

New York's Six Mile Creek Riparian Restoration Project

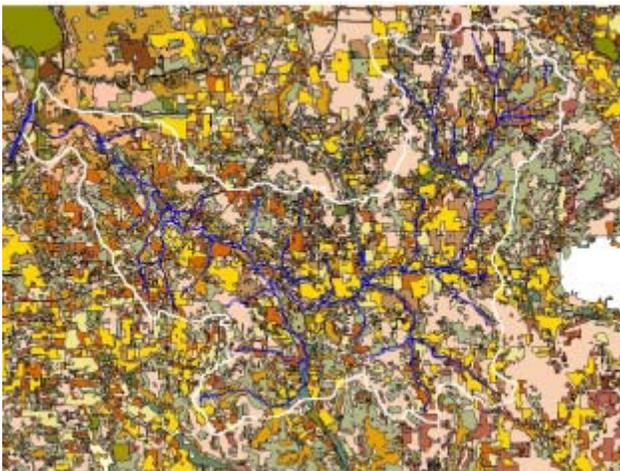


BACKGROUND

The Cayuga Lake Intermunicipal Organization is a group of towns, cities, watershed organizations, and others whose goal is to decrease sediment in the lake. The organization has endorsed the Six Mile Creek Stream Corridor Restoration Project as a means to accomplish this goal. The Six Mile Creek project is also part of a wider management plan for the Cayuga Lake Watershed conducted by the City of Ithaca. This plan identified forest cover as a means to enhance water and air quality, an essential for wildlife habitat and economic benefits. Maintaining and restoring the integrity of forest cover has been identified as a priority in the watershed by the Tompkins County Water Quality Strategy Plan. The riparian restoration effort will be conducted in conjunction with a streambank stabilization project in Six Mile Creek, which is funded by the New York State (NYS) Clean Air – Clean Water Bond Act.

LOCATION

The Six Mile Creek subwatershed is located within Tompkins County and parts of the towns of Ithaca, Dryden, Caroline, Danby, and the City of Ithaca. It is the source of drinking water for the City of Ithaca, a Class A trout stream, and a tributary to Cayuga Lake. The lake is listed as a priority water body by the State of New York.



Six Mile Creek Watershed

ISSUES BEING ADDRESSED

Development pressure, agricultural runoff, property loss through erosion, and increased silt loading from ditching practices are areas of concern.

The main impairments to the creek are silt loading, associated habitat degradation, and the lack of an effective riparian buffer zone management program. Some degree of silt loading, however, is natural because the watershed is located on glacial till. Monitoring has concluded that suspended sediment averages 1,420 tons per month (USGS 1997).

Sediment loading to streams is the predominant state- and county-identified threat to water quality and designated water uses in Tompkins County. Sediment loading has created massive erosion problems, impaired fisheries, and increased treatment costs of drinking water.

GOALS

The project implements a program of forest and riparian buffers, designed to decrease silt and nutrient loading to improve water quality and habitat in the Six Mile Creek Watershed. The project will:

- Establish buffer zone remediation strategies through analysis of land use, vegetative cover, and sensitive areas.
- Assess initial riparian corridor conditions to establish priority areas for remediation.
- Conduct educational workshops for landowners on the benefits, limitations, and installation of forests and riparian buffers.
- Recruit and train volunteers to assist with implementation.
- Identify land acquisition priorities, implement an acquisition program, and monitor progress.
- Propose local ordinances for riparian corridor protection.
- Organize public participation sessions.
- Conduct site preparation, planting, and maintenance.
- Collect bioassessment indicator samples using macroinvertebrates, fish, and water quality parameters.

Since 1999, the Northeastern Area and the Northeastern Area Association of State Foresters have sponsored a cooperative challenge grants program to promote watershed health and restoration through the conservation, restoration, and sound stewardship of trees and forests.

- Restore recreational use of Cayuga Lake.
- Improve fisheries by decreasing silt loading.
- Maintain and improve forest cover.
- Encourage cooperative efforts among local municipalities, conservation agencies, and private landowners.
- Minimize sedimentation by fostering the use of BMPs.

METHODOLOGY

To accomplish the improvement and management of the forest cover integrity, the following programs are being implemented:

- Planners, elected officials, and watershed stakeholders will test a user-friendly comprehensive water resources modeling program. It will have the ability to answer 'what if' questions pertaining to land use, as well as water resource designated uses, quality, and quantity. The 'what if' scenarios will reflect the effect of riparian buffers on water quality and stream health.
- Train landowners, county officials, and the general public in conservation easements, management of private forestland, public education, tax assessment reduction, Unique Natural Areas, and farm riparian buffer corridors.
- Adopt a model ordinance for forest and riparian forest protection through presentations, workshops, and site demonstrations to local town and planning boards.
- Identify model forest areas to demonstrate forest management, forest restoration methods, wildlife management, harvesting techniques, and model best management practices (BMPs) for water quality protection.
- Annually inspect the entire stream corridor to detect areas of rapid bank erosion or debris accumulation.
- Install riparian buffers and inspect them annually.
- The effect of the forest and riparian buffer restoration program will be followed and used to educate various publics about the benefits of forest cover and riparian corridors.

OUTCOMES / ACCOMPLISHMENTS

A municipal officials' tour entitled, *Watershed Trip for Elected Officials* was conducted in June 2001. The tour focused on buffers and pinpointed various other issues.

An annual outreach event entitled, *Neighbors Around The Lake* focused on local watershed issues and is targeted toward community members.

Two model forests have been identified – Yellow Barn State Forest and the City's Natural Areas downstream from the Ithaca drinking water reservoir.

Forest restoration areas were identified at the Mullholand Wild Flower Preserve, inactive farmlands, and farmland in the Caroline Valley flood plain.

PARTNERS

- Cayuga Lake Watershed Intermunicipal Organization
- Finger Lakes Land Trust
- Tompkins County
- Municipalities within the watershed
- Cornell University Cooperative Extension Service
- Soil and Water Conservation Districts
- U. S. Fish and Wildlife Service
- NYS Department of Environmental Conservation
- Others

FUTURE PLANS

Over the next 3 years, the City of Ithaca's Environmental Laboratories will manage the implementation of multiple activities to meet the project's stated goals.

Installation of riparian buffers on Six Mile Creek will begin in 2002.

Educational workshops targeted toward landowners on the benefits, limitation, and installation of forests and riparian buffers are scheduled for the fall of 2001 and spring of 2002.

Beginning in late 2002, work with local governments to develop and adopt model ordinances will begin.

Project Contact

Dr. Jose L. Lozano, Director
Environmental Laboratories, City of Ithaca
525 Third St.
Ithaca, NY 14850
Phone: 607-273-8381
Fax: 607-273-8433
Email: jll13@cornell.edu

Roxanna L. Johnston, Water Quality Analyst
Address, Phone, and Fax same as above
Phone: 607-273-4680
Email: johnstor@clarityconnect.com

Federal Contact

David Welsch, Forester
Northeastern Area S&PF
Louis C. Wyman Forestry Sciences Laboratory
271 Mast Rd.
P.O. Box 640
Durham, NH 03824-0640
Phone: 603-868-7617
Fax: 603-868-7604
Email: dwelsch@fs.fed.us

Grant Amount: \$100,000