

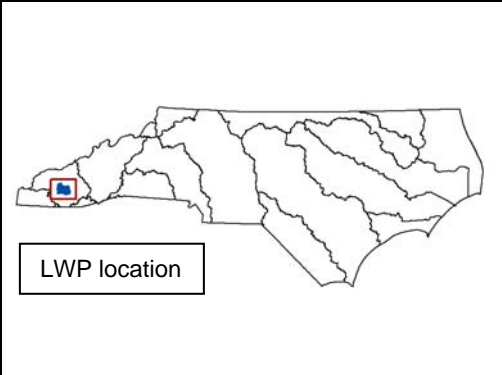

# N.C. Ecosystem Enhancement Program



*Restoring... Enhancing... Protecting Our State*

## FRANKLIN TO FONTANA LOCAL WATERSHED PLAN

### Fact Sheet

<b>Location:</b> <b>River Basin:</b> <b>Cataloging Unit:</b> <b>14-digit Hydrologic Units:</b> <b>Counties:</b>	Near Franklin, NC Little Tennessee 06010202 06010202040010, 06010202040020, 06010202040030, 06010202040040, 06010202060010 Macon, Swain
<b>Watershed Area</b>	154 square miles
<b>Planning Contact:</b>	Andrea Leslie - Ecosystem Enhancement Program (828) 337-3455 or <a href="mailto:Andrea.Leslie@ncdenr.gov">Andrea.Leslie@ncdenr.gov</a>
<b>Participants:</b>	Advisory Committee made up of Local Citizens, Little Tennessee Watershed Association, Land Trust for the Little Tennessee, Macon County, Natural Heritage Program, more.....
<b>Contractor Hired for Watershed Assessment:</b>	Equinox Environmental Consultation and Design, Inc. Contact: Jim Borawa at (828) 253-6856 or <a href="mailto:jborawa@equinoxenvironmental.com">jborawa@equinoxenvironmental.com</a>
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>LWP location</p> </div> <div style="text-align: center;">  </div> </div>	

### Project Overview

The Franklin to Fontana watershed is a 154 mi<sup>2</sup> area near Franklin that encompasses the Little Tennessee River watershed between Lake Emory and Lake Fontana. This area is of great ecological and cultural significance, and it includes a 23-mile free-flowing stretch of the Little Tennessee River that hosts a highly diverse aquatic community, including a number of rare, threatened, and endangered fish and mussels. The area includes Cowee, Burningtown, Iotla, Watauga, Brush, and Tellico Creeks. This primarily rural watershed is a mix of pasture, forest, and residential land, but there is notable development pressure on existing agricultural and forested land.

This project built on water quality monitoring work performed by the Little Tennessee Watershed Association (LTWA), Tennessee Valley Authority, and the Division of Water Quality (DWQ); key monitoring objectives for the Little Tennessee River and its tributaries in the Franklin to Fontana watershed were set by an advisory committee composed of local citizens and local, state, and federal natural resource and planning professionals. Assessment objectives were implemented by a collaborative team of agencies and organizations, including the LTWA, US Geological Survey, Western Carolina University, Wildlife Resources Commission, and DWQ.



## **Project Schedule**

The project stretched between 2008 and 2011. An initial characterization of the watershed (Preliminary Findings and Recommendations Report) was completed in 2009. Intensive watershed monitoring and analysis took place between 2008 and 2010, and a Watershed Assessment Report summarizing this work was completed in 2010. The Watershed Management Plan and Project Atlas were finalized in 2011. An Implementation Committee is prioritizing and carrying out key recommendations of the plan.

## **Findings and Recommendations**

An assessment of ecological conditions revealed that a large portion of the watershed is highly functioning, including much of the Cowee subwatershed and the Burningtown, Tellico, Brush, Sawmill, and Needmore subwatersheds. The most highly impacted subwatersheds are those of Iotla Creek, Watauga Creek, Cat and Rabbit Creeks, and the Franklin area, including Crawford Branch. Benthic macroinvertebrate communities were severely impacted by toxic impacts associated with a large tomato farm along Cat and Rabbit Creeks. Aquatic habitat is severely impacted in the Cat and Rabbit Creek and Iotla Creek subwatersheds; poor habitat was correlated with a lack of woody riparian buffers, extensive stream channelization, agricultural activity, and unpaved roads. Crawford Branch fish and benthic macroinvertebrate communities are highly degraded, impacted by urban stormwater and water quality problems and poor habitat. Tellico Creek biota are impacted by waste inputs from a trout farm in its upper reaches. Fecal coliform bacteria and nutrient levels were high in numerous subwatersheds; high fecal bacteria levels were often associated with livestock access to streams in rural subwatersheds, and those in urban Crawford Branch are still under investigation. Assessment of mussel populations in the Little Tennessee River demonstrated continued decline in the federally endangered Appalachian elktoe and other mussel species populations.

Primary stressors identified that limit stream integrity are lack of woody riparian vegetation, channel modification, excess sediment and nutrient inputs, fecal bacterial contamination, stormwater runoff, tomato pesticides, and barriers to fish passage. Management strategies to address stressors fall into four categories—conservation projects (e.g., stream restoration, farmland and wildland preservation, agricultural and stormwater best management practices, sediment retention improvement in Lake Emory), policy and institutional measures (e.g., steep slope and stormwater ordinance, tomato pesticide management education), educational activities (e.g., riparian buffer awareness program), and research and assessment activities. Other management strategies have been developed to protect natural and cultural assets of the watershed, including protecting lands within the Nantahala-Cowee Corridor and educating citizens on the value and use of tax incentives for conservation activities.

## **FRANKLIN TO FONTANA LOCAL WATERSHED PLANNING DOCUMENTS:**

### **Preliminary Findings and Recommendations Report**

(Report can be accessed as one 15 mb document or as three 5-6 mb sections)

[Entire report](#) (15 mb)

### **Watershed Assessment Report**

(Report is large, so the executive summary and table of contents are provided for reference)

[Executive Summary and Table of Contents](#)

[Entire Report](#) (45 mb)

[Appendices](#) (4 mb)

Supporting document: [DWQ Integrated Analysis Report](#) (6 mb)

[Watershed Management Plan](#) (7 mb)

[Project Atlas](#) (27 mb)

[Findings and Recommendations Summary](#)