

## NO STEP IS TOO SMALL.

The Batten Kill in its Dorset Marsh headwaters is just a rivulet.

Do you want to get started? Do you want to be a Batten Kill River Steward? Here's how!

### YARD & GARDEN

If you have a yard or garden, and especially if you live near a stream in the watershed or on the Batten Kill, the pesticides and fertilizers you use may have an effect on water quality. Some pesticides can harm desirable aquatic organisms. Fertilizers high in nitrogen (the first number in the fertilizer formula, as in 30-10-10) can contaminate groundwater. Fertilizers high in phosphorus (the second number in the fertilizer formula) can increase the growth of algae and other weeds in the river, and harm fish and other aquatic organisms.



#### What can you do?

- Use all fertilizers sparingly, and try to use phosphorus-free fertilizers. (Most yards don't need additional phosphorus anyway.)
- When spreading fertilizers, keep them off paved driveways and sidewalks, where they're more likely to be carried away in stormwater runoff – into the drain or ditch, and from there into your river.
- Return your fertilizer investment to your lawn: leave grass clippings in place.
- Don't mow the lawn to the streambank. Leave a buffer of deeply rooted perennial vegetation such as trees or shrubs to help keep the banks erosion-free and stable.
- Use pesticides sparingly and only as indicated on the label.



Sonja Jaffee with her grandson, Samuel, by the Green River which flows through her conserved property in Sandgate.

#### Need More Information?

Let one of the Watershed Partners know you'd like to learn how to manage your yard or garden to protect local surface waters. You'll be directed to websites such as that of the state's Clean and Clear program ([www.anr.state.vt.us/cleanandclear](http://www.anr.state.vt.us/cleanandclear)) or to organizations such as the Master Gardeners.

## AGRICULTURAL & FORESTED LANDS

Small farm and forest landowners can be leaders in protecting water quality in the Batten Kill watershed, whether your land is located along headwater streams or on valley floors.

#### What can you do?

- Keep animals and the wastes they produce far from streams.
- Don't let runoff from your barnyard or your manure piles reach your watercourses.
- Provide plenty of space for your pastured animals or move them from pasture to pasture to prevent overgrazing and the mud that results.
- Leave a wide strip of woody perennial vegetation between fields and watercourses. It will capture sediment-laden runoff before it reaches the stream.
- Harvest trees when soils are dry or frozen.
- Plan your access roads to minimize erosion. Keep stream crossings to a minimum and use bridges or culverts (not fords) if possible. Keep road slopes gradual. Use water bars!
- Minimize disturbance of the forest floor. Reseed and replant areas disturbed by logging.
- Don't contaminate soils with fuels, lubricants, or other chemicals.
- Maintain shade along all streams. Leave fallen trees in the stream to provide food and cover for fish and other animals.

#### Need More Information?

The Agricultural Resource Specialist (ARS) for southern Vermont, the Soil Conservationist for the Natural Resources Conservation Service (NRCS), and the County Forester can help with water quality questions on your farm or forest and in some cases provide planning and financial assistance. The ARS also helps farmers comply with Accepted Agricultural Practices, and the County Forester helps landowners and loggers comply with Accepted Management Practices. (The AAPs and the AMPs are the law in Vermont.)



Mark (l) and Mike Lourie of Rupert Valley Holsteins have planted buffers on their farm on Mill Brook and White Creek.



*We hope for clean water in quantities sufficient to sustain flourishing native plant and animal communities and vibrant town and rural economies. We envision wild and working landscapes of extraordinary beauty and productivity. We understand it is our responsibility and that of all those who live in or love this watershed to realize this vision, and we welcome that responsibility.*

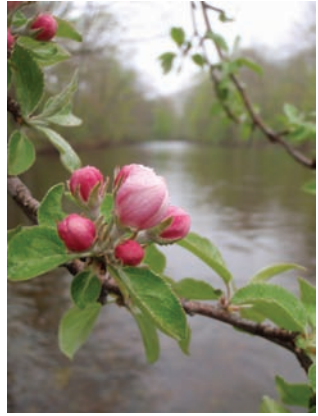
– Basin 1 Watershed Council draft vision statement

## BETTER STREAMSIDE BUFFERS

Planting and expanding vegetated zones, or buffers, on both sides of the river is one of the least expensive, most effective tools available to restore and protect the Batten Kill and its tributary streams.

#### Why?

- Streamside buffers reduce erosion by keeping banks stable.
- Streamside buffers trap sediments before they enter a stream.
- Streamside buffers improve and protect both aquatic and terrestrial habitat – by keeping streams shaded and cool, by providing food for aquatic organisms in the form of leaf litter, and by creating shelter and cover for fish and other animals as tree stems and branches fall into the water.



#### What can you do?

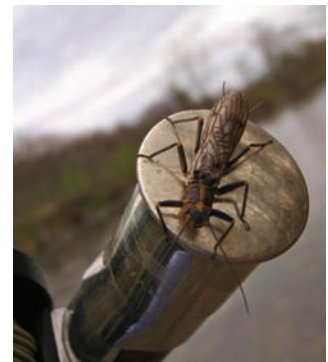
Several programs exist to provide plants, planting assistance, and in some cases cash payments to plant or expand streamside buffer zones. The first step is as simple as letting one of the Watershed Partners know you are interested in planting buffers along your river, stream or wetland.

## AQUATIC HABITAT RESTORATION

Recent studies of the potential causes of a precipitous decline in the brown trout population in the Kill conclude the drop in numbers is probably due to inadequate in-stream cover. Using native materials such as whole trees and boulders, the Watershed Partners work with willing landowners to narrow the channel and deepen pools, create safe feeding sites for fish in and at the edges of the channel, encourage healthy macroinvertebrate populations, increase the retention of coarse woody debris and other organic materials, and plant buffer zones. To date, aquatic habitat has been restored on more than a mile and a half of river belonging to nearly twenty property owners – at no cost to them.

#### What can you do?

Sometimes the best course is to do nothing. Preserve existing wooded buffers. (Don't mow or hay to the edge of the stream.) Should trees fall into the river, leave them there (unless they threaten the stability of your bank). For those wanting to be more pro-active in restoring in-stream aquatic habitat on their stretch of the river, contact any of the Watershed Partners. We'll arrange a site visit and work with you to produce a restoration plan.



## VOLUNTARY LAND PROTECTION AGREEMENTS

Hundreds of acres of land in the Batten Kill watershed have been protected by watershed landowners, either temporarily through the use of NRCS incentive programs, or permanently through river corridor easements, conservation easements, and the transfer of ownership through sale or gift to conservation organizations.



## NRCS Programs

The NRCS's Wildlife Habitat Incentive Program or WHIP has been used by many landowners to help fund habitat restoration projects on the river. Riparian landowners agree to passively maintain improvements such as riparian buffers and in-stream large woody debris installations for a period of several years. In exchange, WHIP provides funding, which in turn is matched by contributions from other partners.

The Conservation Reserve Program will pay a rental fee over the course of a multi-year contract to eligible farmers who create perennial vegetated buffers along their streams and rivers. In some cases, the State's Agency of Agriculture will also contribute funds.

The Wetland Reserve Program can help pay to restore wetlands on eligible properties, and purchase easements on them to keep them out of agricultural production temporarily or permanently.

## River Corridor Easements

The river corridor easement is a new tool on the Batten Kill. The easement, a voluntary agreement between a landowner and a qualified conservation organization, permanently prohibits manipulating the watercourse and its adjacent buffer zone. Traditionally, landowners have had the right, with some restrictions, to control erosion – by rip-rapping, dredging, or berming. Again and again, however, these measures fail, with consequences up and downstream. By avoiding rather than reacting to flood damages, the river corridor easement results in lower long term costs for all. The value of the easement depends on the area it encompasses, landowner interests, and the dynamics of the river. A landowner may sell or donate the easement in whole or in part.

## Conservation Easements

Dozens of parcels of land in the Batten Kill watershed have been permanently protected, yet kept in private ownership, by property owners who voluntarily sold or donated a permanent conservation easement to a land trust or other qualified conservation organization. Such easements typically permit uses such as farming or forestry, but limit or prohibit industrial, commercial and residential development. When donated, the easement can provide the landowner substantial income tax savings. Alternatively, some individuals may choose to reduce heir's estate taxes by directing in their will that their property be conserved or gifted to a land trust. In other cases, landowners can benefit by permanently conserving their land by bargain sale or gift to a conservation organization or municipality, under terms of use agreed to by all parties. Uses might include public recreation, educational facilities, fishing access, and others.



Bill and Joan Lesko of Twin Rivers Farm in W. Arlington have improved stream habitat on more than a half-mile of river.

## What can you do?

To learn more about voluntary land conservation programs, contact the River Management Program's Assessment Scientist, the Natural Resources Conservation Service Soil Conservationist, or the Vermont Land Trust's regional director.

## WHO YOU GONNA' CALL? A WATERSHED PARTNER!

A number of organizations are involved in efforts to protect and enhance the Batten Kill watershed. They include:

### Battenkill Watershed Alliance

Cynthia Browning, Executive Director  
802-375-9019 • [www.battenkillalliance.org](http://www.battenkillalliance.org)  
(The BKWA is a good place to start with any Batten Kill question.)

### Bennington County Conservation District

Shelly Stiles, District Manager  
802-442-2275 • [www.bccdvt.org](http://www.bccdvt.org)  
(BCCD is a good place to start with any Batten Kill question.)

### Bennington County Regional Commission

Jim Henderson, GIS Planner  
802-442-0713 • [www.rpc.bennington.vt.us](http://www.rpc.bennington.vt.us)  
(BCRC can help with questions regarding municipal laws and policies.)

### Green Mountain National Forest

Steve Roy, Natural Resources Staff Officer  
802-747-6700  
[www.fs.fed.us/r9/forests/greenmountain](http://www.fs.fed.us/r9/forests/greenmountain)  
(GMNF specializes in fisheries restoration in the Batten Kill watershed.)

### Manchester Community Land Trust

Lee Krohn  
802-362-4824  
(MCLT can help with land protection questions for properties in Manchester.)

### Southwestern Vermont Trout Unlimited

[www.tuswvt.org/index.shtml](http://www.tuswvt.org/index.shtml)  
(SWVTTU is the place to go with angling questions.)

### USDA Natural Resources Conservation Service

Steven Pytlik, Soil Conservationist  
802-775-8034 x18 • [www.vt.nrcs.usda.gov](http://www.vt.nrcs.usda.gov)  
(NRCS can help with a number of programs that share the costs of buffer plantings, wildlife habitat projects, and a variety of conservation projects on the farm or forest.)

### Vermont Agency of Agriculture, Food and Markets

Sylvia Harris, Agricultural Resource Specialist  
802 254-5323 x 105  
[www.vermontagriculture.com/index.htm](http://www.vermontagriculture.com/index.htm)  
(VAAFV can help with AAP questions.)

### Vermont Department of Environmental Conservation

Shannon Pytlik, Assessment Scientist  
892-786-2501 • [www.vtwaterquality.org/rivers.htm](http://www.vtwaterquality.org/rivers.htm)  
(The VT DEC River Management Program can help with questions regarding river corridor easements.)

### Vermont Department of Fish & Wildlife

Ken Cox, Fisheries Biologist  
802-885-8855 • [www.vtfishandwildlife.com](http://www.vtfishandwildlife.com)  
(VT F&W specializes in fisheries restoration in the Batten Kill watershed.)

### Vermont Department of Forests, Parks and Recreation

Nate Fice, County Forester  
802-375-1217 • [www.vtfrp.org](http://www.vtfrp.org)  
(VT FP&R can help with AMP questions and all questions regarding the Use Value law.)

### Vermont Land Trust

Donald Campbell, Regional Director,  
Southwest and Mettowee Valley  
802-442-4915 • [www.vlt.org](http://www.vlt.org)  
(VLT can help with land protection questions.)

### Battenkill Watershed Municipalities

Arlington Town Clerk: 802-375-2332  
Dorset Town Clerk: 802-362-1178  
Manchester Town Clerk: 802-362-1315  
Manchester Village Clerk: 802-362-1515  
Peru Town Clerk: 802-824-3065  
Rupert Town Clerk: 802-394-7728  
Sandgate Town Clerk: 802-375-9075  
Shaftsbury Town Clerk: 802-442-4038  
Sunderland Town Clerk: 802-375-6106  
Winhall Town Clerk: 802-297-2122



Photos by Peter K. Bellamy

# BE A BATTEN KILL RIVER STEWARD

Here's an idea for a beginning. It could be us, doing what we can to protect and improve the Batten Kill and its tributaries as they run near or through our own backyards, our own farms and forests, our own towns and villages.



*I heard it first... the sound of running water. On the southern edge of the pool was an opening, where the water was moving into a narrow channel. It was a subtle beginning, unrevealing of the size and magnitude the river achieves down in the valley. Beginnings are often subtle. But I knew how the river tumbles down the mountainside, crashing down and through the thick marble bedrock, growing stronger and stronger as it collects more water and widens at its base to become the glorious and impressive run of water known as the Batten Kill.*

– From the journal of Monique Monteverde, former Bennington County Conservation District Batten Kill River Steward, describing the Dorset Marsh

PROTECT and PRESERVE the BATTEN KILL for tomorrow through individual actions today.