

## **SECTION 2**

### **INTRODUCTION**

In 1999, the North Carolina Clean Water Management Trust Fund (CWMTF) awarded a \$2,100,000 grant to the Hiwassee River Watershed Coalition (HRWC) for restoration work in the North Carolina portion of the Brasstown Creek watershed. The HRWC used these funds to establish partnerships with local landowners and restore more than five miles (27,042 linear feet) of stream in the watershed. In addition, more than 50 acres of wooded riparian buffer were created and protected, and 160 acres of critically eroding bare areas were re-vegetated. Work under this grant was completed in December 2003.

In 2004, the HRWC received an additional \$431,470 from the CWMTF for work on three more reaches of Little Brasstown Creek, a major tributary near the mouth of Brasstown Creek. Under this grant, the HRWC restored an additional 3,942 linear feet of stream and paid for restoration design along another 3,500 linear feet.

Under a third grant from the CWMTF, the HRWC was awarded funding to establish a monitoring program and evaluate selected restoration projects in the Brasstown Creek watershed. The HRWC contracted with Buck Engineering to create a monitoring plan for the watershed and the North Carolina State University (NCSU) Department of Biological & Agricultural Engineering to evaluate the selected reaches over a 2-year period. A 1-year time extension was approved in 2006 and monitoring was conducted by NCSU for a third year.

Of the 14 completed restoration projects, the following 10 were chosen for inclusion in the monitoring program: Warne, Bell, Hyatt, Oland, Mason/Stalcup, Sheppard, Carringer/Mitchell, Campbell, Long Branch, and Greasy Creek (Figure 2). With the exception of Oland, each site was monitored in three consecutive years (2005, 2006, and 2007); Oland was monitored for two years (2006 and 2007). The monitored projects represent a wide range of channel types, drainage areas, restoration approaches, and land use conditions. Additionally, the 10 sites range from recently constructed to seven years old, and represent the work of several different designers and contractors. Each project was monitored with regard to four major parameters: channel stability, riparian vegetation, macroinvertebrate populations, and suspended sediment.

Annual reports were produced by NCSU following each year of monitoring; each provides an extensive presentation and discussion of data collected in the respective year. This document provides an overall summary of the monitoring that was conducted over the 3-year period as well as an outline for future work in the Brasstown Creek watershed. An overall analysis of the monitoring effort is presented in Section 3 by major parameter and includes comparisons between sites and general trends for the 3-year period. A site-by-site discussion of the results can be found in Section 4. Section 4 also includes recommendations for future project repair and/or enhancement at each site. Together the annual reports and this summary document provide a baseline for continued assessment of the Brasstown Creek watershed.

Figure 2. Map of HRWC restoration sites within the North Carolina portion of the Brasstown Creek watershed.

