
Summary of Findings and Recommendations for the Little River and Bledsoe Creek Local Watershed Plan

River Basin: New

8-digit Cataloging Unit: 05050001

County: Alleghany

This LWP initiative focused on a 6.5-square mile watershed (Bledsoe Creek) in central Alleghany County, within the Little River hydrologic unit (HU 05050001030020) of the New River basin. The LWP area is within the New River Plateau ecoregion of the Blue Ridge physiographic province, in extreme northwestern North Carolina. The larger (77-square mile) Little River watershed is characterized by a mix of forested and agricultural landscapes, but the Bledsoe Creek watershed includes most of the Town of Sparta and therefore contains significant urban/impervious cover. The two sub-watersheds comprising the Bledsoe Creek drainage were selected as the focus area for watershed assessment and planning on the basis of water quality and aquatic habitat data that indicated declining watershed health, and because local stakeholders were seeking to implement stormwater management, buffer restoration and greenway projects as solutions to these problems. In addition, the upper portion of the Bledsoe Creek focus area included opportunities for traditional stream restoration projects within a rural/agricultural landscape. Stream classifications throughout the Little River watershed are Class C (secondary recreation and aquatic wildlife survival/propagation), with most streams (including Bledsoe Creek) also receiving a supplemental classification of Trout waters (Tr). No waters within the LWP study area are currently listed as Impaired by the state DWQ; however, water quality and aquatic habitat impacts within Bledsoe Creek are evident from several stressors (see below).

Phase I of the LWP (initial watershed characterization) focused on the Little River hydrologic unit (77 square miles) and began in late summer of 2003, ending with production of the Preliminary Findings & Recommendations report in March 2004. Phase II (December 2005 through March 2007) included detailed assessment of field conditions and identification of watershed projects in the Little River and Brush Creek hydrologic units (111 square miles), including the two priority sub-watersheds comprising the 6.5-square mile Bledsoe Creek drainage. Phase III integrated all data regarding the functional health of the focus area sub-watersheds (upper and lower Bledsoe Creek) with input and recommendations from local stakeholders to produce the final Watershed Management Plan (June 2007).

The LWP Technical Advisory Committee (TAC) met periodically throughout Phases II and III of the work and consisted of representatives from: the Town of Sparta, Alleghany County government, Alleghany Soil & Water Conservation District, Alleghany NRCS, NC Wildlife Resources Commission, NC Division of Water Quality, NC DOT (Project Bog Turtle), NC Clean Water Management Trust Fund, Blue Ridge Rural Land Trust, National Committee for the New River, Alleghany Cooperative Extension Service (through NCSU), the High Country Council of Governments, and New River Community Partners.

The key stressors that were identified for the Bledsoe Creek focus area, and applicable management measures to address these stressors, are summarized in Table 1. There are several watershed stressors common to both the upper and lower sub-watersheds. However, the condition of riparian buffers is generally poorer within upper Bledsoe Creek, while stream stability and aquatic habitat are more degraded in the lower Bledsoe Creek system. Furthermore, lower Bledsoe Creek's drainage area includes significantly higher impervious cover associated with the Town of Sparta, and therefore includes greater opportunity for stormwater best management practices (BMPs).

Watershed projects identified and prioritized within the LWP focus area include stream and riparian buffer restoration/enhancement sites, wetlands restoration opportunities, stream preservation sites and numerous stormwater BMP sites. The major *institutional* recommendations developed for the final Plan (and endorsed by the local TAC) include:

- Develop and implement a local watershed education program;
- Coordinate local efforts to fund a greenway along Bledsoe Creek with any new stream, riparian buffer, wetlands and stormwater BMP projects, and any watershed education efforts being pursued;
- Adopt new ordinances (or strengthen existing ones) related to stormwater management, habitat conservation and riparian buffer protection;
- Work with the NC Wildlife Resources Commission, the NC Natural Heritage Program, Project Bog Turtle and NC DOT to inventory and protect local bog turtle habitat;
- Improve monitoring/enforcement of local erosion and sediment control practices;
- Form a Local Watershed Council to prioritize, fund and oversee the long-term implementation of recommended projects and initiatives identified within the Plan.

Table 1. Key watershed stressors and management strategies for the Bledsoe Creek watershed

Stressors	Management Strategies
<i>Upper Bledsoe Creek</i>	
Deforested riparian buffers	Buffer protection ordinance; buffer restoration projects
Livestock access to streams	Fencing and alternate water; agricultural BMPs
Unstable stream banks; degraded aquatic habitat	Stream restoration/enhancement projects; fencing out livestock; buffer protection/restoration
Elevated nutrients & sediment loading in streams	Agricultural BMPs related to fertilizers, livestock access and buffer protection/restoration; stream restoration
Degraded (drained, cleared) wetlands	Buffer protection and conservation ordinance; wetland restoration and preservation projects
<i>Lower Bledsoe Creek</i>	
Degraded wetlands, including bog turtle habitat	Wetlands restoration and preservation projects; watershed education; cooperative efforts among local stakeholders, NC WRC, NC Natural Heritage Program, NC DOT and Project Bog Turtle
Deforested riparian buffers	Buffer protection/conservation ordinance; buffer restoration projects
Unstable stream banks, incised channels; channel straightening	Stream restoration/enhancement projects; buffer protection ordinance
Urban stormwater runoff; excessive impervious cover	Town and county ordinance(s) to limit impervious cover, encourage Low Impact Development in new site design, and manage construction and post-construction stormwater; strategically located stormwater BMP projects
Elevated fecal and nutrient loading	Illicit discharge detection and elimination program; watershed education re fertilizer usage/application
Elevated metals and sediments in storm flow	Comprehensive local stormwater management program; stormwater BMP projects; improve monitoring & enforcement of sediment & erosion control practices; erosion & sediment control education/workshops