



Woonasquatucket Watershed Greenspace Protection and Implementation Strategy

BACKGROUND

Under the state of Rhode Island's Unified Watershed Assessment, the Woonasquatucket Watershed did not meet clean water goals and was added to the state restoration list. Metals, pathogens, and biodiversity impacts were among the major causes of impairments. In addition, the Rhode Island Nonpoint Source Pollution Management Plan documented that water quality degradation is directly correlated with growth and land use. The cumulative effects of poorly planned growth have severe ramifications on water quality. It causes the conversion of open space to development, results in loss of wildlife habitat, and deteriorates community character. The protection and restoration of the Woonasquatucket River Watershed in Northeastern Rhode Island requires a regional, community-based effort to protect targeted critical forested areas, local water resources, and natural habitats.

LOCATION

The Woonasquatucket River has been designated an American Heritage River. Its watershed is in a diverse geographic area in north-central Rhode Island. The headwaters are located in the rural communities of Glocester, Smithfield, and North Smithfield. From its source at Primrose Pond, the river flows 18 miles through increasingly urbanized areas into Providence, eventually entering Narragansett Bay. Included in the watershed are portions of the towns of Glocester, Smithfield, North Smithfield, Johnston, North Providence, and the City of

Providence. The entire watershed will be the subject of the Greenspace survey.

ISSUES BEING ADDRESSED

Approximately 50 percent of the 42 miles of the mainstem and tributaries is considered impaired due to nonpoint source pollution, which is the greatest cause of the water quality problems. Other causes include:

- Biodiversity impacts
- Excessive amounts of metal concentrations and pathogens
- Population growth and land use change

Water quality degradation is directly correlated with growth and land use. The cumulative effects of farm and forest conversion, the loss of wildlife habitat, and the deterioration of community character have caused severe ramifications on water quality.

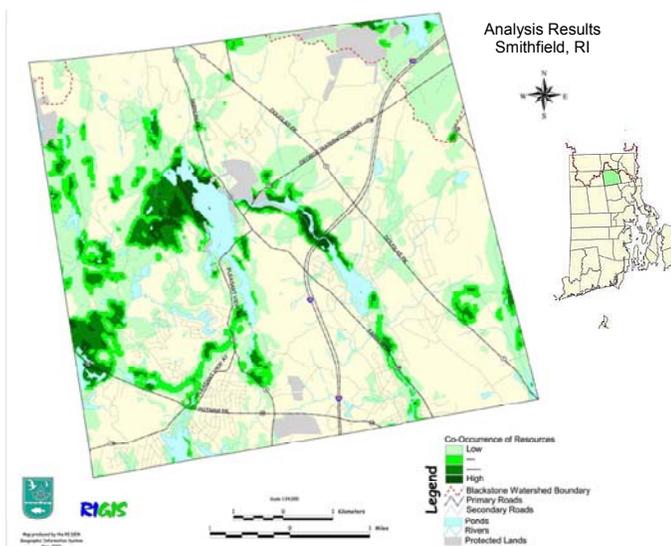
GOALS

- Protect water quality by encouraging the establishment of unfragmented and forested greenbelts.
- Protect and manage existing forestland, and encourage the restoration of contiguous forestland and undeveloped greenspaces.
- Plan and manage new growth to minimize land use impacts on water quality and other sensitive natural resources.

METHODOLOGY

The objectives will be met by:

- Holding workshops and developing publications to communicate the importance of forests and forest stewardship in maintaining watershed health and water quality.
- Demonstrating how open space protection benefits watershed health and other watershed issues.
- Dovetailing efforts with existing conservation development programs to address water quality and resource protection issues.
- Encouraging existing and new partnerships to engage local community groups and the local leadership in watershed planning for the protection and restoration of open space.
- Facilitating town meetings and focus groups to garner local input.
- Producing GIS themes for each participating town, such as natural resource, recreational, and cultural coverage, as well as a composite map of co-occurring themes, and facilitating community review of the data and maps.



Map showing co-occurrence of resources.

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.

- Preparing educational materials to promote the stewardship and protection of forestlands.
- Organizing local greenspace committees comprised of town council members, planning board members, conservation commission members, and land trust members from each community within the watershed.
- Conducting workshops with local participants to establish resource protection priorities. Assessing the resource protection priorities of each town using one of the following methods: (1) administer a survey, (2) conduct field trips of the town, and (3) hold community focus groups.
- Synthesizing local information into a watershed-wide resource protection map, then organizing workshops for local and regional councils and boards to provide them with watershed-wide protection priority information.
- Analyzing local comprehensive plans and land use ordinances to determine what changes should be made to advance protection targets.
- Arranging for a consultant to work with the Woonasquatucket River Watershed Council as well as community planners to create a regional umbrella for the proposed Greenspace Strategy and foster coordinated, regional adoption and implementation of strategies where needed.
- Providing assistance to watershed communities on the development of land acquisition strategies and priority resource protection through creative land use techniques and greenspace restoration strategies.
- Preparing a regional Greenspace Protection Strategy that will include maps of local and watershed-wide resource protection priorities; results of an analysis of local comprehensive plans and/or land use regulations, including a list of recommended strategies for each community for integration into their comprehensive plans; specific priorities and actions for each community and project partners for resource protection and restoration within the watershed; and a list of applicable funding sources for land acquisition and restoration.

OUTCOMES AND ACCOMPLISHMENTS

Locally based priorities will be identified to establish a more comprehensive land acquisition program and to encourage the use of creative land use techniques to guide growth away from sensitive natural and cultural resources. The plan will also provide watershed communities with a sound framework for land protection and guidance in obtaining federal, state, and private land acquisition funds. Given the diverse geographic area and range of land uses in the watershed, this framework and/or the methodology used in creating the plan can be applied by watersheds throughout the region.

The final product of this project will be a regional plan supported by local communities that lays out the implementation of a watershed-wide land protection and restoration program. The strategy will encourage activities on the local level that would benefit the region as a whole. Planning and implementation activities will occur on a town-by-

town basis to allow each community to build consensus on their land protection priorities. The regional effort, based upon broader watershed protection goals, will serve as an ideal way for communities to work together to achieve common goals.

Specific outcomes include:

- Resource protection priority coverage and maps for each community.
- Educational materials concerning forest stewardship and protection with respect to water quality and watershed protection.
- Recommendations for amendments to local comprehensive plans and zoning ordinances.
- Assistance to communities in developing land acquisition strategies and priority resource protection through creative land use techniques.
- A Woonasquatucket Watershed Greenspace Protection Strategy.

PARTNERS

- City of Providence
- The Towns of Johnston, North Providence, North Smithfield, Smithfield, and Gloucester
- Woonasquatucket River Greenway Project
- Woonasquatucket River Watershed Council
- RI Department of Environmental Management
- US Environmental Protection Agency
- Rural Lands Coalition
- Rhode Island Forest Conservators Organization
- Southern New England Forest Consortium
- Audubon Society of Rhode Island
- RI Greenways Council
- Northern RI Conservation District

FUTURE PLANS

This will also result in a statewide system of greenways that will function as the backbone of land protection efforts in the state and serve a variety of recreational, cultural, and environmental purposes.

Project Contact

Fred Presley
 RIDEM, Sustainable Watersheds Office
 Phone: 401-222-3434 Ext. 4417
 Fax: 401-222-2591
 Email: fpresley@dem.state.ri.us

Federal Contact

Albert Todd, Hydrologist
 410 Severn Avenue, Suite 109
 Annapolis, MD 21403
 Phone: 410-267-5705 OR 800-968-7229 Ext. 705
 Fax: 410-267-5777
 Email: todd.al@epamail.epa.gov

Grant Amount: \$100,000