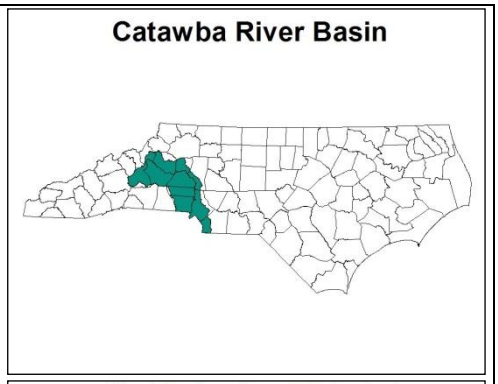
CHARLOTTE LOCAL WATERSHED PLAN

FACT SHEET

Location:	Charlotte Area
River Basin:	Catawba
Cataloging Unit (CU):	03050103 and 03050101
14-digit Hydrologic Units:	03050101170010, 03050101170020, 03050103020020, 03050103020030, 03050103020050, 03050103020040
County:	Mecklenburg
Watershed Area:	176, 581 acres (275 mi^2)
Planning Contact:	Hal Bryson – Ecosystem Enhancement Program (828) 450-9408 hal.bryson@ncdenr.gov
Participants:	Charlotte Storm Water Services (CSWS), Charlotte-Mecklenburg Utilities (CMU), Mecklenburg County Water Quality (MCWQ), Mecklenburg County Storm Water Engineering (MCSWE)
Contractor Hired for Watershed Assessment	CH2MHill (Phases I – III) Tetra Tech, Inc. (Phase IV)



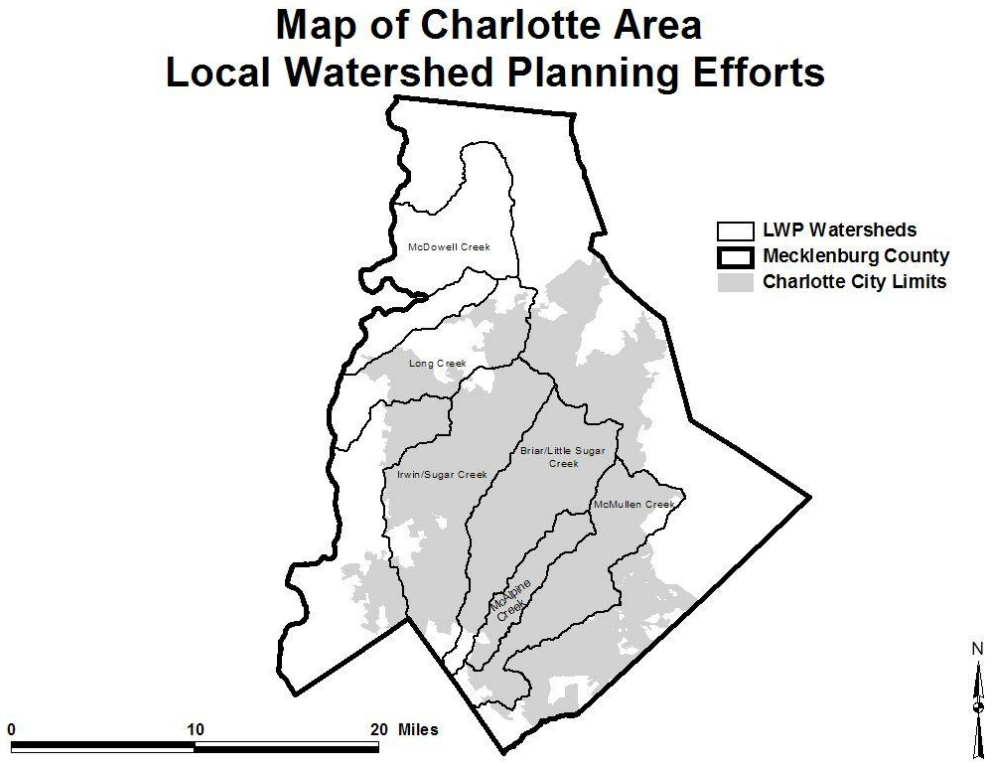
Project Overview

The Charlotte Area Local Watershed plan assessed the condition of Charlotte area watersheds by breaking down the larger hydrologic units into 306 separate small catchments of 1 mi^2 or less. Within these catchments various parameters such as water quality data, estimated pollutant loading rates, land cover, and land use were evaluated, and the catchments were ranked according to the level of degradation observed. Six target catchments were selected to further analyze opportunities for watershed enhancement: two highly degraded catchments for restoration; two impacted, rapidly developing catchments for enhancement; and two healthy catchments for preservation activities. The target catchments ("focus areas") were: Long Creek at I-77; Long Creek – Lawing School Road; Long Creek – Belmeade Drive; Stewart Creek (in the Sugar Creek HU); Edwards Branch (in the Little Sugar Creek HU); and McAlpine Creek Greenway.

Within the six focus areas, individual opportunities for restoration, enhancement, and preservation were explored. Proposed projects included traditional stream restoration projects as well as stormwater best management practices (BMP's). The projects were ranked according to their feasibility, cost, and pollutant reduction benefit. The final plan provided maps and descriptions of all the proposed projects as well as models of various pollution reduction strategies in order to estimate long-term watershed trends.

Project Schedule

The project began in early 2002 and final Plan documents were completed by CH2MHill in August 2003. EEP contracted with Tetra Tech, Inc. in 2005 to continue the LWP effort by providing additional project feasibility analysis and by developing a flexible mitigation protocol for equating stormwater BMP's with wetland mitigation credit. It was hoped that this Phase IV work within the Stewart Creek and Edwards Branch catchments would serve as a prototype for mitigation of watershed functions in highly urbanized settings. For more information on the proposed "wetland functional replacement protocol", contact EEP Planner Hal Bryson at 828-450-9408 or EEP Planner Anjie Ackerman at 919-707-8312.



Planning Documents

Charlotte Local Watershed Plan

Technical Memorandum 1: Task 1 - Scoping of Watershed Assessment and Project Needs: Goals and Objectives, Data Collection, Subwatershed Delineation, Historical Context Review, and Indicators Establishment

Technical Memorandum 2: Task 2 - Catchment Characterization and Project Site Selection

Technical Memorandum 3a: Task 3 - Modeling Approach and Development Program

Technical Memorandum 3b: Task 3–Development of the Long Creek Watershed Model and Modeling Results for Existing Conditions

Technical Memorandum 4: Task 4–Targeting of Management

Summary of Findings & Recommendations for the Charlotte Area LWP

1652 Mail Service Center, Raleigh, NC 27699-27699-1652 / 919-707-8976 / http://portal.ncdenr.org/web/eep