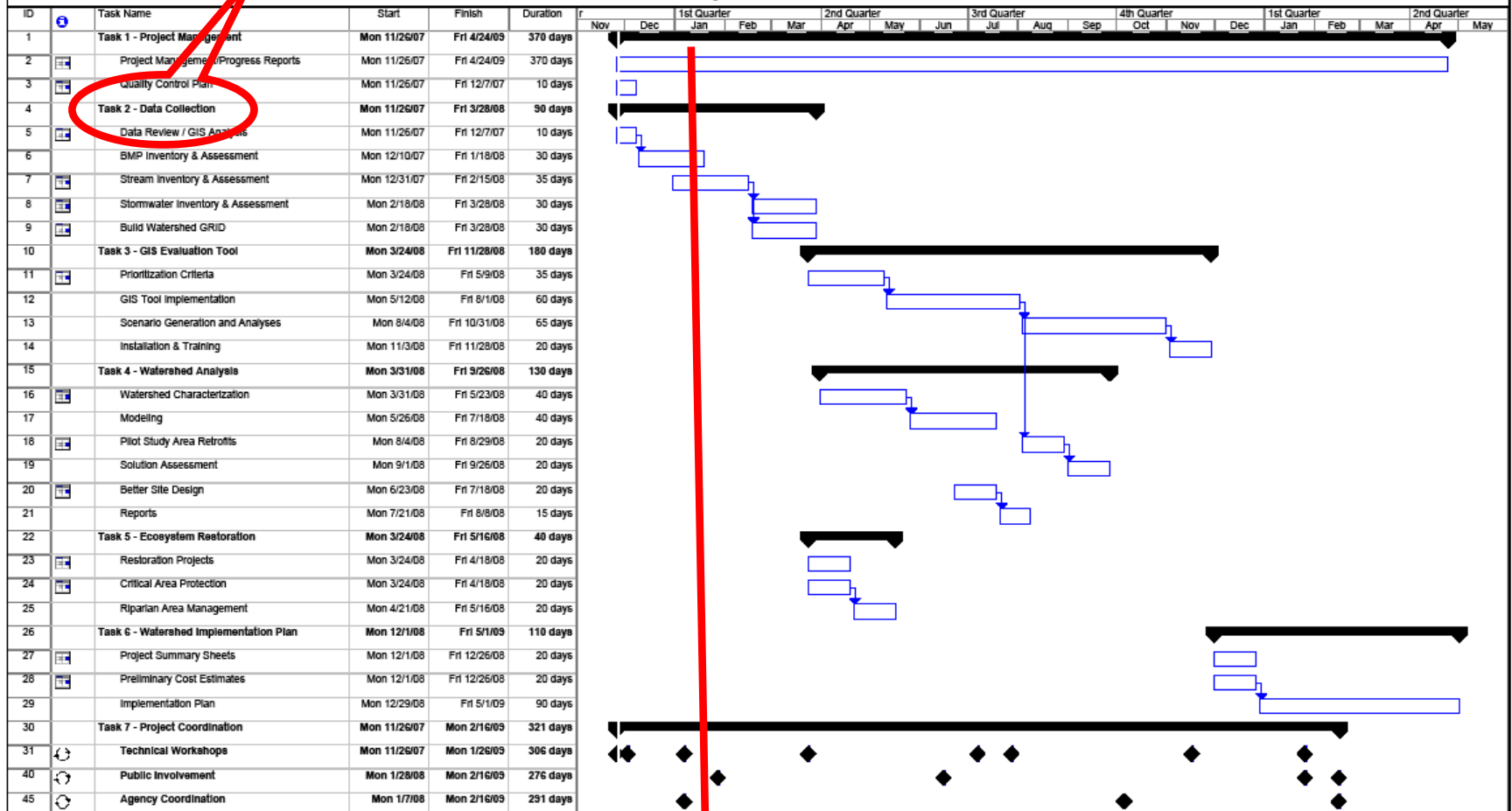
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Task 2 Data Collection

Ellerbe Creek Watershed Management Implementation Plan Project Schedule



Project: Ellerbe Creek Schedule 11-26
Date: Tue 11/27/07

Task Split: [Blue bar] Progress [Black bar] Milestone [Diamond]

Summary: [Thick black bar] Project Summary [Thin black bar]

External Tasks: [Grey bar] External Milestone [Diamond]

Deadline: [Green arrow]

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What do you need to know?

Understand the effect of the Implementation Plan

- There are 3 public meetings scheduled in March 2008, June 2008 and January 2009 that will be held at critical stages to discuss the following:
 - Riparian and stream restoration projects
 - Critical riparian areas/stream reaches for protection
 - Revised riparian corridor vegetation management plan for publically maintained areas
 - New or modified stormwater BMPs

Stay informed

- You will be provided regular, brief updates via email or briefing
- Sandi Wilbur is your primary point of contact at 560-4326
- Website for project at www.durhamnc.gov/stormwater

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Back-up Info / Details

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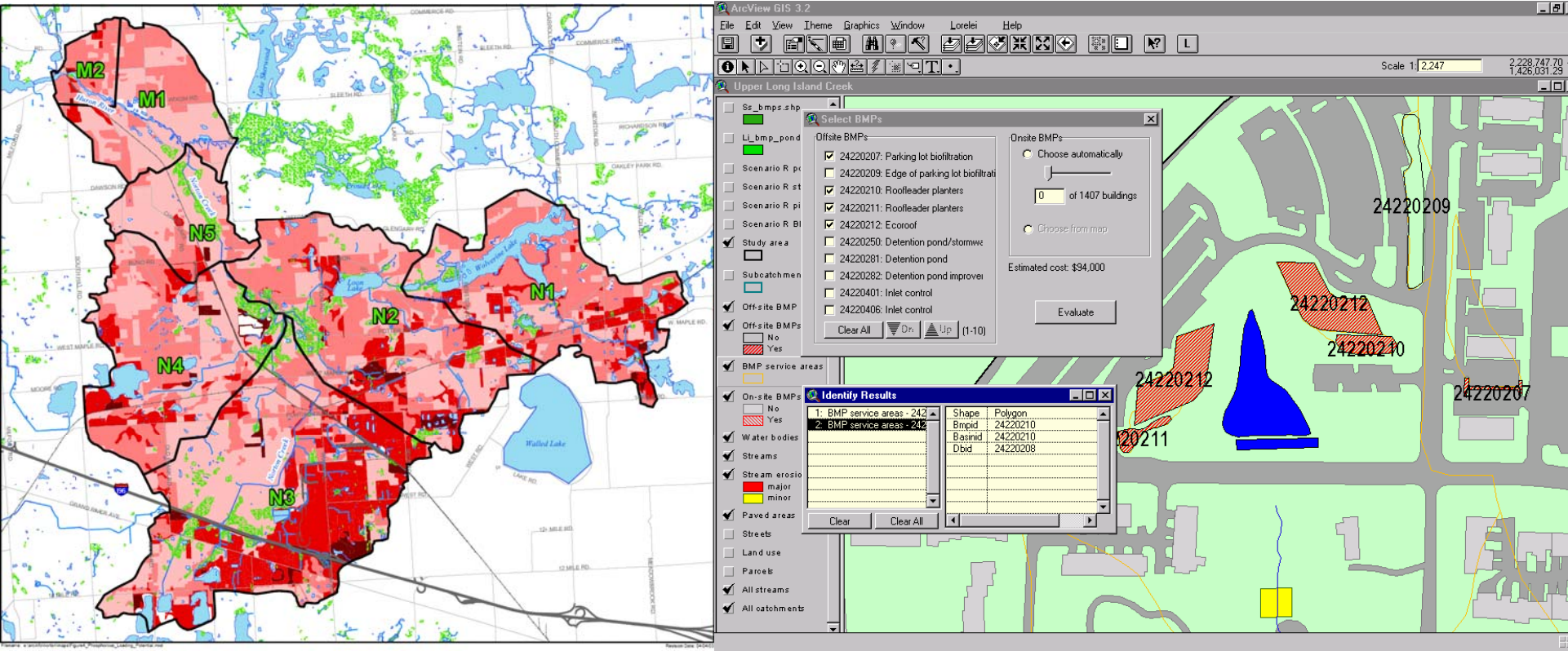


Ellerbe Creek Watershed Improvement Project

GIS-Based Water Quality Evaluation Tool

- Prioritization Criteria
- Evaluation Tool Development
- Analyses and Scenario Evaluation
- Training and Installation

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Watershed Analysis

Watershed Characterization (Task 4.1):

- Develop parameters for pilot study areas and watershed-scale models

H&H and Water Quality Modeling (Task 4.2):

- Develop detailed models for pilot study areas
- Develop watershed-scale models

Pilot Study Area Retrofits (Task 4.3):

- Use the models and GIS-based water quality tool to evaluate each of the 5 pilot study areas:
 - Benefits of BMP water quality retrofits
 - Locations and types of new BMPs
 - Evaluation of multiple benefits, such as flood control
 - Preliminary sizing
 - Cost estimates, including \$/lb of pollutant removed

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Watershed Analysis

Identify Watershed Alternatives (Task 4.4):

- Apply the results from the pilot study areas to the watershed
- Develop 3 watershed-scale alternatives
- Develop list of projects, their benefits and costs, and priorities based on evaluation matrix

Better Site Design (Task 4.5):

- Identify LID practices that are feasible within the City
- Use 1 pilot study area to assess their effectiveness
- Review and compare development ordinances from 3 municipalities related to LID practices
- Develop an implementation guide to promote LID within the City

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Ecosystem Restoration

Based on field data collected during Stream Assessment:

- Identify riparian and stream restoration projects (Task 5.1)
- Identify critical riparian areas/stream reaches for protection (Task 5.2)
- Develop riparian corridor vegetation management plan for publically maintained areas (Task 5.3)

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Watershed Management Implementation Plan

Compile Watershed Management Implementation Plan and data sufficient for the City's CIP

- Project fact sheets for recommended projects (Task 6.1)
- Preliminary costs (Task 6.2)
- Implementation Plan (Task 6.3)

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