

The New River Watershed Tree BMP Project

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The New River Watershed covers 765 square miles in Ashe, Alleghany, and Watauga counties. There are 825 miles of freshwater streams in the Basin. Parts of the New River are classified as a State Natural / Scenic River and a National Wild and Scenic River, one of only four in North Carolina. In addition, the New River has been designated an American Heritage River, one of only 14 in the nation. The land comprising the New River Basin is extremely mountainous and distinctly rural. Population of the basin is approximately 54,000. There are six municipalities within the basin including Boone, Blowing Rock, Jefferson, West Jefferson, Lansing, and Sparta. Christmas Tree production is very important to the economy of the region.

Generally, water quality in the New River Watershed is excellent supporting outstanding resource waters, high quality waters and an abundance of trout streams. It also has special environmental, educational and recreational values such as trout fishing, swimming, canoeing, hiking, camping, and wildlife viewing. However, turbidity caused by sediment runoff and stream bank erosion is sometimes a problem.

The New River Watershed Christmas Tree BMP Project was proposed by the NC Cooperative Extension Service to the NC Department of Environment and Natural Resources. The project is funded under the US EPA 319 program, and is often referred to simply as the "New River 319 Project". The 319 program primarily funds projects which demonstrate methods of protecting water quality and reducing non-point source pollution. Non-point source pollution is that which comes from a broad area, such as runoff.

The project team is headed by the North Carolina Cooperative Extension Service. Included on the steering committee are extension personnel from the three counties as well as extension specialists from the departments of Soil Science, Forestry, and Biological and Agricultural Engineering. Cooperating organizations include the USDA Natural Resources Conservation Service, the three Soil and Water Conservation Districts, the NC Department of Environment and Natural Resources, the NC Wildlife Resource Commission, and the NC Christmas Tree Association. Coordination of the project is being handled by Jim Rideout, Extension Specialist for Soil Fertility and Environmental Quality.

A key part of the project will be the demonstration of "Best Management Practices" (BMPs) that protect water quality. For Christmas trees, these include ground cover management, stream riparian buffers, prescription fertility, integrated pest management (IPM), predator insects, proper road construction

and proper site preparation. In all, 32 demonstrations are planned. These demonstrations will be established in all three counties by the NC Cooperative Extension Service. The USDA Natural Resource Conservation Service will also be assisting in the farm road demonstrations. Some farms may have multiple demonstrations. The demonstration sites will be used for educational efforts. These will include tours, field days, and grower workshops.

Another key part of the project will be the establishment of a basin-wide water quality monitoring program. Water quality monitoring to evaluate the effectiveness of Christmas Tree BMPs would include upstream and downstream storm samples before and after BMP implementation. Storm samples will be collected, and permanent cross sections will be established on five critical stream reaches to measure changes in channel and bank stability before and after BMP installation. Macroinvertebrate and fish assessments, riparian health assessments, and wetland inventories will also be conducted before and after BMPs. Volunteers will be trained to conduct watershed inventories, assess macroinvertebrate and trout (fish) health, and to collect sediment samples. Volunteers will also be trained and utilized to help restore and repair eroding streambanks.

A project newsletter will be published twice a year to inform growers and public of project happenings. If you wish to receive this newsletter, or simply want more information on this project, please contact the NC Cooperative Extension Service in Alleghany, Ashe, or Watauga counties. Also, if you wish to cooperate on any of the demonstrations, please contact your county extension agent.



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