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River Clean-up on June 19

Please join us for our annual river clean-up, this year scheduled for Saturday, June 19 at 9 am in Westfield! We will go out in canoes and kayaks to pick up trash, old tires, ag plastic, and assorted 'finds' along the banks of the Missisquoi River.



We find lots of plastic in its many forms littering the river banks.

This is always a fun outing, giving you the chance to get out on the river and to improve its visual appeal for other paddlers and anglers by removing unsightly items. Participants should provide their own canoe/ kayak, PFD, and picnic lunch. Trash bags will be supplied.

Contact MRBA at 933-9009 or mrba@pshift.com for the meeting place or more info.

Wild & Scenic River Study

Following the signing into law in March 2009 of a bill approving a three-year study of the Missisquoi and Trout Rivers for possible designation in the National Park Service 'Wild and Scenic Rivers' program, the Study's Steering Committee is up and running.

The Committee has hired coordinator Shana Stewart and has elected the following officers: Chair, Jacques Couture of Westfield; Vice-Chair, Todd Lantery of Montgomery; Treasurer, Jayne Chase of Derby; and Secretary, Mike Manahan of Enosburgh.

The Committee's membership is made up of representatives from the Towns in the study area as well as interested agencies and organizations.

Contact Shana if you would like to know more about the Study process or to become involved. She can be reached at (802) 393-0076 or shana.stewart@vtwsr.org and has an office at 2839 VT Route 105 in East Berkshire. Or visit the study's website, <http://www.vtwsr.org>.

The Committee meets monthly (third Thursday at 7 pm); the venue rotates throughout the study area. The Committee's next meeting will take place on Thursday, April 15, at 7 pm. in Enosburg Falls.

Bugworks

Thanks to funding from the Lake Champlain Basin Program, MRBA will again be making 'Bugworks' available to Missisquoi watershed schools. 'Bugworks' is an educational program designed to teach 5th and 6th grade students about the living, natural world of the rivers, ponds and streams in their neighborhood, and about how to evaluate stream health.



Students are fascinated by watershed critters!

MRBA has hired retired middle-school science teacher Ruthanne Rust to teach 'Bugworks'. The program will be tailored to meet the needs and time constraints of each teacher.

Contact MRBA at 933-9009 or mrba@pshift.com for more information.

exist in the lake. Salmon likely initially came to Lake Champlain from the Atlantic by way of the Richelieu River. As dams were built on the Richelieu, fish attempting to return to their ocean home were penned in so that they had to make Lake Champlain home as best they could. I don't personally believe there are many, if any, wild breeding salmon in the lake today. I do know there has been a lot of annual stocking of hatchery salmon by the state/federal agencies for a lot of years. I presume this has been done in the attempt to establish a self-sustaining resident population of these fish. As with the lake trout and sturgeon, possibly the river dams are preventing what otherwise might work in the case of the salmon. I sure wish we had asked Mike about this specifically to see what he would have said. I feel his viewpoints might be less likely to be tinged by politics than some. The sea lamprey has been in the lake forever. It continues to be a problem for fish which occupy deeper waters.

I really liked this presentation and subject matter.

Michael Manahan

Water Sampling

Spring is just around the corner and that means that we begin to think about Water Sampling! We held a meeting in Montgomery in the fall to share the results of water testing for the last five years. Julie Moore, Director of the Center for Clean and Clear, was there to help explain the results. In sharing the information she talked about the importance of water sampling results to the bigger picture of river and lake clean up. Our data is among the most comprehensive in our area. Water sampling results shared over time is of particular value since it can show trends and also pin point problem areas. In fact, some stream bank restoration work has been done as a direct result of the water sample results.

We have been fortunate to have a number of dedicated water samplers over several years and we value their assistance very much. We are always ready to welcome new volunteers to collect samples in their area every other week between May and October. This involves working with one other person to:

1. Collect samples at 1 or 2 sites
2. Transport the samples to the MRBA office in East Berkshire



Some members of MRBA's water sampling program at last November's presentation of preliminary results.

The sampling sites are:

Mainstem Missisquoi River Sites (5):

- Westfield - Loop Rd below Mineral Springs Brook
- North Troy - below Big Falls
- East Richford - near Quebec border
- Enosburg Falls – below town
- Swanton – Monument Rd

Tributary sites (16):

- Burgess Branch (at Rt 58) - Lowell
- Jay Branch (at Vielleux Rd) – Troy
- Trib. to Mud Creek – Newport at Rt. 105
- Mud Creek – Newport Center (Route 105)
- Mud Creek – N. Troy (at Bear Mountain Rd)
- North Branch – Richford (at Pinnacle Rd)
- Trout River – E. Berkshire near mouth (Rt 118)
- Tyler Branch – Enosburg (Duffy Hill Rd)
- Tyler Branch - Enosburg at Boston Post Rd
- The Branch - Enosburg at Rt 108
- Black Creek – Sheldon at mouth (Bouchard Rd)
- Black Creek – E. Fairfield at Ryan Rd.
- Wanzer Brook - Fairfield at Wanzer Rd
- Trib to Hungerford Brook - Sheldon at Cook Road
- Trib to Hungerford Brook - Swanton at Woods Hill Rd.
- Hungerford Brook - Swanton at Woods Hill Rd.

If you are interested in volunteering, please contact Wendy Scott at 933-2125 or wscott23@together.net

Wendy Scott



Students from Richford Highschool helped stone-line a ditch along Creamery Bridge Road in Montgomery last fall.

priority sites, and contacting and visiting landowners to work on conceptual practice and project designs. Five sites are being reviewed by agency partners as to their potential for getting funding and technical assistance through existing state and federal programs. One site may involve collaboration between the landowner, the Vermont Agency of Transportation (VTrans) and other partnering agencies. A riverbank site is continuing to erode and threatens both the southbound lane of Rt.118 as well as the adjacent crop field.

The project is targeted to continue through July 2010 and provide recommendations for additional work. For additional information please contact Brian Jerose, the contracted Project Developer at 933-8336 or jerose@together.net.

Brian Jerose, Project Manager

Public Forum Held

Our annual forum was held in the Richford Town Hall on Thursday evening March 25, 2010. Approximately 20 people attended. Mike Winslow, a staff scientist with the Lake Champlain Committee, which is an environmental watchdog organization dating back to 1963, was the guest speaker. He recently published a book entitled "Lake Champlain – A Natural History". He highlighted selected topics from this book in a brief but very interesting talk.

We learned that the lake is a little over 12,000 years old and has glacial origins. Today it has 5 main parts, one of which is Missisquoi Bay, which is the shallowest and most nutrient rich of the group. This is due to farm runoff/byproducts reaching the lake via the Missisquoi River from regions to the east, and also significant development along the lengthy shoreline of the Bay itself. Today's water reflects what was input upstream in the 1950's. Too much nitrogen and phosphorus are both problems. Though we know much about these two elements, there is probably more to learn about them that will be of value in the future. Most lawns don't need phosphorus. Phosphorus-free dishwasher detergents are available now. If you have drain pipes from your roofs, position them to deposit runoff to soak directly into the ground. Or consider getting a rain barrel. Remove weeds from your boat after use if you use a boat in more than one water body. Removal of causeways would have negative effects on invasive species.



Mike Winslow, author of Lake Champlain - A Natural History

The lake sturgeon was commercially fished in the lake for a short time in the 1880's. Though it has always been in the lake, its population is very minimal today. The damming of the rivers draining into the lake in the 1800's probably shut the door to this fish's normal spawning grounds. The lake trout virtually disappeared from the lake in the 1880's. Today, lake trout are stocked after attaining some size in the hatchery. It has been shown that spawning in the main lake has been attempted by the lake trout and that the complete reproductive cycle does not happen for some reason. So possibly historically this fish went up the rivers to spawn like the sturgeon. A true resident salmon population probably never did

include trees, shrubs and willow cuttings and is also funded through CREP and Partners in Wildlife. Students from Fairfield school are scheduled to participate in the volunteer efforts.

The fifth planned workday will be on Saturday, May 8th at the Kane Farm in Sheldon. The site is along the Missisquoi River and will involve planting additional trees at a buffer site along the Missisquoi River. Part of this site was inundated with ice and water following a mid-winter thaw, and participants can view the impact of the flooding on the prior planting and riverbank erosion.

The sixth planned workday will be on Saturday, May 15th at David Hutchinson's farm in Troy. The project is planned by VT Fish and Wildlife and funded through the USDA Wildlife Habitat Incentive Program (WHIP). A mixture of trees and shrubs will be planted to improve wildlife habitat water quality.

Other potential projects this spring and summer include maintenance on the Trout River restoration site, removing old tree protection and stakes, as well as tile and culvert outlet stabilization sites along roads and adjacent to crop fields. If you have questions about volunteering or ideas for other volunteer work sites, please contact Cynthia (933-9009) or myself (933-8336).

Brian Jerose, MRBA Technical Advisor

Geomorphic Assessment

MRBA has been awarded an Ecosystem Restoration and Protection Grant from the VT Department of Environmental Conservation River Management Program to perform a Phase 2 geomorphic assessment of the Upper Missisquoi River (headwaters in Lowell to the Canadian border in North Troy). This is part of an on-going effort to build up a science-based understanding of the condition and behavior of the waters in the Missisquoi watershed.

A consultant will be hired shortly through an RFP (request for proposals) process with fieldwork expected to take place this summer.

Project Development in the Trout River Watershed



Soil erosion is reduced by lining a culvert outlet with fabric and stones

The Trout River Watershed Project is continuing to seek both short-term and long-term conservation and restoration projects that improve water quality, enhance wildlife habitat and protect the long-term geomorphic stability of the river channel, its tributaries and its adjacent infrastructure. Funding and oversight is provided by the VT Agency of Natural Resources, River Management Program, with additional input from a steering committee composed of local citizens and agency representatives.

Short-term projects this spring and summer will involve continued work with the Town of Montgomery in the West Hill Brook subwatershed. Culvert inlet and outlet stabilization is targeted as the most likely type of work that would reduce sediment loss, minimize channel and bank erosion and be capable of being completed by small volunteer crews collaborating with the Town's road crew. The Town of Enosburgh will also be approached for additional sites in this subwatershed. The goal is to reduce the overall load of sediment and nutrients in this area, which can be observed by the sediment build-up under the Rt.118 Bridge at the base of West Hill Road.

Long term riparian buffer planting and corridor easement projects are also being pursued with multiple local landowners in the towns of Montgomery and Enosburgh. The effort towards planning and developing easements and buffers has involved gathering additional detail about



Watershed Update

Missisquoi River Basin Association

Spring 2010

Schedule of Volunteer Activities

Here is a preliminary list of what's happening this field season...

- Sat., April 17, 9am – 1pm – Tree planting, Highgate
- Sat., April 24, 9 am – 1 pm – Tree planting, Enosburgh
- Tue., May 4, 9 am – 1 pm. – Tree planting, East Franklin
- Wed., May 5, 9 am – 1 pm. – Tree planting, Fairfield
- Sat., May 8, 9 am – 1 pm – Tree planting, Sheldon
- Sat., May 15, 9am – 1pm – Tree planting, Troy
- Sat., June 19, 9am – 3pm – River clean-up, Westfield/Troy
- May–October – Water sampling every other week

To Sign Up or Get Directions:

Call Cynthia Scott (802) 933-9009 or
mrba@pshift.com

its Partners in Wildlife Program. This is the second year of this project and will fill in additional tree and shrub species in the buffer area.

The second workday will be on Saturday, April 24th at Pat and Amy Cochran's farm along the Missisquoi River in the Town of Enosburgh. The site is less than a mile downstream of the confluence of the Trout River and the Missisquoi in East Berkshire. This project is also a CREP and Partners in Wildlife joint project. 500 trees and shrubs are targeted to restore the silver maple floodplain forest that would be the natural community for this location and soil type.



Volunteers planted trees in between rows of corn last summer at the Rowell farm in Highgate

2010 Field Work

The first volunteer tree planting will take place on Saturday, April 17th at Brian and Bill Rowell's property of Green Mountain Dairy. The tree and willow planting will occur along a tributary to the Rock River in the Town of Highgate. The farm has initiated a Conservation Reserve Enhancement Program (CREP) project, a program of the USDA Natural Resource Conservation Service (NRCS) and the Vermont Agency of Agriculture Food and Markets (VT AAFM). The US Fish and Wildlife Service (USF&WS) is also providing cost sharing through

The third community workday will be on Tuesday, May 4th at Mike and Deana Benjamin's farm in East Franklin. Student volunteers from the Cold Hollow Career Center's Natural Resource and Forestry Program will be available. This buffer planting site along tributaries to the Pike River is also a CREP and Partners in Wildlife project.

The fourth workday will be on Wednesday, May 5th at Dwight and Louise Callan's farm in Fairfield. The site is along Wanzer Brook and is part of a larger floodplain restoration project that was started last summer. The buffer planting will