

## The Forest's Role in Planning for a Sustainable Water Resource

After completing an analysis of the role that agricultural land plays in protecting the Pomperaug Watershed's water resources, the Coalition's Land Use Committee has turned its attention to studying the Watershed's forests as they relate to Watershed protection. Forested lands help protect and cleanse our water. Forests typically slow the flow of water to streams during rainstorms, decrease erosion, and remove excess nutrients. They may also act as areas of groundwater recharge.

Numerous scientific studies have shown that as land is converted from forest to urban or residential use, surface water can become degraded. For example, the hard surfaces such as roads, driveways and rooftops typical of urban and residential areas prevent rainfall from soaking into the ground. Instead, stormwater is quickly directed in high volumes to wetlands, streams and rivers, causing flash flooding and erosion. Along the way this rainfall often picks up pollutants such as oil, sand and pesticides, which then end up in the receiving stream or wetland.

The Committee is working to identify and map the location of forested areas within the Pomperaug Watershed, and to determine the current level of protection of these areas. It has met with the Connecticut Forest & Park Association, the Department of Environmental Protection and others to develop a set of criteria to identify those forested areas that are most critical to water protection. The Council of Governments of the Central Naugatuck Valley has prepared a series of computerized mapping analyses for the Coalition identifying these "Critical Lands." The Land Use Committee defines "Critical Lands" as those lands containing or being adjacent to an important watershed area. Other criteria which may be employed in determining which lands are critical include forests that:

- are adjacent to open land that is permanently protected from development;
- contain steep slopes where clearing would cause erosion;
- contain endangered species;
- contain vernal pools (seasonal pools that hold water in the spring and dry up later in the season;



The banks of this section of the Pomperaug have good forest cover, helping to protect water quality and fish habitat. Photo by Cindy Hunt-Stowell.

such ponds are important breeding habitat for frogs and salamanders);

- contain oak or tulip poplar (species identified by the State as of importance statewide);
- are parcels over 15 acres in size whose owner is committed to keeping the parcel forested, where local land use regulations would allow for conversion to a more intense use.

The Committee will provide a final *Critical Forested Lands* map and an accompanying publication to selected landowners, town land use commissioners, local land trusts and others who can help the Coalition protect these areas. It will also host a workshop on its findings and plans. To keep up to date on the Coalition's progress please visit our website or contact us via phone or email.

### **POMPERAUG PONDERINGS**

**Q: Where do the rainwater and runoff that flow into storm drains end up?**

**A: See article on Page 2.**

## New Board Member

Elected to the Coalition Board of Directors last April, Edward Edelson came to the Coalition as a result of his attendance at a Southbury Planning Commission meeting. The Coalition was making a presentation on the benefits of the preservation and protection of farmland and farming to local water resource protection. Ed became very interested in the work the Coalition is doing to protect and preserve local water resources, and jumped into involvement with the Coalition in his characteristic enthusiastic way.

Ed recently retired from Exxon-Mobil and with his wife Christine, has reopened the Cornucopia at Oldfield Bed and Breakfast in Southbury's historic district. The Edelsons have graciously made their beautiful 1820s facility available to the Coalition for meetings.

"I am very proud to be associated with the important work of the Coalition. I was impressed with the first presentation I saw at the Southbury Planning Commission. As I have become more involved, I am even more impressed with what the

staff, researchers and volunteers have accomplished and the potential for even more in the future. As a Southbury home owner and business person, I recognize the importance of all this effort. And I hope I can make a contribution as a new Director."



**New Coalition Director Ed Edelson with his wife Christine and grandson.**

There is no question that Ed will make a contribution to the mission and work of the Coalition -- indeed, he already has. We are grateful for his interest in the Coalition and are very lucky to have him!

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### **PRWC STAFF**

Acting Director  
*Margery Winters*  
Administrative Coordinator  
*Marion Griswold*  
Project Manager, Instream  
Habitat Program  
*A. Hunter Brawley*

### **BOARD OF DIRECTORS**

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## Summer Intern Report: Mapping Woodbury's Stormwater System

Thanks to the excellent work of Elizabeth North, a Woodbury native and University of New Hampshire student, the Coalition now has a map showing the location of catch basins and stormwater outfall pipes in Woodbury. Using a hand held global positioning system (GPS) and palm pilot on loan to the Coalition from the Town of Woodbury, Liz mapped catch basins and storm water outfall pipes at selected locations in Woodbury. The Council of Governments Central Naugatuck Valley (COGCNV) acquired the GPS and palm pilot for Woodbury and other towns in its region through the Connecticut Department of Environmental Protection Clean Water Fund. The GPS data Elizabeth collected was downloaded and added to the Coalition's Geographic Information System (GIS), a computerized mapping system.

The mapping of the location of catch basins and outfall pipes throughout the Watershed enables the Coalition to follow in detail the path rainwater takes after it hits the ground. Typically, in developed areas such as towns, rainwater (or stormwater) quickly runs off hard or 'impervious' surfaces such as rooftops, driveways, parking lots and roads. This water is usually carried away by an underground system of storm drains, catch basins and

pipes until it ultimately is discharged into a wetland, stream, river or lake. Pollutants such as oils from roads, pet waste, pesticides, and road sand can be washed into stormdrains and degrade the quality of the water body into which stormwater is discharged.

Without proper maintenance these systems often get clogged by leaves, sand, and litter, causing additional erosion as stormwater seeks new discharge routes. Routine maintenance of the stormwater systems is necessary to ensure that they function as they should. Locating the catch basins and outfalls and documenting their condition is the first step in a town's efforts to keep these systems functioning properly. Observation of the physical condition of the outfalls, such as whether there is flowing water, odors, or blockages, can also aid a town in locating accidental or illegal discharges of pollutants to the stormwater system.

Because the map is now part of the Coalition's computerized Geographic Information System, we can "click" on a specific catch basin or pipe and read Liz's notes detailing the physical conditions of each location. The equipment and information has been shared with the Town of Woodbury which can use it to facilitate its

stormwater system management. The Coalition will use the information to develop educational programs that promote stewardship by showing people how stormwater travels through their neighborhoods. Our research teams will also use the data to identify 'connected impervious' surfaces (those areas that move water directly to rivers or wetlands, bypassing the necessary and important step of recharge into the groundwater, thus disrupting the hydrologic cycle) and help us assess impacts from development. We will also share the information with the COGCNV for its regional planning purposes.

**Coalition summer intern Liz North enters Woodbury catch basin data into electronic mapping system.**

**Streamwalk Update**

The 2005 Streamwalk season is coming to a close. Last spring Coalition staff trained volunteers to conduct surveys of stream segments in the Pomperaug Watershed and to record information on the physical conditions of those segments. Information from surveys conducted this summer will be added to the survey data collected from 2000 to 2004. To date about 80% of the Watershed has been surveyed.

The objectives of the Volunteer Streamwalk Program are to document the physical characteristics of the rivers and streams in the Pomperaug Watershed and to involve the community in river conservation steward-

ship. Volunteers receive a basic course in stream ecology, morphology, water quality, non-point source pollution, and the relationship between our community and its rivers and streams. As of June 2005, 99 volunteers, representing all of our Watershed towns, have been trained.

Survey results from this year's survey will be incorporated into the Stream Survey Summary Report prepared by Coalition staff last fall. The report and interactive maps can be seen on the Coalition website.

The Streamwalk information provides a "snapshot" of the Watershed health. Areas of concern that are identified by the volunteers may require more in-depth assessment by professionals and/or frequent monitoring, especially after significant storm/flooding events.

The information from the surveys is already being put to good use. Erosion sites identified during the surveys have been ranked by the Northwest Conservation District for possible stream restoration programs. Coalition staff plans to present the Streamwalk Report

findings to Watershed town staff and land use commissions this winter. A PowerPoint slide show entitled "A Trip Down the River" created from photos taken by volunteers is also planned.

The Coalition is grateful to this year's Streamwalk Volunteers, listed below, and to all volunteers who have helped with this project over the years.

To learn more about this program or to volunteer to help with the survey, please contact the Coalition office at 267-1700 or visit our website.

2005 Streamwalk Volunteers:

- Caitlin Bette-Waner
- Bert Boyson
- Bob DuBois
- Kathleen Favoccia
- Sue & Brian Fitch
- Jeff Fleuren
- Herb & Doris Garber
- Carol & Fred Palmer
- George Rein
- Cris Schaefer
- Clark Sellars
- David & Susan Sherf
- Glenn Sherratt
- Tom Zissu



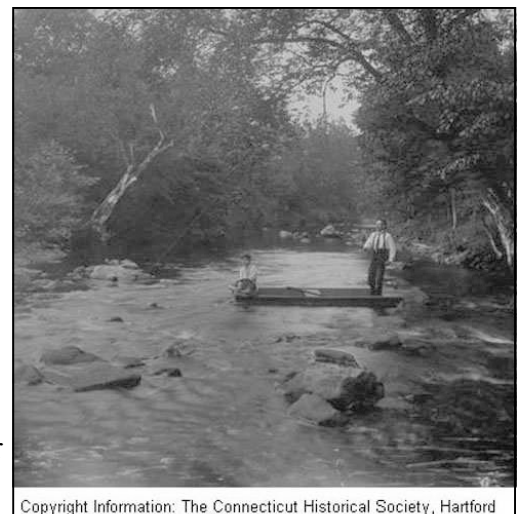
**Streamwalk volunteer training.**

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## Coalition Membership Renewals Coming!

Last fall the Pomperaug River Watershed Coalition launched its first membership campaign. All individuals, families, businesses, and organizations that became members at that time are recognized as Charter Members of the Coalition. Renewal notifications will be going in the mail soon, but it's not too late to become a Charter Member by joining now. In addition to *Watershed News*, our quarterly newsletter, members receive invitations to our annual meeting and other major events, are recognized in our Annual Report, and receive a Watershed map. Members who join at the \$100 or greater level receive a map that shows their own property location within the Watershed. Memberships start at just \$35 for individuals, and every membership helps the Coalition achieve its mission of keeping our local water resources pure and plentiful. To become a member you may fill out our form online ([www.pomperaug.org](http://www.pomperaug.org)) or call the office at 203-267-1700. You may join over the phone right now with your credit card. Your support as a member of the Coalition provides more than financial support: it also becomes a part of a growing voice heard by local, state and national organizations, from town commissions to the national organization River Network. The Pomperaug River Watershed Coalition is made stronger with your support. If you haven't become a member already, please take a moment and join now!



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**Fishing on the Pomperaug, early 20th Century.**