

City of Raleigh Watershed Protection Program

Since 2005, Raleigh has partnered with local land trusts and local governments to protect its source water in the Upper Neuse River Basin. The Basin drains into Falls Lake, the primary drinking water source for over 500,000 people. Through its Watershed Protection Program, Raleigh has invested \$4.7 million to permanently conserve over 3,500 priority acres and 43 miles of stream that filter nutrients and sediment from the water before it reaches the city's treatment plants. In 2011, the City passed an ordinance establishing a Watershed Protection Fee, a volumetric fee of 1¢ per 100-gallons-used that provides a dedicated source of program funding.

The Watershed Protection Program is unique in that most the lands conserved to date are located outside of Raleigh's jurisdiction. The program is focused in the Upper Neuse Basin, which covers 770 m² and includes parts of six counties and eight municipalities. This region is experiencing rapid growth. By 2030, the population is expected to increase by 90% and the number of people receiving drinking water is expected to double. In 2008, Falls Lake was placed on NC's list of impaired waters under Section 303(d) of the Clean Water Act. Growing concern about long-term degradation of the Lake and associated impacts on water supply resulted in regulatory requirements mandating pollution reduction. The Watershed Protection Program provides a non-regulatory, voluntary program that complements these requirements to ensure source water quality. In addition to water quality benefits, the conserved lands provide public benefits including open space, recreational opportunities, and wildlife habitat.

The program represents a strong and functional partnership between numerous entities. The City of Raleigh Public Utilities Department manages the finances, helps coordinate partners, reviews projects, and work with stakeholders to improve the program. Conservation Trust for North Carolina coordinates program implementation. Six local land trusts implement the program, working with landowners and funding partners to negotiate and close projects and to monitor conserved properties to ensure water quality benefits over the long term. National conservation groups, other local governments and state partners help develop projects and provide funding and support. The community is involved through stakeholder meetings, educational workshops, and comment periods on program implementation.

There is robust science that says maintaining healthy, forested landscapes can be an effective strategy for promoting source water quality, but quantifying actual impacts of land cover change on water quality is challenging. Raleigh's Watershed Protection Program has addressed this challenge in two ways: conservation planning, and developing a water quality benefits estimation tool. The Upper Neuse Clean Water Initiative Conservation Plan identifies the most important properties to protect to ensure water quality, prioritizing projects to maximize cost-effectiveness. The Water Quality Benefits Estimation Tool estimates the amount of nitrogen, phosphorous and sediment prevented from entering the water by permanently protecting a particular parcel, helping quantify the water quality benefits of land protection. To date, the projects are estimated to have helped avoid over 8400 pounds of nitrogen and 1000 pounds of phosphorus from entering the Lake each year.

Raleigh's program is a nationally recognized watershed protection effort. The program has been featured locally, regionally, and nationally in conference sessions, workshops, reports and presentations, sharing information, guidance, advice, and lessons learned. Currently, partners are working to update the conservation plan and develop new outreach tools to garner additional public and partner support.