

## **Section 5**

### **Focus Areas**

This section outlines the sub-watersheds recommended as focus areas for targeting management activities. Recommended priority areas for addressing existing degradation are:

- The Middle Martins Creek (MMC), Lower Slow Creek (LSL) and Messer Branch (MBR) sub-watersheds, which should be considered primary focus areas for implementation of a broad range of remedial practices;
- The sub-watershed draining Mission Quarry (MQT), which is experiencing severe impacts from the quarry operation; and
- McComb Branch, which is subject to a variety of water quality and stormwater impacts.

Recommended priority areas for preservation include:

- The upper Peachtree drainage including the following sub-watersheds - Upper Peachtree (UPT), Moore Branch (MOB), Pipes Branch (PBR) and the portion of Middle Peachtree (MPT) upstream of Mission Road; and
- The Upper Martins Creek sub-watershed (UMC).

## **5.1 Approach**

It is necessary to focus watershed management activities for remediation and protection to proceed efficiently and effectively. Firstly, it is not possible to do everything at once. With a broad range of problems and problem areas, as well as actions to be initiated, it is necessary to identify where to begin. Secondly, obtaining measurable improvements in water quality, habitat or hydrologic condition will be more likely if efforts are concentrated in clearly identified portions of the planning area, rather than spreading available resources more widely. To this end, specific focus areas were identified for watershed improvement efforts and for protection activities.

## **5.2 Focus Areas for Watershed Improvement Efforts**

The process of selecting areas to focus watershed improvement efforts emphasized those areas with notable degradation. These include the eight sub-watersheds with Low or Very Low function, as shown in Figure 2.3. The search for focus areas considered two goals.

- Targeting restoration to address problems which are common in the planning area; and
- Assuring that areas with unique needs were addressed.

### **5.2.1 Addressing Common Watershed Problems**

Degradation in much of the planning area is primarily the cumulative result of multiple stressors that are common in the region (the removal of riparian vegetation, channel modification, sedimentation, nutrient and fecal coliform bacteria inputs as well as new development). In the long term, these issues should be addressed throughout the planning area. However, two areas stand out for both the scope of potential problems and the possibility of solutions—Middle

Martins Creek (MMC) and the Lower Slow Creek (LSL) / Messer Branch (MBR) area. Both are large areas of low function, with a mix of physical stressor and water quality problems (Table 5.1). Both have a number of potential NCEEP restoration projects (see Section 6.1), and are areas visible to the local community.

**This plan recommends the Middle Martins Creek sub-watershed and the lower Slow Creek drainage (Lower Slow Creek and Messer Branch sub-watersheds) as primary focus areas for the implementation of watershed improvement activities (Figure 5.1). Areas upstream of these sub-watersheds can have a significant impact on water quality and other functional areas and should be considered secondary focus areas. The secondary focus areas include the following sub-watersheds: Upper Martins Creek (UMC), Slow Creek Headwaters (SHW) and Middle Slow Creek (SMD).**

Remedial activity should be concentrated in these sub-watersheds, including actions intended to address the full range of problems present. It is recommended that all parties working to improve degraded conditions in the Peachtree-Martins Creek area – including NCEEP, HRWC, the Cherokee Soil and Water Conservation District and Cherokee County - focus primary attention on these areas.

Table 5.1 Features of Middle Martins Creek and Lower Slow Creek Focus Areas

Feature	Middle Martins Creek	Lower Slow Creek – Messer Branch
<b>Need for Riparian Revegetation and Channel Restoration</b>	High	High
% of streams channelized	37% (rank = 1)*	32% and 20%(rank = 2 and 4)*
% of all channelized streams in planning area	27%	20%
% of riparian areas inadequate	52% (rank = 3)*	54% and 58% (rank = 2 and 1)*
<b>NCEEP Stream Project Opportunity</b>	20,000 linear feet	17,000 linear feet
<b>Notable Water Quality Concerns</b>	Yes	Yes
Nitrate	Highest baseflow concentration (rank = 1)*	2nd highest baseflow concentration (rank =2)*
Fecal coliform bacteria	2nd highest concentration (rank = 2)*	Highest concentration (rank = 1)*
<b>Villosa present</b>	Yes	No survey
<b>Livestock access and operations</b>	High	High (also high upstream)

\* For stream channel and riparian condition, rank indicates position among the nineteen sub-watersheds. For water quality parameters, rank indicates position among the sites sampled. See Equinox (2007) for additional information.

## 5.2.2 Unique Areas

It is clear from the Phase 2 report that there are two sub-watersheds experiencing significant degradation due to problems that are unique in the planning area. These are the sub-watershed draining Mission Quarry (MQT), and the McComb Branch (MCB) sub-watershed (Figure 5.1). Each of these is recommended as a focus area for specific activities, as outlined below.

### **Mission Quarry drainage (MQT)**

The tributary draining Mission Quarry is unique in the study area in the severity of the impacts it experiences and in the fact that these impacts appear to be due largely to a single facility, the Mission Quarry operation. Addressing these impacts will depend on remedial actions taken by the quarry, with the oversight of state regulatory agencies. This sub-watershed is a recommended focus area, indicating that addressing these issues should be a high priority. Specific recommendations are discussed in Section 6.4.

### **McComb Branch (MCB)**

This sub-watershed has the most extensive impervious cover in the planning area and the most extensive commercial development. It is unique in the extent of stormwater-related degradation and the potential for toxic impacts. Specific actions to address these issues are discussed in Section 6.3.

## 5.3 Focus Areas for Preservation Activities

Within the context of this LWP, preservation refers to efforts to retain existing ecological function through the protection of forested areas, both upland areas and broad wooded riparian areas along water bodies. Preservation is most commonly accomplished through the use of conservation easements, though properties may sometimes be purchased. Sustainable management of forest lands is also important.

The identification and prioritization of specific tracts for potential preservation is discussed in Section 7. The focus here is on the identification of broader areas within which preservation activities should be concentrated.

### 5.3.1 Background

Ecological preservation priorities should ideally be developed in light of information on the status of ecological communities within the planning area, giving consideration to existing priorities of other agencies and organizations. Natural heritage data for the planning area are sparse. The Wildlife Resources Commission (NCWRC) has identified a state threatened mussel, the mountain creekshell (*Villosa vanuxemensis*), at several sites in the Peachtree Creek and Martins Creek. Since these drainages constitute the majority of the planning area, however, this provides little basis upon which to prioritize specific sub-drainages. A natural heritage inventory has not yet been conducted in Cherokee County, and little additional information is available for the area.

The Land Trust for the Little Tennessee, which has recently become active in the Hiwassee River basin, has not yet developed specific protection priorities for the area. The HRWC's protection priorities include riparian areas and wetlands throughout the upper Hiwassee River

basin. However, no specific sub-watersheds within this portion of the basin have yet been prioritized by HWRC. Protection of habitat for the mountain creekshell is considered a conservation priority in the NCWRC's Wildlife Action Plan (NCWRC, 2005), though the NCWRC does not have specific land preservation targets.

### **5.3.2 Recommended Focus Areas**

Since existing natural heritage data and current local priorities provide no clear basis to focus preservation activities, this plan recommends targeting preservation activities at those portions of the planning area that currently support a high level of ecological function. This includes the portion of the Peachtree drainage above Mission Road and upper Martins Creek (see Figure 5.1). Concentrating preservation in these two areas should help retain existing function here, as well as help to prevent downstream degradation. These areas are also upstream of sites at which the mountain creekshell was found. While preservation of headwaters tracts in other portions of the planning area is also important to prevent further degradation in ecological condition, emphasizing preservation in the areas outlined above is particularly important.

- Upper Peachtree drainage. The benthic macroinvertebrate community has historically received a rating of Excellent at a site near Mission Road. Sub-watersheds upstream of this site include Upper Peachtree (UPT), Moore Branch (MOB), Pipes Branch (PBR) and a portion of Middle Peachtree (MPT). The Peachtree Headwaters sub-watershed (PHW) is also upstream, but lies entirely within the Nantahala National Forest.
- Upper Martins Creek sub-watershed (UMC). This largely undeveloped sub-watershed remains in best condition of all areas outside of the upper Peachtree drainage.