

Summary of Findings and Recommendations for the Catheys Creek Local Watershed Plan

The Catheys Creek Local Watershed Plan (LWP) area is 45 square miles and is located in Rutherford County. This watershed consists of the hydrologic unit 03050105070020, located in the northern portion of the Broad River basin. It is a primarily rural watershed, with much of its land use in forest, pasture, and some row crops, but it does include the town of Spindale and associated residential, commercial, and industrial development at its southern end. Most streams in the LWP area are classified as Water Supply V (WS-V); a portion of lower Hollands Creek and its tributaries are class C. Lower Catheys Creek, Hollands Creek, and Mill Creek are on the 2010 303(d) list, and all are listed due to impaired biological integrity.

The local watershed planning effort began in 2003 and was completed in 2005. It was a three-phased effort, including a preliminary watershed characterization, watershed assessment, and development of plan recommendations. Its objectives were to (1) characterize the watershed, identifying types and locations of degraded ecological function, and (2) develop a plan to provide specific solutions to identified problems. Watershed Education for Communities and Officials (WECO) convened a broad group of stakeholders, the Catheys Creek Technical Watershed Advisory Committee, who met to oversee the plan's progress and develop recommendations. This group was composed of representatives of Spindale, Rutherford County Cooperative Extension and Soil and Water Conservation District, Isothermal Planning and Development, Rutherford County Outdoor Coalition, NC Division of Water Quality, NC Wildlife Resources Commission, NC Division of Forest Resources, Natural Resources Conservation District, the community of Union Mills, Concerned Citizens of Rutherford County, and other citizens.

Field monitoring and GIS assessment pinpointed major causes of degradation for watershed streams. Many rural and urban streams were incised and eroding, and excessive sedimentation was common. In addition to excessive sedimentation, key stressors for urban streams included stormwater impacts from the urbanized area of Spindale and widespread fecal coliform bacteria contamination at both base and stormflows. Livestock access to streams, dumping of solid waste in urban streams, and dye inputs to Case Branch and Reynolds Creek were also noted. Moderately high levels of heavy metals (mercury, chromium, and copper) were found in stream sediments below old gold mining operations and the town of Spindale; it is unknown if these metal levels impact stream organisms.

A plan to address watershed stressors was finalized in August 2005; key stressors for the Catheys Creek watershed and management strategies to address them are listed in Table 1. This plan identified projects throughout the watershed, including stream and wetland restoration and enhancement, buffer planting, livestock best management practices, and stormwater best management practices. Four subwatersheds, including Mill Creek, William Creek, and two upper subwatersheds in the Hollands Creek drainage were identified as priority implementation areas. Other strategies, including public education on pollution prevention and stormwater management, improved forestry practices, and better building practices for roads on steep slopes were described.

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

Stressors and Issues	Management Strategies
Excess sedimentation	Cropland and livestock BMPs, forestry BMPs, road/driveway BMPs, stream restoration
Stormwater runoff	Stormwater BMPs, stormwater education
Fecal coliform bacteria	Urban citizen education
Point source pollution	Insure well-maintained wastewater treatment facilities
Possible mercury contamination from gold mining	Avoid release of existing sediment-bound metals