# U P D A T E

## Poultney Mettowee Watershed Partnership

December 2001

Since its inception two years ago, the Poultney-Mettowee Watershed Partnership has brought unexpected and exciting results. The Partnership is a joint initiative of the Poultney-Mettowee Natural Resources Conservation District in Vermont, and New York's Washington County Soil and Water Conservation District, with funding for coordination by the Lake Champlain Basin Program.

Growing from a simple discussion of how conservation groups could work together over state lines, we have received funding from grants for conservation-related projects, launched several on-the-ground projects and completed others, and established numerous new partnerships and collaborations to create future opportunities. Examples of these projects and ideas are highlighted in this second issue of the Poultney-Mettowee Watershed Partnership Update to show you how our goals of assessment, prioritization, and project completion have delivered productive returns.

**Learn more about the Partnership on the web at www.vacd.org/pmnrcd or call 802-287-4284**

Assessment is a major ongoing effort of the Partnership. One tool, research, provides technical evaluation of the scientific concerns in the watershed to justify and support our project goals. An exciting research example is a project completed this year by Green Mountain College faculty, with funding from The Nature Conservancy. Dr. John Field, Dr. Jim Graves, and Dr. Kathy Doyle concluded an in-depth assessment of the Poultney River, evaluating the streambank conditions and plant communities, and prioritizing areas of concern along the riparian areas. This information, along with previous data for the Mettowee and continued work on the Poultney tributaries, provides an invaluable digitized look at the riparian health of the watershed and aids us in prioritizing our efforts in streambank stabilization, buffer installation, and assistance for agricultural practices.

Community assessment is equally as important as technical assessment. We must determine individual concerns and gather ideas from the people who live in the watershed area. In an effort to collect this information, the Partnership coordinators have spoken to each selectboard in the watershed at least once, met with local planning

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# Vermont Department of Environmental Conservation Basin Planning

The Vermont General Assembly enacted legislation that requires developing basin plans for all 17 major river basins in Vermont. These plans must also address "impaired waters" that do not meet Vermont Water Quality Standards under the Federal Clean Water Act of 1972. The plans must also identify strategies, including Total Maximum Daily Loads and Best Management Practices, for remedying water quality problems and assigning water management types to attain and maintain water quality.

A basin plan is intended to provide the Secretary of the Vermont Agency of Natural Resources (ANR) with the data, rationale, and community-based recommendations to support petitions to the Water Resources Board for any changes in the classification and typing of rivers and streams or specific reaches or bodies of water within a given watershed. According to the guidelines, the Vermont Statutes Annotated (6 V.S.A. 215 § 4813) create special obligations on the part of the Commissioners of the Department of Environmental Conservation and the Department of Agriculture, Food and Markets to work cooperatively to resolve farm related water quality problems with respect to basin plans. The Secretary of the ANR retains ultimate responsibility regarding non-point sources of pollution relative to basin planning and agriculture.

According to the Vermont Water Quality Standards (July 2, 2000), the development of the Poultney Mettowee Basin Plan by the Vermont Department of Environmental Conservation (VT DEC) "shall seek to include public participation in all aspects of the planning process". This process serves to identify and inventory problems, solutions, high quality waters, existing uses, other water uses, and significant resources of high public interest. Given this mandate, there are several steps now underway in the Poultney Mettowee watershed.

In the first phase, watershed meetings, forums, and focus groups were held to identify the existing and

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# Poultney Educational Trail

What began last year as a group of teachers and parents looking for outdoor education opportunities for the children of Poultney has become the Poultney Educational Trail — a constantly used, well-developed environmental education opportunity for students, families, and community members throughout the area. With the help of grant funding, support from the National Park Service Rivers and Trails Program, and a lot of strong volunteer help, the trail connects the Poultney Elementary School, Poultney High, and Green Mountain College, with the 4.5 acre Stonebridge property. This area is an outdoor classroom with benches in a clearing, a vernal pool, and an area with a table for water quality experimentation.

Poultney High has begun a new class focused primarily on trail-related research and education. With help from an Orton Foundation Grant, the students spend the semester out on the trail. They research plants and animals that live there, analyze important environmental sites (such as, wetlands and particular tree species), and plot them using GIS (Geographic Information System) technology, learned with Orton equipment and support.

Poultney Elementary School has an outdoor classroom, set up with help from the after-school nature club. Club members built a series of raised beds, put in seeds, plants, and bulbs that would attract specific bugs and butterflies, and cleared a small trail through an overgrown brush area, adjacent to the Educational Trail.

A new brochure and trail map educate trail users about interesting environmental sites such as a beaver dam in a wetland, streambank stabilization projects along the Poultney River, and an old apple orchard that provides wildlife food and cover. *The brochure is available in the school, town office, library, and Partnership office.*

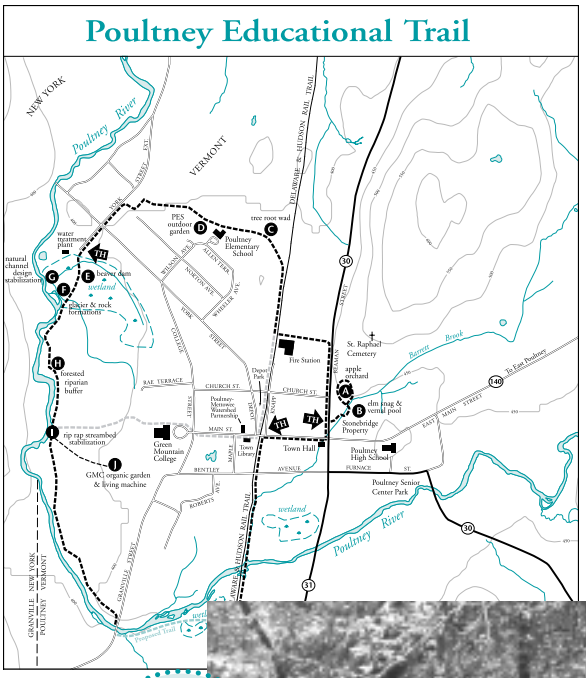


*Photo by Marli Rupe*

# Public Attitudes Survey Results

**Survey data reveals many attitudes toward water pollution**

The results of a telephone survey conducted by the Poultney Mettowee Watershed Partnership show a variety of factors are perceived to be contributing to water pollution in the watershed. Yet, the study finds, not many residents recognize they could be among the causes of pollution. Green Mountain College students called nearly 1200 households in a five-week period and about 300 residents from all seventeen towns within the watershed in Vermont and New York participated. This response rate leads to a level of confidence of 95 percent, plus or minus 3 percent.

Streambank, lakeshore, or land erosion was seen as somewhat of a problem by 46 percent of the respondents; another 13 percent thought that erosion was a serious or very serious problem. Runoff from gravel roads, parking lots, and driveways was also named as somewhat of a problem by 42% of the respondents and a serious or very serious problem by another 21 percent. Over one-third thought that farm and orchard pesticide use was a serious or very serious problem. Thirty-one percent were concerned about the disposal of oil, antifreeze, paint, or other household chemicals. And almost the same number saw municipal sewers or residential septic systems as a serious or very serious problem while 35 percent thought they were somewhat of a problem.

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# Storm Drain Stenciling

This summer, ten members of the Vermont Youth Corps spent a week helping to promote clean water in the Poultney Mettowee Watershed. The crew painted 165 storm drains in Fair Haven, went door-to-door to hand out information sheets from the Lake Champlain Committee with ideas for protecting water quality, and hung colorful posters around town with anti-pollution messages. Similar projects also occurred in Castleton and Poultney with the help of Castleton State College freshmen and Green Mountain College students.

Fair Haven Town Manager, Mike Barslow, expects that the project will increase resident's awareness about sources of water pollution in his community. Barslow said, "most people in town probably don't realize that the storm drains go directly into the river without any treatment."

Most people would never dream of polluting waterways but may do so unknowingly by disposing of unwanted toxic substances in gutters or storm drains. Storm drains are like streams; we must be careful what we put in them.

As development occurs, the landscape becomes more "impervious" to water. Runoff from roofs, lawns, driveways, sidewalks, and streets that was once able to sink into the ground, now just runs over hard surfaces, picking up pollutants— like fertilizer, pesticides, and herbicides, motor oil and vehicular fluid —and carrying them along. All these things can harm or kill aquatic life and ruin our drinking water and recreational experiences.

**Motor Oil**—can damage or kill underwater vegetation and aquatic life. Just one quart can contaminate two million gallons of drinking water or create an eight-acre oil slick. In fact, more oil washes down stormdrains each year than was spilled by the Exxon Valdez.

**Anti-Freeze**—has serious oxygen depleting characteristics that can be harmful to humans, fish, birds, and pets. Animals that live in or drink from contaminated water may die.

**Paint**—can harm people, animals, and the aquatic environment when it is improperly disposed of. Lead-based paint is particularly dangerous.

**Yard Waste**—allows bacteria, phosphorous, and nitrogen to be released into our waterways and clogs storm drains causing local flooding.

**Pesticides and Herbicides**—contain toxic materials that harm humans, animals, aquatic organisms, and plants. When it rains, these materials can run off the lawn and into storm drains and waterways.

**Vermont Youth Corps members on the green in Fair Haven displaying the stencils they used to label village storm drains with the message, "Don't dump!"** *Photo by Joel Flewelling*

**Pet Waste**—is raw sewage that releases both bacteria and oxygen-consuming materials into our surface waters.

**Street Litter**—such as plastic bags, cups, or candy wrappers, wash down storm drains, then eventually wash up on our beaches.

It makes sense to keep the water that enters stormdrains as clean as possible. After all, stormwater flows right into our rivers and lakes.

*From the Lake Champlain Committee, 14 South Williams St., Burlington, VT 05407-3400*

# Conservation Reserve Enhancement Program

The Conservation Reserve Enhancement Program (CREP) is a new conservation program available to Vermont farmers located in the Lake Champlain basin. CREP's goals are to reduce phosphorous loading by installing grass waterways, filter strips, riparian buffers, and restoring wetlands.

CREP will help protect water quality by reimbursing farmers for retiring cropland or marginal farmland surrounding streams, ponds and rivers from agricultural production. Program participants will receive annual rental payments, cost-share assistance and other financial incentives for removing highly sensitive acres from production for a period of 10-15 years. CREP will also provide funds to fence cattle out of streams, provide stream crossings if necessary as well as providing animals with an alternative water source.

# Watershed Festival 2001

Nearly 100 people turned out on Saturday, September 8 for the Poultney Mettowee Watershed Festival held at the Green Mountain College in Poultney. From hands-on exhibits to river walks, face painting to performances, the day featured many fun and educational activities for the entire family. The National Fish and Wildlife Foundation and the Lake Champlain Basin Program provided funding for the Festival.

One exciting tour site was the Living Machine, an experimental natural systems-based approach to water treatment, on the campus of Green Mountain College. The event also included two farm tours, quarry expeditions, a visit to the Slate Valley Museum, a tour of the Merck Forest & Farmland Center, the Dick Walker Sawmill, and the Poultney Educational Trail. Two river walks offered numerous attendees an opportunity to explore the natural features of the river and the critters that inhabit it.

*Photo by Joel Flewelling*

The Association of Vermont Recyclers presented an interactive and entertaining play about recycling and disposal of household materials.

Festival participants enjoyed exhibits on water quality and resource management, storm water management, land clearing, riparian buffers, non-point source pollution, and many more. And the kids enjoyed activities that included face painting, a coloring contest and balloon animals. Those who attended this first annual festival had fun while learning how they could make a difference in their community.

*Photo by M. J. Packer*

## Survey Results

*Continued from page 2*

Residents seemed aware that many things could contribute to pollution; however, they seemed less aware that they might personally be contributing to the pollution through their own actions. Over one-half (51%) of the respondents replied that the lakes, streams, or wetlands in the watershed were either somewhat polluted or very polluted. Yet, only 23% of the respondents felt that the waters near their homes were polluted.

*Funding for the research came from the Vermont Community Fund, the National Fish and Wildlife Foundation, and the Lake Champlain Basin Program with in-kind contributions from UVM Sea Grant Program and Syracuse University.*

## Watershed

*Continued from page 1*

commissions, and held community meetings to try to reach as many residents as possible. We also have a web page that is easily accessible and provides email addresses to contact any of us with your thoughts. Our newsletters, updates, and press releases offer updated information and opportunities for public participation. We will continue to hold local meetings, and encourage as much public participation as possible.

To achieve maximum success, this ongoing work needs your help! Are we reaching everyone who wants the chance to talk to us to share concerns, thoughts, and ideas? Does your town have an organization we can talk to—local conservation commissions or riverwatch groups, garden clubs, women's clubs, Rotary, etc. who would be interested in visiting with us or receiving a newsletter? Let us know—we are anxious to meet and share ideas with people who genuinely care about our local watershed and will undoubtedly have exciting new ideas and thoughts for us.

**Marli Rupe**
Poultney Mettowee Natural Resources Conservation District

**Joe Driscoll**
Washington County Soil and Water Conservation District

# Riparian Natural Communities Restoration in the Watershed

## Poultney Watershed Assessment

How do we choose sites for restoration? The first and most important criterion is interest and willingness by the private landowner. But what happens if there are many willing landowners, in fact more landowners wishing to participate in a restoration cost-share program then there is project money to go around? This is the reality in a world of limited public and private restoration dollars.

Setting restoration priorities was the driving force behind the EPA-funded research project called *A Wetland and Riparian Habitat Assessment of the Poultney River Watershed in NY and VT*. The Nature Conservancy's Southern Lake Champlain Valley office in West Haven, VT coordinated the project and three Green Mountain College professors Jim Graves, John Field, and Kathy Doyle, along with their students conducted the research in the summer of 2000 and 2001. Three techniques used in the assessment were a visual assessment of river condition; a vegetative study of wetland and riparian natural communities; and a fluvial geomorphological assessment of several representative sections of the river. Due to limited funds, the assessments included only the mainstems of the Poultney, Castleton, and Hubbardton Rivers. Several sites ranked high for restoration need.

## Hubbardton River Ranks High

The mainstem of the Hubbardton River ranked high due to the presence of a rare natural community (Valley Clayplain Forest), fine clay soils (resulting in fine sediment inputs), the area's large scale, and high landowner support in a very visible farming community. The Partners for Fish and Wildlife Program (USFWS) and Rutland County NRCS, with financial assistance from The Nature Conservancy, have helped several farms cover most of the cost of fencing livestock out of the Hubbardton River and its sensitive river bank habitats. While this work helps to improve water quality, the next step is to work with willing landowners to re-plant riverbank habitats with native plant species grown from local seed sources. *(See related story page 10.)*

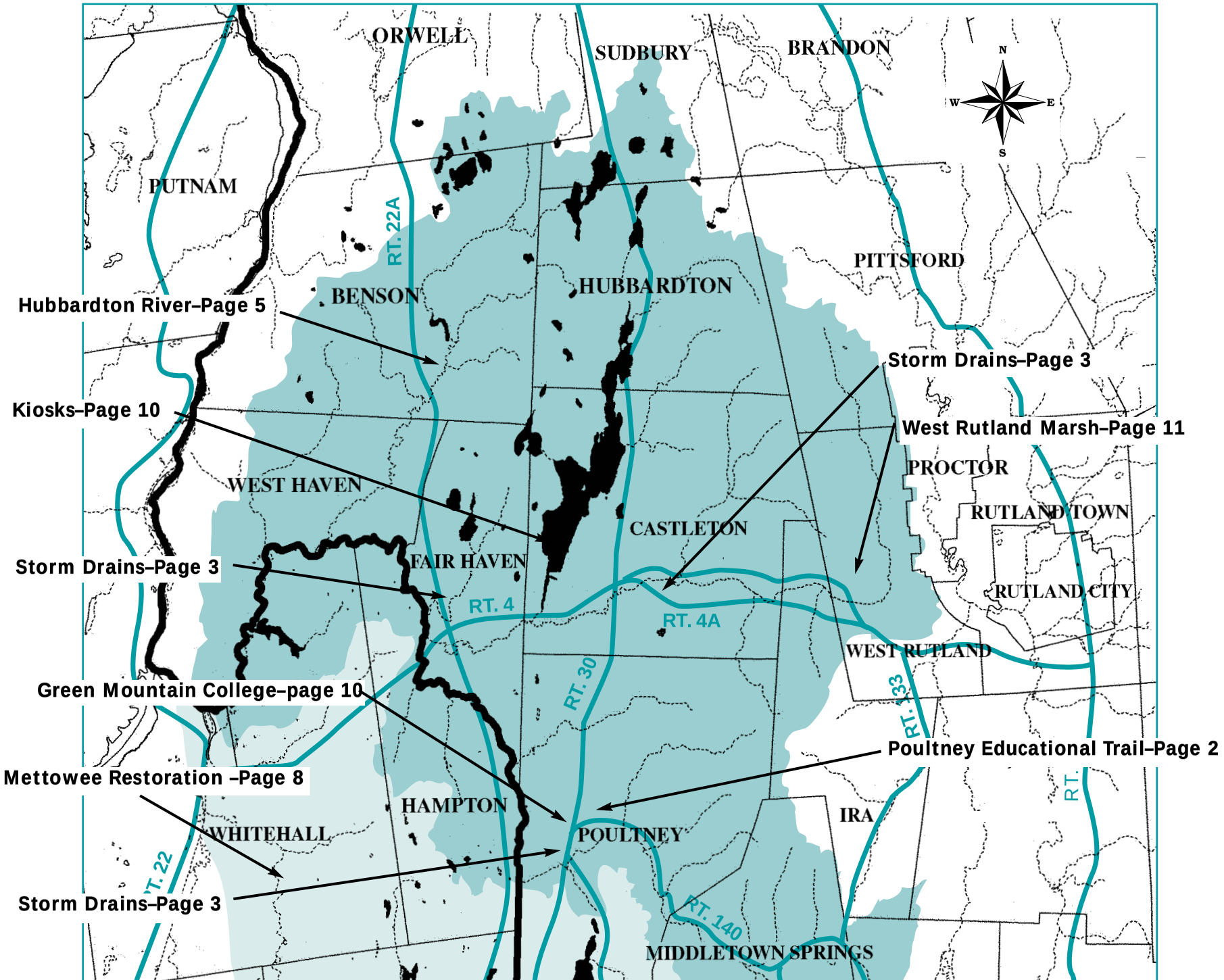
Native species have evolved in our watershed over thousands of years and are extremely well adapted to local soils, climate, and native insects. Non-native species are often invasive, typically out-competing our native species. Species such as bush honeysuckle, barberry, buckthorn, and Japanese knotweed will take over riparian habitats, leaving no room for native species. This ripples through the whole ecosystem as food sources for native insect populations and native birds diminish or disappear.

# Champlain Valley Clayplain Forest—What Is It?

The Champlain Valley is a flat, low-lying basin bounded by mountains to the east and west, defined by its physiography, soils, and climate as well as by its vegetation types and animal populations. It has the warmest climate in Vermont, with a growing season of up to 150 days. When Lake Champlain was a shallow sea, thick deposits of silts and clays were gradually laid down forming the extensive clay soils we see today. These specific environmental conditions resulted in the Champlain Valley clayplain forests. These natural communities occur nowhere else in Vermont and are currently not described from similar glacial lake plain soils of the Great Lakes Region. The diverse clayplain forest includes species such as white, swamp white, bur, and red oaks, red and sugar maple, shagbark hickory, white and green ash, American elm, white pine, and hemlock.

The clayplain soils are prized agricultural land because of their high fertility and general lack of stones. By 1850, most of the clayplain soils were cleared of trees and it is estimated that less than 1% of the original Champlain Valley clayplain forest exists today in fragmented lots of less than 100 acres. You can help by learning more about the clayplain forests, especially if you own land with valley clay soils. Consider planting clayplain forest-species on part or all of your clay soils. Call USFWS Partners for Fish and Wildlife at (802) 951-6313 or the Rutland County office of the USDA Natural Resources Conservation Service at 775-8034 for more information.

*From* Champlain Valley Clayplain Forests of Vermont, *published by the Vermont Nongame and Natural Heritage Program, Vt. Fish and Wildlife Dept., Waterbury. (802) 241-3716.*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Hubbardton River–Page 5
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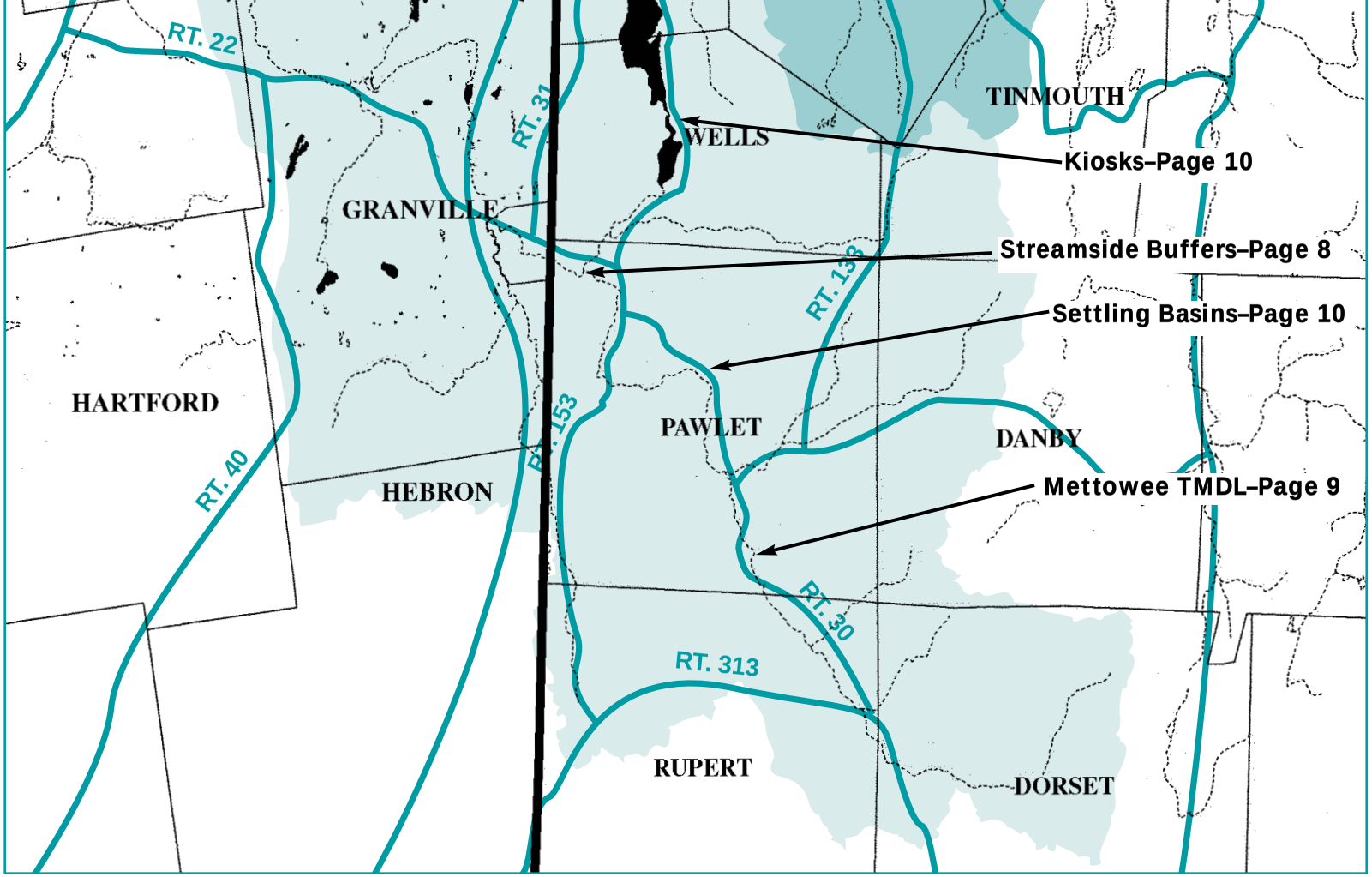


Poultney River Drainage Basin

Mettowee River Drainage Basin

# Watershed Facts

- Acres in watershed–238,976
- Watershed acres New York–53,888
- Watershed acres Vermont–185,088
- Poultney River watershed drains a land area of 236 square miles
- Total length of Poultney River about 40 miles
- Mettowee River watershed drains a land area of 211 square miles
- Total length of Mettowee River about 32 miles
- New York towns–5
- Vermont towns–18
- Watershed population–29,727 (1990 US Census Data)
- New York population–10,668
- Vermont population–19,059

This, and other full-size maps of the Watershed, were prepared for the Partnership by the Rutland Regional Planning Commission with assistance from the Washington County Planning Department, Bennington County Regional Planning Commission, The Nature Conservancy, and USDA Natural Resources Conservation Service.

# Streamside and Lakeshore Buffers

**A group of volunteers turn out during Vermont Fish and Wildlife's Working for Wildlife Day to plant willows along the Mettowee River. Approximately 5,000 rooted willow cuttings were donated to the Partnership to be planted along the Poultney and Mettowee Rivers to help form streamside buffers. Willows were also planted at several other locations in the watershed to help stabilize eroding streambanks.** *Photo by Joel Flewelling*

A buffer is a band of protective vegetation along a body of water, such as trees, shrubs, and tall, coarse grasses that literally "buffer" the riverbanks and the water from harmful runoff. The materials in runoff may consist of eroded soil and pollutants that come from roads, parking lots, lawns, gardens, fields and pastures, and cleared land. All of these pollutants are called non-point source pollution because they don't come from one particular source.

Buffers help streams and lakes in many ways. The roots of plants hold the soil in place, stabilizing riverbanks and shorelines. They absorb runoff and filter out nutrients like nitrogen and phosphorus before they enter the water. Vegetation helps to slow flood water, preventing erosion and trapping sediments. Streamside buffers shade the water, keeping it cool for trout and other cold water species.

Buffers also act as travel corridors, allowing animals to move freely with protection. Birds nest in buffers, as they are great "edge" areas where different habitat types come together. Tree roots and fallen trees provide fish habitat in streams while leaves and other organic materials that fall into the water provide food for microorganisms at the bottom of the food chain. And, trees and shrubs along lakeshores help to filter out noise from the lake and provide privacy for residents.

To establish a buffer, use native species as they are already adapted to the environment and have a better survival rate. Some native shrubs in our watershed include American hazelnut, red-osier dogwood, highbush blueberry and nannyberry. Native trees include red maple, shadbush, paper birch, white pine and red oak.

*More information about buffers and native species is available at the Watershed Partnership office and through VT DEC.*

# Mettowee Riparian Restoration Project

Using funding from the New York State Bond Act, the New York Mettowee Riparian Restoration Project is underway on four sites. More sites will be added as assessments identify needs. Project leadership is by, Washington County Soil and Water Conservation District, one of the members of the Partnership. Since the project has begun, over 1,000 feet of the Mettowee's riverbanks have been stabilized; and nearly ? mile of riparian buffer has been established.

One of the Mettowee Riparian Restoration Projects completed in 2001 took place on the property of Whitehall farmer, John Ayers. In this project, a 150 foot buffer strip was established through the introduction of permanent grass-legume sod and the planting of over 50 Redosier dogwood shrubs in a 25-foot wide area adjacent to the river. Funding for the high quality, four-foot size plantings was furnished by a grant to the Partnership from the National Fish and Wildlife Foundation. These larger plantings are expected to withstand the spring flooding along the river and help to hold the banks in place against further washout or erosion.

Ayers was selected as Washington County, New York's *Outstanding Conservation Farmer of the Year* in 2001. He received this recognition for his work in setting up a rotational grazing system, access road, and watering facility for his dairy herd and for a planned project to raise replacement heifers for neighboring farmers. Ayers was happy to participate in the Mettowee Riparian Restoration Project. He said, "the project protects my more productive cropland and it helps prevent further degradation of the river."

# Mettowee River Temperature Study

### Data Collection

The summer of 2001 was very cooperative with regard to data collection and environmental conditions. The hot and dry weather during data collection should be beneficial in calibrating the temperature model, as it predicts upper limit temperature conditions in the river. During August and September, ENSR, a water quality assessment firm contracted by the Vermont Department of Environmental Conservation (VT DEC), conducted a number of field data collections. They placed 10 in-stream temperature sensors throughout the length of the Mettowee River Valley in Vermont that recorded hourly temperatures. Other data collection included physical and chemical water quality parameters, riparian vegetation condition, flow, and channel morphology. A weather station was erected in the watershed to supply local weather conditions to support the modeling effort. Maximum temperatures observed in the river during the summer of 2001 were in excess of 82º F.

### Next Steps

ENSR is now developing a target temperature criterion based on the fish species previously known to inhabit the Mettowee. This criterion development will result in a technically defensible target value to be applied in evaluating modeling results and alternative TMDL allocation alternatives (see sidebar).

Over the course of the winter, ENSR will develop the selected temperature model and calibrate it to best emulate the conditions observed in the river. Once the model is calibrated, various scenarios can be "run" to determine the result on water temperature in the river. These scenarios might answer questions such as, "What changes might need to occur to prevent the maximum temperature criteria from being reached on a regular basis?" or, "Under ideal conditions, what types of temperatures might one expect to see?" The results will help direct the on-the-ground actions needed to best protect the river.

By early spring, ENSR will prepare specific recommendations for actions and submit a final report to VT DEC. It is anticipated that several meetings will be held to both present the results of the project and to receive comments.

## What is a TMDL?

TMDL, or Total Maximum Daily Load, is defined as the maximum amount of pollution that a waterbody can assimilate without violating state water quality standards. The Clean Water Act of 1972 mandated the setting of TMDLs, when the view of pollutants was basically limited to sewage pipes, or point sources. We now know that pollution comes from a variety of sources and activities — diffuse sources that can include run-off, leaking underground storage tanks, unconfined aquifers, septic systems, stream channel alteration, and damage to a riparian area.

States set TMDLs to:

- identify waters that do not meet water quality standards and the particular pollutants involved
- prioritize waters that do not meet standards for TMDL development, and
- establish the amount of pollutant that needs to be reduced and assign responsibility.

After setting a TMDL, the state develops a strategy to reduce pollution and assess progress. At this time, a watershed partnership may want to be involved in this process to have their plans incorporated in the state's strategy.

## VTDEC Basin Planning *Continued from page 1*

potential causes and sources of pollution that could impair surface waters in the basin. A strategy must then be developed to improve or restore those waters. Although this strategic plan will reflect conditions throughout the entire watershed, it will also consider approved municipal and regional plans adopted under 24 V.S.A., Chapter 117. VT DEC welcomes additional involvement, feedback, and questions in this on-going process.

The VT DEC watershed planners are obligated to coordinate and cooperate with the Commissioner of the Department of Agriculture, Food, and Markets, as provided for in 6 V.S.A., Chapter 215, regarding the agricultural nonpoint source waste components of each basin plan. In addition, basin plans shall identify strategies, where necessary, to allocate levels of pollution between different sources (such as have been identified in urban, residential, and agricultural nonpoint source pollution).

VT DEC's Poultney Mettowee Basin Plan shall also be developed in accordance with the Clean Water Act of 1972. The Clean Water Act identifies the management agencies that carry out the plan, including financing, time needed for implementation, and the social, economic, and environmental impact of the plan in accordance with Section 208 (b)(2)(E) of the Act. Although federal, state, and regional resources will be solicited to implement the strategies in the Plan, it will continue to be a publicly driven process.

# Other Projects in the Watershed

## Informational Kiosks

Interpretive signs will be created to increase public awareness at river and lake access areas in the Poultney-Mettowee watershed and promote eco-tourism in the region. The signs will provide natural, cultural, and historic resource interpretation. The educational value of these signs may also help to control aquatic nuisance species, increase knowledge of streambank stabilization practices, and modify public attitudes and behaviors about water quality.

Evaluation of potential sites for interpretive signage and prioritization of sites will be based on a detailed list of criteria with funding from the Champlain Basin Program. A minimum of ten signs will be designed and created that will either be general orientation signs, theme-oriented signs relating to the natural resources or conditions at each location, or a combination of the two.

## Native Plant Nursery

Through a National Fish and Wildlife Foundation grant, the Partnership will fund the first year of a small native plant nursery for growing native clyplain species from seeds and cuttings collected in the local area. This stock will be available for plantings in the Watershed and offer the best chance for successful restoration of a native natural community, not just stream bank stabilization. The Nature Conservancy's Southern Lake Champlain Valley office will coordinate the project. The Nature Conservancy welcomes assistance in collecting native seeds or cuttings, and helping out in the native plant nursery. *To volunteer please contact the office at (802) 265-8645 and ask for Mary Droege or Sherry Crawford. If you are a landowner and would like further information about restoration opportunities, please call the Partnership office.*

## GMC Watershed Class

The Partnership will soon gain valuable assessment information from a Green Mountain College course on watershed planning, taught by Dr. Rebecca Purdom. Twenty-five students are learning about the legal aspects of basin planning as well as the practical, real-world concerns that affect communities and the environmental health of the watershed. As a final project, students will do in-depth theses on such potentially controversial subjects as wetland management, river gravel removal, buffers, and invasive species. Students will interview at least 15 people about each subject. These theses will evaluate each subject from all sides, present an overall summary, and offer specific recommendations, if appropriate. Dr. Purdom received grant funding to help publish these papers and make them available to the Partnership and town planning commissions.

## New Practices in Road Maintenance Lead to Cleaner Rivers

The Town of Pawlet road crew recently installed two settling basins on Waite Hill Road; and the Granville crew installed two others further downstream near the Mettowee River on the Middle Turnpike Road. Settling basins are precast concrete structures designed to catch silt and sand running off roads before it reaches nearby rivers or streams. Left unchecked, this erosion causes water pollution, called sedimentation. The gravel that gets caught in basins can then be cleaned out and reused for road surfacing–with the potential of saving road maintenance budgets. The town can correct roadside erosion and address river sedimentation, simultaneously. According to Joel Flewelling, project manager from the Partnership, these two basins are the first to be installed in Vermont. The Cornell Cooperative Extension and a conservation district in central New York helped plan the project and the road crews worked out the installation as they went. Flewelling says he is "very happy with both crews' work." If these basins work as expected, four more will be installed where other gravel roads drain to the Mettowee River in other watershed communities. Funding came from the National Fish and Wildlife Foundation, Lake Champlain Basin Program, and the Vermont Better Back Roads Program; with in-kind support from the towns of Pawlet and Granville.

**One of the settling basins recently installed on Waite Hill Road in Pawlet to reduce the amount of sediment running into the nearby Mettowee River.** *Photo by Joel Flewelling*

# Other Projects in the Watershed

## Lakes Region Free Press Series

The publisher of the Lakes Region Free Press contributed space to the Partnership for a 15-part weekly column series in July, August, and September. Every week the Partnership wrote and had published a 400 word story and photo about an issue, project or accomplishment of the Partnership or one of the partners. As a result of the series, a number of new projects were identified and many members of the public were given information about things they could do on their property to make a difference in the quality of the watershed.

## West Rutland Marsh Educational Boardwalk

Planning is underway in the West Rutland Marsh for a new 150-foot boardwalk project. The town of West Rutland has secured landowner support. Materials for the boardwalk have been purchased through a grant to the Lake Champlain Birding Trail by the Lake Champlain Basin Program. Birding in the marsh is some of the best in the basin according to local Audubon experts. Other projects being planned for the marsh include obtaining conservation easements and installing fencing through USDA-NRCS administered grants to keep livestock out of the marsh and brooks that drain to the marsh.

## UVM Youth Volunteer Grant Project

Recognizing a need for a volunteer base to assist in on-the-ground projects, the PMNRCD began working with the University of Vermont Sea Grant Program to help educate youth volunteers, their families, and communities about environmental issues. The Youth Volunteer Grant program, with the help of an intern from Green Mountain College, will analyze current community service projects in schools and youth organizations; determine projects that need volunteers; provide educational materials and curriculum for teachers and facilitators; and coordinate volunteer opportunities for youth. Projects could include plantings for river stabilization, maintaining a town educational trail, river cleanups, or fence building. The goal is to ensure that volunteer labor gains an understanding of their project and the satisfaction of helping their local community. The PMNRCD is also considering a weeklong summer program for youth environmental volunteers, similar to the successful Vermont Youth Corps but for younger community residents.

## Exotic Plants Monitoring and Control

The Vermont Youth Corps crew completed a streambank clean up along the Poultney River, pulling invasive water chestnuts with The Nature Conservancy on Lake Champlain near Benson, and removing black swallowart plants from roadsides in Castleton. Funding for the crew time was provided by the National Fish and Wildlife Foundation.

## Small Forests Are A Big Deal

The Vermont Backyard Forest Stewardship Program helps small non-industrial forest landowners who live in Rutland County, own less than 25 acres, and want advice to promote wildlife, increase biodiversity, combat invasive species, and grow timber. The Program offers free technical assistance for ecologically sound land stewardship plans, educational workshops, and a quarterly newsletter. No question is too small and no project is too large. Small landowners are an integral part of the overall landscape and their management activities have a profound impact on the natural communities in neighboring forests, meadows, streams, and lakes. *For more information call George Tucker at 773-5738 or email george.tucker@vacd.org.*

The mission of the Poultney Mettowee Watershed Partnership is to bring together the efforts of citizens and organizations that share the common vision of conserving, protecting, and enhancing the natural and cultural resources of the watershed. The Partnership is a unique two-state collaborative working to foster cooperation between natural resources conservation and agricultural organizations in the Watershed along with accomplishing on-the-ground projects through recruiting volunteers and obtaining funding for equipment, supplies and materials.

The goals of the Partnership are to:

- Enhance and interpret wildlife populations and habitats and other natural resources.
- Maintain a healthy agricultural based economy while protecting, restoring, and conserving the soil and water resources of agricultural lands.
- Educate youth, educators, adults, residents, and visitors about conservation practices and the environment.
- Maintain and enhance agricultural and nature-based recreation opportunities.

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**Email watershed@gwriters.com**
**Visit the Watershed Partnership web site, hosted by Vermont Association of Conservation Districts: www.vacd.org/pmnrcd**



**Poultney Mettowee Watershed Partnership**
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