

The Batten Kill Watershed Alliance



Coordinating, educating, and promoting stewardship for the benefit of the Batten Kill Watershed in New York and Vermont.

Strategic Planning for River Restoration Work

The Alliance’s Board of Directors is developing a strategic plan for habitat restoration in as much of the watershed as is possible as quickly as possible. We have enjoyed considerable success implementing projects, but our goal is to take on multiple projects at once. The Alliance needs to pursue large dollar grants to extend our activities over longer stretches of the river in both states. We need matching funds in order to draw on the pool of available USFS Green Mountain National Forest financing. We are evaluating a series of half mile stretches of the Batten Kill for installation of cover and shelter structures and improvement of natural river dynamics over the next several years. We try to look for areas in which access to flood plains can be enhanced or a

tributary can be improved as well. Some degree of public access to the project site is also a consideration.

You can be an important part of this extraordinary initiative to improve the fishery habitat and the natural river dynamics of the Batten Kill watershed. This is an investment in the productivity of this precious natural resource. Our projects restore the habitat, improve the stability of the river, protect public infrastructure, and protect private property from erosion. Visit our website at www.battenkillalliance.org for details and photos of some of our past projects.

Notice of Annual Meeting

Please join us Tuesday, August 19th, at the Batten Kill Watershed Alliance Annual Meeting for a special presentation by VT State Representative David Deen. The meeting will be held at the Equinox Hotel, on Route 7A in Manchester Village, VT. The meeting will begin at 7PM and will be held in the Batten Kill Room (of course!)

Refreshments will be served and the meeting is open to all members of the BKWA as well as the general public. In addition to the special presentation by Rep. Dean, the meeting will feature board member elections.

Representative Dean is a fly fishing guide and river steward on the Connecticut River and currently serves as chairman of the House Fish and Wildlife Committee. He will be giving us the benefit of his experience in both environments.

Seeking new BKWA Board Members! If you are interested in becoming more involved in the issues affecting our watershed, please contact any one of the board members, join us at any regularly scheduled monthly board meeting, or stop by and talk to us at the annual meeting. The BKWA is a 501(c)(3) organization and is open to all stake-holders in the watershed: land-owners, floaters, anglers, conservationists, farmers, and concerned citizens. If you have something to say, we’d like to hear from you.

River Stewards in New York and Vermont

The Alliance is again sponsoring River Stewards on the Batten Kill this summer. The Stewards are local young adults familiar with the river, its wildlife, and habitat. They are collecting data on river use and its impact on the river’s environment. This year they have the additional duty of testing the river and its tributaries for the presence of didymo - an invasive algae first detected in VT and NY in 2007. Preventing the further spread of this species is a priority for all river users. The Towns of Arlington and Manchester received a grant from the VT Water Quality program to assist in this work and the Alliance will carry out the program with the assistance of the River Stewards. In general, all river users are encouraged to practice good river hygiene by removing any visible vegetation from boating and fishing equipment and to wash equipment (including boats and rafts), clothing, and shoes (including waders, boots and fishing gear) in hot soapy water when leaving the river (and especially before entering another body of water.) For more information on what you can do to prevent the spread of didymo, contact the VT Water Quality Division at # 802.241.3777 or online at www.vtwaterquality.org.



The river stewards are gathering data on river use (and mis-use.)

You can find the River Stewards’ weekly river reports on the BKWA website.

Foster Farm Bank Stabilization Project, Shushan, NY

In New York, Carl Schwartz and Mark Rinehart of the US Fish and Wildlife Service completed three different bank stabilization projects at this farm off Highway 64 in Shushan in August 2007. The work will prevent the river from taking a farm field, enhance natural river dynamics to make the riverbed more stable, and improve the fishery by providing supplemental trout habitat. There were two places in which old, malfunctioning streambed structures were removed and replaced with rock vanes and other structures that will function to narrow and deepen the flow and protect the river banks. The third site was very interesting. It was a place where the river was trying to cut off an extended meander (curve) by taking a shortcut across the “neck”.

A river like the Batten Kill dissipates energy and maintains a balance between sediment and water volume and velocity by creating a curving bed with gravel or cobblestone point bars. In order to have stable natural river dynamics the stream needs meanders. Any shortening or straightening disrupts the

river’s balance, creating instability. This can lead to more erosion and further damage to private property and public infrastructure. Therefore a significant structure was installed to preserve the threatened meander and prevent the shortcut. Small tree and bush seedlings were planted at the project sites after the completion of the work. Thank you to **Clearwater Chapter of Trout Unlimited** and **New York State Senator Betty Little** for contributing funding to this project!

This image from Google Maps shows the Foster Farm project site in Shushan, NY. The river was threatening to cut off the meander at the spot marked in red which would have increased the river’s velocity, disrupted the natural river dynamics, and led to further streambank erosion.



Next in New York: Hi-Brow Farm, Jackson, NY

The next project in New York will restore natural river dynamics and improve trout habitat in a significantly damaged half-mile reach of the Batten Kill where the river has created an island and shortened its length significantly. This project is similar to the Foster Farm project in that the river is taking a shortcut across a field, effectively cutting off a meander that is important for sustaining natural river dynamics. The resulting damage includes the loss of approximately forty acres of tillable farmland as well as threatening a downstream railroad bridge. In addition, the river has become over widened and has eliminated a significant amount of habitat for trout and other fishes in this reach.

In this case not only will the river’s shortcut be blocked off and the banks stabilized, but cover and shelter structures will be installed to replace the old dysfunctional bank structures from 40 years ago that are actually causing erosion. The Skellie family, the owners of the farm, will be able to supply some of the trees and rock for the project from their property, which will reduce the costs for the Clearwater Chapter of Trout Unlimited and for the Alliance.

For future years in New York there is thought of beginning the installation of cover and shelter structures close to the state line and working downstream. The goal would be to achieve ex-

tended reaches of improved habitat at various points for several miles on both sides of the border, where there is heavy river use and the fishery was famous in the past.

If you’re interested in the project details, the planned restoration will be completed in phases over several years and will include the following steps:

- Decrease the radius of the turn at the head of the reach. Currently the radius is too steep and will eventually create a new passage if not repaired.
- Install Rosgen type vane above the turn to further decrease the speed of the rate of flow.
- Install a structure to divert the river back to its original channel. This structure will be built to bank full height only to allow the dissipation of energy during flood conditions.
- Install several Rosgen type vanes to far bank to protect this bank from erosion, provide cover and habitat for trout and other fishes as well as further dissipate energy to protect the railroad bridge and other downstream reaches of river.
- Close the downstream opening of the bypass to prevent erosion in this reach. This will be filled to bank full height only.



This image from Google Maps shows the island created by the river’s shortcut in Jackson, NY.



The Batten Kill as it is currently flowing in its abbreviated channel across Hi-Brow Farm.

2008 Electro-Fishing Survey Nets Positive Results Of Habitat Restoration Two Years Running!



On Thursday, July 17, 2008 a team of about 16-18 scientists and technicians from the Vermont Fish and Wildlife Department and the United States Forest Service, Green Mountain National Forest Fisheries and Wildlife Program conducted an electro-fishing survey of two stretches of the Batten Kill where habitat restoration projects are ongoing (the Twin Rivers Farm Project site). A few volunteers from the Southwestern VT Chapter of TU and the BKWA also tagged along for fun, lent a hand and took some photos.

2008 marks the second year, post-restoration, that electro-fishing surveys have been conducted in two stretches of the Twin Rivers Farm project area. In 2007, fisheries biologists measured population increases in excess of **500%** (brook trout) and **700%** (brown trout) in the critical yearling age group (representing mid-sized trout) in the pool habitat portions of the same reach of river. At that time, the scientists explained that they were “cautiously optimistic” that the increases in the trout population in the project area were proof-positive that the years of study and habitat restoration efforts currently underway to restore much needed “cover and shelter” for the trout are beginning to pay off.

If this year’s trout survey numbers hold up (i.e. they’re similar to last year’s numbers), and the habitat-restored stretches of the Batten Kill continue to demonstrate a marked increase in trout-holding capacity in the project stretches (versus a control section which has not had habitat restoration work car-

ried out), then the scientists may have reason to be more than just “cautiously optimistic”, as two years of positive population growth is more likely to mark the beginning of a trend than a single year’s worth of data.

When asked for his thoughts regarding the success of the project, Ken Cox, VT Fish and Wildlife Department fisheries biologist concluded that it is still too early to declare victory, yet wished to recognize “the collective efforts of federal and state agencies, academia, private organizations (such as BKWA & TU), landowners, companies, etc. that have been involved in the effort since it kicked off in 2000. Without the time and funding that has been funneled into the project we would not be where we are now. And to continue making improvements will require sustaining this support from here on.”

We couldn’t have said it better ourselves. So we’ll simply take this opportunity to once again recognize the support of our partners, members, supporters, and volunteers and express our sincere thanks for all your hard work and dedication.

In the meantime, we have a lot of habitat restoration work to do, including the Twin Rivers Farm Upstream Extension Project (see page 5 for details), so stay tuned for updates. And please make sure to renew your Watershed Alliance membership as your contributions are critical to helping us secure matching funding from sources such as the United States Forest Service - Green Mountain National Forest.



Special Announcement on Behalf of the Southwestern VT Chapter of Trout Unlimited

Bamboo Fly Rod Raffle to Benefit Batten Kill Habitat Restoration Work

To support the ongoing habitat restoration work on the Batten Kill, the Southwestern VT Chapter of TU is raffling off a classic bamboo fly rod - an H.L. Leonard Duracane 7' 2/2 for 4 wt rod. Built in the 1970's, this impregnated rod is beautifully finished in the traditional green wraps that Leonards are famous for. Nickel silver ferrules and cap and ring reel seat accent a rod that is attractive to the eye and a delight to cast. To complete the package, this rod comes paired with an Orvis CFO 123 reel - the perfect outfit for a discriminating angler.

This rod and reel were generously donated, so every dollar of every ticket sold will go directly toward Batten Kill habitat restoration work. The Vermont Battenkill is one of the few historic Northeast trout streams with a population of truly wild brown and brook trout. Now you can participate in the effort to make this legendary trout stream even better and you can do it by purchasing a ticket for a legendary bamboo fly rod. All proceeds from this raffle will be donated by SWVTTU to the Batten Kill Watershed Alliance!

This rod/reel is estimated in value at approximately \$1500! At only \$10 per ticket, don't pass up the chance to win this outstanding bamboo fly rod and become a partner in the restoration of one of America's most beautiful wild trout streams!

The winner will be drawn November 11, 2008. You need not be present to win. This wonderful prize (shown below) will be shipped to the lucky winner at no charge.

To purchase raffle tickets by mail, make your check (at \$10 per ticket) payable to:

The Southwestern Vermont Chapter of Trout Unlimited

and mail it to:

The Southwestern Vermont Chapter of Trout Unlimited

Post Office Box 88

Manchester Center, VT 05254

And of course be sure to include your name, telephone number, and street address so we can contact you if your name is drawn as the lucky winner.

For more details, visit the Southwestern Vermont Chapter of Trout Unlimited online at <http://www.SWVTTU.org>.



Is Your Batten Kill Watershed Alliance Membership Up to Date?

Please take this opportunity to renew your Alliance membership by sending a check in the one of the following amounts:

\$30 Individual/Basic Membership | \$50 Family/Supporting Membership

\$100 Business/Sustaining Membership | \$500 Benefactor | \$Other

Your tax-deductible, charitable contribution will be matched by a generous cost-sharing agreement with the United States Forest Service - Green Mountain National Forest, enabling us to continue working toward our mission of "Coordinating, educating, and promoting stewardship for the benefit and enhancement of the Batten Kill watershed in New York and Vermont."

Send your Batten Kill Watershed Alliance renewal membership to:

The Batten Kill Watershed Alliance

PO Box 734

Arlington, VT 05250

Twin Rivers Farm Habitat Restoration Project In Vermont

The Twin Rivers Farm project in Arlington was completed in September 2007, resulting in habitat restoration along a half mile stretch of the river. Cover and shelter structures were installed along the downstream section to the confluence of the Batten Kill and the Green River: 39 rootwad structures and individual cover trees on alternating sides of the riverbed, and 45 slate rock “feeding stations” in the pools. This reach of the river is right next to River Road, which parallels VT Rte 313 West, making it easy to see what was done. The project site is between Benedict Crossing and the Covered Bridge. It was a challenging area in which to work, because on the road side the



Habitat restoration work such as is being done on the Twin Rivers Farm Project requires the coordinated expertise of many, heavy equipment and lots of materials.

road embankment and occasional bedrock formations prevented driving the big tree rootwads into the bank as could be done on the opposite side of the bank where the field is. Scott Wixsom, onsite project manager, USFS - Green Mountain National Forest, opted to use whole trees up to 8 inches in diameter, and anchored these along the bank in places. The treetops provide particularly good shelter for small fish. The slate rock feeding stations for big fish were installed on the bottom in the middle of the pools.

The important news is that the results of the fish census in July 2007 and again in July 2008 (see page 3 for details) along the structures installed in 2006 and 2007 showed big increases in the numbers of small fish compared to the same site in 2005. The small to mid-sized trout have been the part of the fishery that has shown the biggest decline in the past. In one section there was a 600% increase in the numbers of such small fish! And every slate feeding station had a big fish in residence. Ken Cox, Vermont Fish & Wildlife fisheries biologist, has declared himself “cautiously optimistic”. These preliminary results tend to confirm that “Cover and Shelter” is indeed the important missing habitat element for the restoration of the fishery. Anglers also report high numbers of fish in the project area compared to other parts of the river.

Our sincere thanks to all of the Alliance funding and working partners: **The Orvis Company, National Fish & Wildlife Foundation, United States Forest Service - Green Mountain National Forest, Vermont Fish & Wildlife Department, the Bennington County Conservation District, Natural Resource and Conservation Service, and Clearwater and Southwestern Vermont Chapters of Trout Unlimited.** Thank you to **Dr. and Mrs. William Lesko** for allowing us to use their property as the staging and access area, and to all other adjoining landowners for giving permission for the work near their property. Thank you to **Dydo and Company** of Dorset, VT for skilled and careful work in the river. Thank you also to those who helped us get the materials that we needed: **Joe Nolan and Nate Bachiochi of TNB Construction,** contractor **John Thomas** of Poultney, loggers **Dave Hagelberg** and **Keith Squires,** and foresters **Bruce Caler** and **Mark Riley.** And lest we forget, many thanks to the Alliance members whose dues supported this project!

Next In Vermont: Twin Rivers Farm Upstream Extension

In 2008 we will be extending the Twin Rivers Farm habitat restoration project from where we began on Dr. Lesko’s property in West Arlington upstream for another half mile. The fisheries biologists have recommended that it is best to install the cover and shelter along extended contiguous reaches of the river in order to maximize the impact on the trout population, rather than creating small isolated pockets of good habitat. Thanks to the **Trout and Salmon Foundation** and the **Vermont Clean and Clear Program** for supporting the Twin Rivers Farm Extension project.

For the future habitat/cover and shelter projects, we are considering several half-mile reaches above Benedict Crossing and further upstream at the Arlington Recreation Park. We are also looking at moving downstream from the

Green River just below the downstream end of the 2007 Twin Rivers Farm project site. We are simultaneously looking for appropriate opportunities in Manchester and Sunderland.

Now that we have some experience, we hope to be able to reduce project costs in order to make our funding cover as much habitat work as possible. Our biggest problem and greatest expense has proven to be obtaining and transporting the large rootwads that are required for this work. We are hoping to be able to get at least some of the required materials at or near future work-sites in order to reduce such costs.

If you are a landowner and have materials (trees or rock) to donate, and are looking for a way to help the Batten Kill and a great tax-break, let us know!

Batten Kill Watershed Basin Planning (VT)

The Batten Kill is part of the Basin 1 watershed planning effort, coordinated by the Vermont Department of Environmental Conservation, Water Quality Division. The focus of the plan is to make recommendations to address non-point source water quality concerns. The basin planning process empowers people with information and tools to help design recommendations that fit the local community and watershed issues. Basin plans act as a guiding document for the VT Agency of Natural Resource, local nonprofit organizations (such as the BKWA) and other community groups interested in taking steps to protect and restore local waters.

Over the last year Josh Gorman, VT DEC Watershed Coordinator, organized public forums, gathered a long list concerns for water quality, and formed two Watershed Councils to help guide the plan development. One council is for the Batten Kill and one is for the Hoosic and Walloomsac Rivers. Both councils' recommendations will

be combined to form a single Basin 1 plan. The Batten Kill Watershed Council meets monthly. If you are interested in participating please contact Josh Gorman by email at joshua.gorman@state.vt.us or by telephone at #802.447.6501.

NY DEC Habitat Survey

The habitat survey of the Batten Kill in New York began last summer and will continue in 2008. Emily Zollweg of the NY Department of Conservation says that if time and staff are available they will also complete a fishery survey. The DEC website has PDF versions of the Public Fishing Rights maps for the Batten Kill and the stocking reports: <http://www.dec.ny.gov/outdoor.28244.html>. Upon the conclusion of this work the Alliance hopes to partner with the NY DEC to begin installation of cover and shelter structures in New York.

Annual Meeting - August 19th, 2008

The Batten Kill Watershed Alliance will hold its Annual Meeting Tuesday, August 19th at 7PM at the Equinox Hotel in Manchester Village, VT. All are welcome to attend. See page 1 for details.



Website: <http://www.BattenKillAlliance.org>

Email: Info@BattenKillAlliance.org

Interested in Becoming More Involved?

If you or someone you know are passionate about the Batten Kill and would like to volunteer as we work to fulfill our mission of coordinating, educating and promoting stewardship for the benefit of the Batten Kill and its watershed in NY and VT, please contact any one of our directors or officers, or visit our website for more information. All stake-holders are welcome and invited to join us and share your thoughts and opinions. Our board of directors meets monthly and consists of farmers, floaters, anglers, land-owners, conservationists and concerned members of the watershed community in both NY and VT.

Batten Kill Watershed Alliance Officers and Board of Directors

Executive Director: Cynthia Browning, tele: #802.375.9019, email: ExDir@BattenKillAlliance.org

Directors: Greg Cuda (Chairman), Peter Bellamy (Vice Chairman), Charlie Wilson (Treasurer), Peter Hetko, Al Klein, Carl Mohlenhoff, Ken Nicholson, Heidi Pickering, Tom Rosenabauer, Jay Skellie.

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