Missisquoi River Basin Association

Summer 2014



Watershed Update



We've accomplished a lot so far this year from planting trees and taking water samples to lobbying our state legislators and hosting a community cookout at Marble Mill, Swanton. We've also had some new faces around the office: Rebekah Weber has joined our team as an AmeriCorps member and Per Engstrom comes to us from Johnson State College as our summer intern. In addition to coordinating projects and catching our new staff up to speed, I've have been busy strengthening connections in our communities and writing grants to expand our efforts. We've made a major push these past few months to build our presence online. Please enjoy our first ever electronic newsletter!

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Alisha Sawyer, MRBA

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I was excited to jump right into this year's water sampling season. Over the past nine years, MRBA has collected close to 7,000 water samples from 186 sites. This summer we have sampled phosphorus, nitrogen, and turbidity at 21 sites. These samples are then analyzed at the University of Vermont LaRosa lab.

Water quality monitoring is crucial because it lets us know how conservation practices, such as tree planting along streams, are impacting our lakes and rivers. From nine years of data, we can discern trends and critical source areas with high nutrient loads. I have also learned how patterns generated from water sampling need to be taken in context. Across the board, 2012 data showed spiked levels of phosphorus, which is expected with the heavy rainfall and weather events of that year. I'm looking forward to seeing the results from this summer's sampling.

Our sampling program is completely volunteerrun. Without our volunteers, we would not be able to continue such an important program.



Over the last six months there have been a number of developments in the policy world. A new farm bill was enacted this past February, establishing new conservation programs and sources of funding. Of particular importance to Vermont is the Regional Conservation Partnership Program. For 2014 and 2015, this new program is expected to provide nearly \$400 million for water quality and conservation projects across the nation. Vermont and New York have submitted a joint application to clean up the Lake Champlain watershed, and MRBA has signed on as a partner.

At the state level, the legislature passed the Shorelands Protection Act this past session. This law sets new standards for development within 250 feet of Vermont's shorelines. The State House also considered a variety of bills aimed at regulating farms, forests, roads, and other sources of phosphorus, however nothing has been enacted.

At the end of May, the State of Vermont submitted the *Vermont Lake Champlain Phosphorus TMDL Phase 1 Implementation Plan* to the Environmental Protection Agency
(EPA), which lays out the State's plans for addressing the excessive amount of phosphorus in Lake Champlain. This plan represents an important step forward in gaining EPA's approval. In 2011, EPA rejected Vermont's 2002 plan to address the phosphorus load in Lake Champlain. The State is now awaiting EPA's response to its revised cleanup efforts.

Farm Tour 2014By Alisha Sawyer, MRBA Coordinator

Ongoing water quality monitoring and conservation planning have generated models and statistics related

to which lands contribute what in terms of phosphorus. With this surge in numbers and percentages, it is more important than ever to understand the whole story, including what people are doing to address water quality concerns.

On July 10th, MRBA, the Franklin Watershed Committee, and Friends of Northern Lake Champlain held a watershed farm tour with support from UVM Extension and several farms in the area. The purpose of the tour was to share what farmers in the Missisquoi watershed are doing to reduce soil and nutrient loss on their farms. Over 40 people attended the event which was geared toward farmers and non-farmers alikealthough the sunny, 70 degree day lent itself to haying.

Starting off the day with maple doughnuts and coffee as well as milk and cheese generously provided by the Pleasant Valley Farm, we quickly loaded onto a school bus supplied by the Ploof family and headed up to Enosburg. Our first stop was the Gervais family's heifer facility where we witnessed one of their newest pieces of equipment in use — a drag line. This manure application technique benefits water quality by reducing soil compaction and by providing a more exact application rate, helping to ensure nutrient management plans are followed. There are also fuel savings for the farmer and the drag line results in fewer odors while spreading.

Next, we drove past the Wagner and Benjamin farmsteads where they talked about conservation practices they implement as well as the new digester at the Benjamin farm. We headed to Tim Magnant's farm for lunch – provided by Champlain Valley Equipment and catered by the Abbey – and toured Tim's fields to see how his grass swales and buffers are working to prevent soil loss and erosion.

We rounded off the day by stopping by Les and Nancy Johnson's Lake Wise-designated camp at Lake Carmi. The Lake Wise program motivates shoreline residents to evaluate their impact on the lake ecosystem and make improvements.

There is a lot of good going on throughout the Missisquoi watershed. While most statistics note that we have a long way to go, it's important to recognize the members of our community who are stepping up to face this challenge. We created this situation together, and we need everyone in the watershed to work together to effect change.





Become a Member

Please support our mission of restoring and maintaining the ecological integrity of the Missisquoi River system so that the uses and values desired by the community are supported by the river and quality of its water.

Suggested donation levels:

- Creek \$10
- Brook \$35
- Stream \$100
- River \$200
- Student \$5

Donations via PayPal available on our website

By Brian Jerose, MRBA Technical Advisor

The late snow cover also meant a later start to the tree-planting season this spring. The first volunteer workday was April 28 at Randy Callan's farm in Fairfield with Fairfield School students from Andrew Evan's 7th grade class. We planted 120 trees and 80 willow livestakes along Black Creek and a tributary stream. This site was the second phase of a "Trees for Streams" project, and VT Agency of Natural Resources Ecosystem Restoration Program dollars supported the site planning, the tree and shrub purchase from VT Native Nursery, and the implementation and coordination of this project.

The second planting was held on Saturday, May 3 at the Immaculate Heart of Mary Monastery in Westfield. The site is along the upper Missisquoi River and was the second phase of another "Trees for Streams" site. A group of over 15 volunteers and members of the monastery planted 120 trees and 280 willow livestakes. Michael Miller from VT Native Nursery donated additional trees and described the species used on site.

The third planting was held Friday, May 9 at Jason Bessette's farm in East Fairfield along tributaries to Black Creek. Maureen Thompson's 5th grade class at Fairfield School planted 125 trees and shrubs on one section of a 14-acre and 4220 stem site. This project was funded and planned through the Conservation Reserve Enhancement Program and the Partners in Wildlife programs, a joint federal and state effort. This may be the largest planting yet in the town of Fairfield.

The fourth planting was held Saturday, May 10 along the Missisquoi River and a tributary in Sheldon with nine community volunteers. Two adjoining landowners, Norman Kane and Pierre Vaillancourt, signed up for tree and shrub planting through the "Trees for Streams" program. This excellent site included establishing a forested buffer on the steep banks of the river just east of the Rt.105 and Rt. 236 (State Park Road) intersection. The tributary runs north from the Missisquoi River and east of the State Park and Gilman Roads.

The fifth planting, held Wednesday, May 14, was at the same site with the 5th and 6th grade classes from Sheldon Elementary School. The students planted approximately 180 trees and shrubs. The Sheldon 7th and 8th grade classes joined us for the sixth planting day on May 15, working on the next section upstream, planting another 175 trees. The seventh planting was the following Saturday, May 17 and seven community volunteers planted another 110 trees. The remaining 200+ trees and shrubs were planted by the project contractor Agrilab Technologies (Brian Jerose and Jaime Tibbits) along with MRBA AmeriCorps member Rebekah Weber and MRBA Intern Per Engstrom.

In total, the planting areas at the Kane and Vaillancourt sites covered approximately 4 acres and included 1240 trees and shrubs. The species were diverse to match the varying soil types and conditions found along the tributary and the main stem of the river. In addition, these planting areas connected to a buffer planted along the Missisquoi River in 2010. That 3-acre riparian buffer is owned by Tom and Nancy Kane and is visible from Rt.105 across from the Amerigas location.

We hope to continue to "fill the gaps" in local riparian buffers through future projects this fall and next spring. Please contact us if you are interested in working with us or sharing ideas for other priority sites. We are actively scouting out new opportunities this summer. Thanks for all of your great digging!





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