

Batten Kill Watershed Alliance

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Alliance awarded \$30,000 agreement from USFWS for NY Watershed
These funds will be used in partnership with Trout Unlimited & the US Fish & Wildlife Service
Green Mountain National Forest & BKWA receive national recognition
The habitat restoration project in West Arlington won an Eastern Regional Honor Award from USFS.

*****Please join the Alliance or renew your membership so that we can***
continue this successful river restoration and stewardship**

NEW YORK HABITAT RESTORATION.

The best and biggest news for the New York Batten Kill is that the Alliance will enter into a cost share agreement of up to \$30,000 with the US Fish & Wildlife Service in New York to expand and accelerate the habitat restoration endeavors described below. Thanks to Martha Naley of USFWS for all of her work on this.

Salem Meander 2008 and 2009.

This ongoing project at Hibrow Farm is to restore a big bend in the Batten Kill that had been cut off by a new channel cut through the flood plain. The Alliance supported this project as undertaken by the Clearwater Chapter of Trout Unlimited. With the assistance of Carl Schwartz and Mark Rinehart of the US Fish & Wildlife Service, in 2008 a bank stabilization structure to prevent the channel cut was build with slate rock and earth, and planted with trees. The area would still be flood plain, but the main channel of the river would be the original meander. Such curves are extremely important in maintaining the natural dynamics of the river by establishing a balance between water volume and velocity and sediment.

In 2009 we will repair a breach in the bank stabilization put in last year, and begin to install cover and shelter structures along this long reach similar to those used upstream in Vermont. These structures will help to restore the natural dynamics through collecting debris and sorting sediment, and they will improve the trout habitat by providing the missing habitat element of cover

and shelter. We have about a mile of river to work on here. This project will restore parts of the flood plain to farming use while concentrating the river's normal flow: it is good for the river and good for the farmers.

Thanks to landowners and Alliance members Jay Skellie and Sheldon Brown for allowing access across their land and assisting with materials. Thanks to US FWS and TU for all of their work, past and future.



Mark Rinehart of USFWS and an unidentified TU volunteer working on the bank stabilization structure at Hibrow land and planting trees in a rather macho way. The main channel of the meander that is to be restored is on the left and the cut that was diverting the flow of the river is on the right. That area will continue to be floodplain.

Border Reach and White Creek.

In planning for the future we will work to improve the natural dynamics, habitat, and flood mitigation of White Creek. We will partner with the Adirondack Chapter of Trout Unlimited & USFWS.

The NY Department of Environmental Conservation is still studying the Batten Kill fishery habitat. In the meantime, the Alliance will be exploring the possibility of restoring habitat conditions with cover and shelter structures in various places along the NY river, perhaps beginning at the Vermont border, perhaps elsewhere.

VERMONT HABITAT RESTORATION.

The Alliance has been holding periodic planning meetings with Vermont partners for some years. Now we also have a grant from the Vermont Center for Clean and Clear specifically for a formal planning process. This grant will fund an extensive planning and prioritization process for projects in the watershed in Vermont. This process is already underway, and the results are visible in this newsletter. It is essential to gather all partners together so that we make the best use of our collective resources. The grant also encompasses other activities including buffer zone planting and establishment of a conservation easement along the Green River.

Twin Rivers Extension 2008.

In 2008 we completed a half mile upstream extension of the original Twin Rivers habitat restoration project. Cover and shelter structures involving tree rootwads, whole trees, and slate rock were installed to complete a full mile long reach of restored habitat, from the confluence with the Green River almost to Benedict Crossing. The materials are combined with existing streambank features to create structures that protect fish from predators, hot weather, ice, and floods. The structures also function to sort sediment, creating a more diverse habitat for riparian insect life. In addition, they are designed to enhance the natural river dynamics, facilitating the formation of point bars and meanders and access to the flood plain where appropriate. The large slate stones are used in the structures and also placed in the bottom of pools to serve as shelter and feeding stations that large fish like.



New large woody debris structure provides cover and shelter for trout along Twin Rivers Extension project.



The crew from Green Mountain National Forest, Dydo Co., and Bruce Waite Logging at work in the river.

Two years of monitoring the fish population at the first project site indicate that there are more fish and that small to medium sized fish in particular are more plentiful. These numbers may or may not hold up as we go forward, but it is promising. In addition, recent scientific studies presented at a GMNF workshop suggest that woody debris can increase the productivity in several ways. Riparian insects actually eat the film of algae, fungi, and bacteria that form on these organic surfaces. In addition, the currents and pools around the woody structures allow organisms to use the nutrients flowing by in the river more frequently: an increase in the nutrient spiral and the biological production of the stream.

Thank you to Ken Cox of the Vermont Fish & Wildlife Department, to Steve Roy, Scott Wixsom, and others from GMNF, to Shelly Stiles of the Bennington County Conservation District, and to Jenny Kimberly of the Natural Resource Conservation Service for all of their work on the Twin Rivers Extension project. Thank you also to landowners Dr. and Mrs. William Lesko, Tom Pelham, Birdie Wyman, Wally Murray, Robert Stuart, and Anne and Ron Weber. And thank you to The Orvis Company, the Trout and Salmon Foundation, and Southwest Vermont Trout Unlimited for funding.

A special thank you to the Vermont Agency of Transportation for allowing the Alliance to harvest tree rootwads from the Bennington Bypass worksite for this project. Rob Faley and Jim Harris of VTrans made this possible.



Looking upstream towards 2009 project site from River Road above Benedict Crossing: not much cover in the river.

West Arlington for 2009.

This September we will continue the habitat restoration process beginning upstream of Benedict Crossing. We probably will not do much near the bridge because of the road embankment and the depth of the river along there. But the cover and shelter structures will be installed along the Tibbetts property, which consists of two fields as you head upstream along River Road, and then further along the next landowners' riverbank. We may do some work in the tributary Benedict Brook - this stream is important as brook trout habitat and also as spawning territory and cold water refuge for browns. There is now better access to the upper brook given the new culvert at River Road installed several years ago. We may experiment with adding some wood to the stream to hold sediment and create structure and habitat.

Thanks to the Tibbetts family, the Oaklands, the Danforths, and the Glesmans for participating in the project.

Camping on the Batten Kill.

The Alliance has received a grant from the Vermont Center for Clean and Clear to remove a section of the berm along the Roaring Branch at the confluence with the Batten Kill in Arlington. The study of the geomorphology and hydrology of the area concluded that this removal will lessen the depth and extent of flooding in other areas and lessen the velocity of the branch by allowing it to spread out and slow down. This will reduce the erosion occurring at a large sand bank opposite the entrance of the Branch. The result should be reduced sedimentation of the Batten Kill and restoration of natural river dynamics through flood plain access along that reach of the Branch.

This project has been the number one priority for the improvement of river geomorphology in the Vermont Batten Kill watershed based on recent scientific studies. And the sedimentation from the eroding bank has been of concern among community members for over ten years. So it is extremely exciting to arrive at this point.

Tremendous thanks to the owners of Camping on the Batten Kill for giving permission for the Alliance to undertake this project. We have every reason to think that the removal of a section of the downstream berm will lessen the effects of flooding in other parts of their property. The work will likely take place in the late fall to accommodate the activities of the campground.



Photo is looking upstream along Roaring Branch berm in high water. Removal of berm would allow access to flood plain at right.

STEWARDSHIP.

All of us can be River Stewards in the broadest sense of the words: we can all modify our behavior on the river and our use of the land in order to protect and improve the conditions of the Batten Kill watershed. There are many ways in which river users, riparian landowners, and community members can contribute to good stewardship, from simple things like not throwing trash or beverage containers into the river to more substantial things like planting trees and bushes along streambanks. We are working to develop a handbook of best practices and river resources use by river users and landowners to guide such stewardship.

The actual official River Stewards patrolled the Batten Kill from Arlington down to Salem during summer 2008, collecting data concerning river use and conditions and distributing material about river-friendly behavior. We are working on survey forms for river users and anglers to collect more information about the problems and possibilities for sharing the river. So far in this cool and rainy summer the level of activity is way down.

Planting trees and bushes along streambanks may be the single most important thing we can do to enhance habitat, preserve water quality, and protect property.



Alliance Board member Carl Mohlenhoff, Basin Coordinator Josh Gorman, and Josh's father Tom Gorman planting trees to expand the buffer zone along the Twin Rivers habitat restoration project.

Didymo Algae.

In 2008 the Alliance studied the spread of the invasive algae Didymo in the Batten Kill with the support of an Aquatic Nuisance Species grant from the state of Vermont. Didymo had already been identified as present in New York and in Vermont not far from the border. The sampling and testing procedure was difficult, but with the help of Vermont state biologist Leslie Matthews it was determined that the algae was present at four of the eight sites sampled: in the Batten Kill in Arlington and Manchester, in the West Branch in Manchester, and in the Green River in Sandgate. This does not mean that it is NOT elsewhere in the watershed, but we should do all we can to avoid spreading it, since some areas may not yet have it. This algae has the potential to alter riparian insect populations and damage fish habitat through massive blooms.

These results do highlight the importance of always practicing good river hygiene anywhere in any watershed. As much as possible watercraft, equipment, and clothing should be washed in hot soapy water or disinfected when moving from stream to another, even within the same watershed. Since the ultimate impact of this algae on the riparian habitat of the Batten Kill is still unknown, it makes sense to try to prevent further spread of this and all other aquatic invasives.

PLEASE JOIN US OR RENEW YOUR MEMBERSHIP & YOUR STEWARDSHIP.

Thanks to all who responded to the request for renewal of memberships in December. If you have already not done so, please consider renewing or joining us for the first time. We are fulfilling the mission of stewardship through investments in habitat restoration, education, and partnerships. We are making great progress because of support from members, partners, landowners, and volunteers. Please contact us to learn more about our activities and how you can help.

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