



Musconetcong River News

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Asbury, New Jersey

Hughesville one year later, shad return!

By: Karen Doerfer, Communications and Administrative Coordinator

This time last year, MWA was completing final steps in order to begin dredging at the site of the Hughesville dam. Now, one year after this project was actively underway, NJDEP has officially confirmed American shad have returned to the river. This confirmation came in early June after anglers fishing for trout reported seeing small schools of shad.

“Confirming American shad upstream of the former Hughesville dam this spring was incredibly thrilling,” said Pat Hamilton, Principal Fisheries Biologist, New Jersey Division of Fish and Wildlife (NJF&W). “The presence of this migratory fish validates the hard work of many people and partners, especially the Musconetcong Watershed Association, and underscores the importance of removing dams to reconnect fish pathways, and improve water quality and in-stream fisheries habitat.”

American Shad live most of their life in the Atlantic Ocean and return to the Delaware and smaller rivers that empty into it, like the Musconetcong River, to spawn each spring. However, many of these smaller rivers have been dammed since colonial times, making them impassible to shad and other migratory fish.



Photo Credit: NJ Fish and Wildlife

American shad, measuring over 17 inches when discovered in early June, 2017.

“The discovery of American shad upstream of the former Hughesville dam is a testament of the ability of people to restore a keystone species, if they work together toward a positive common goal,” said Geoff Goll, President, Princeton Hydro, engineering and design for this project. “The board of directors, staff, volunteers and members of the MWA have created a model of how to achieve a system-wide ecosystem restoration through grassroots efforts. Imagine if each tributary to the Delaware River had an MWA?”

MWA is now in early planning stages with the DEP to remove the Warren Glen dam which is the largest dam on the Musconetcong River. This will open greater passage for migratory fish, including American shad, as well as further improve water quality in the river.

“I always believed we’d see shad eventually,” said Beth Styler Barry, former MWA Executive Director. “I just never imagined it would be within the first season! This is great news for the Musky, but also an important validation for the way these river restoration projects are being designed and installed. The Musconetcong River Restoration Partnership has been working together since 2008 and this is another example of its success.”

MWA received both funding and technical assistance from NJF&W and U.S. Division of Fish and Wildlife (USF&W) for the removal of the Hughesville dam. This



Photo Credit: NJ Fish and Wildlife

Pat Hamilton, Principal Fisheries Biologist, New Jersey Division of Fish and Wildlife, holding a shad.

Current progress on mill restoration

By: Chuck Gullage, MWA Trustee Emeritus

Work continues on the Asbury Mill—although for the past several weeks much of what we accomplished has been in the office. Because MWA is a non-profit organization, we depend heavily on grants from governmental organizations and private foundations, as well as the generosity of individual donors. Over the past few weeks, the mill restoration core team and the ever supportive MWA staff have been working feverishly to complete grant proposals to the Preserve New Jersey Historic Preservation Fund and also to the Warren County Municipal Charitable Conservation Trust Fund. In addition, we have also prepared grant proposals to the Franklin Township Open Space Committee and to the Riddle Family/Asbury Carbons.

There are still a few details to attend to, but much of the grant work is complete. Now, the waiting begins. Once we submit grant proposals, we have to sit back, wait for feedback, and hopefully receive approvals from the grantors. For many of the grants, we should receive response in the last quarter of this year. However, we have already received notice of approval

‘Hughesville’

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dam removal was a major project for the MWA, but could not have been made possible without the help of partners: U.S. Fish and Wildlife Service, NJ DEP Office of Natural Resource Restoration, Natural Resources Conservation Service, National Oceanographic and Atmospheric Administration, American Rivers, North Jersey Resource Conservation and Development Council, New Jersey Trout Unlimited, NJDEP Division of Fish and Wildlife, National Park Service, Corporate Wetlands Restoration Partnership, and private landowners, including International Process Plants and Equipment. 🍷

from grant applications to the New Jersey 1772 Foundation and Hyde and Watson Foundation. We are also the recipient of a NJ RC&D NJDEP 319h grant to help manage stormwater runoff around the mill and in the parking lot.

Since our last newsletter report, our contractors have completed installing historic replica windows on the east wall of the mill. They are historically accurate, but they are manufactured to modern, energy efficiency standards. We’ve also completed a historically accurate portico of the east side door. We didn’t have the specifications on the poetical original portico, so our contractors reverse engineered the portico from a 1906 photograph. We are unsure what kind of roof would have been used on the original portico, so we chose slate to match the slate on the roof of the mill.

The most recent work item we completed this year was to install a septic tank

in front of the mill. There are more components that we need to install to complete the system, but we’re going to have to raise additional funds to complete that portion of the project. The septic system will work in conjunction with the Clivus Multrum composting toilet unit that we already have in the basement, ready to be hooked up.

Currently we’re working with architects from Re:Vision to finalize user requirements for the interior. One of the new design features that we’re looking at is the installation of an external elevator on the west wall to address Americans With Disability Act requirements. It is likely that the elevator tower will also house the staircase to the third floor, freeing up space inside the mill.

For more information or to donate to our mill restoration project, please visit www.musconetcong.org/restoring-grist-mill.php. 🍷



Completed portico, as well as cautioned area where the septic tank was installed

NJ RC&D Spotlight: River Friendly Farms

*By: Kara Hasko, NJ RC&D
Agricultural Outreach Specialist*

Ditzel Farm, in East Amwell, NJ, has been certified as a River-Friendly Farm and is being recognized for following best management practices which focus on protecting water quality. The River-Friendly Farm Certification Program is a voluntary program designed to recognize farms that protect shared natural resources through responsible land management.

The 93 acre horse boarding facility, which also grows hay and vegetables, is nestled along the Back Brook tributary to the Neshanic River. Jenelle and Walter Ditzel have been learning about and conserving their natural resources since they purchased the farm in 2000. They applied for the River-Friendly program in 2006 and have been actively working with the Natural Resource Conservation Service (NRCS) to ensure positive stewardship practices on their land.

The Ditzel's began their work toward River-Friendly status in 2007 when North Jersey RC&D assisted in planting a buffer zone on their property. Three hundred trees and shrubs were provided by U.S. Fish and Wildlife Service. Buffer zones are a very useful practice to absorb stormwater and farm runoff. They also provide habitat for wildlife and shade surface waters, helping to cool and improve water quality.

Since submitting their River-Friendly Farm application and beginning their relationship with RC&D and NRCS, the Ditzels have built a manure stacking pad to safely compost their horse manure. A diversion was built in a pasture and a hayfield to slow water flow and reduce erosion. Their barns were fitted with roof runoff structures which lead to underground outlets, preventing water from traveling through soiled livestock areas. Grassed waterways and filter strips have also been constructed to reduce field runoff.

In the next few years, the Ditzels plan to reseed their pastures, add additional pastureland, and begin following a prescribed grazing plan to improve forage stand and utilization by livestock.

These practices will reduce overgrazing and bare soil areas which will reduce erosion and weed growth in the horse pastures. Another manure stacking pad will be built to compost the manure from their second barn and pastures.

The Ditzel Farm has worked extensively to be good stewards of their land and improve their practices. We are proud to have the Ditzel Farm as a part of the NJ RC&D team as a River-Friendly Certified Farm and would like to thank

them for their continued work toward conserving our shared natural resources. 🌱



The completed buffer zone on the Ditzel's farm

River clean-up surpasses record set last year

By: Karen Doerfer, Communications and Administrative Coordinator

This year not only marked MWA's 25th year as an established organization, but also our 25th anniversary leading a watershed-wide river clean-up. This milestone did not go uncelebrated as we had over 400 volunteers attending—a record-breaking number for us!

MWA's clean-up is traditionally held the weekend after opening season for trout fishing on the Musconetcong River. This year was no different, and thankfully, April 15th provided great weather for volunteers to clean-up. Volunteers are each provided with gloves, bags, granola and water bottles for the morning, and then MWA hosts a "Thank you BBQ" at our River Resource Center. All volunteers are invited to our BBQ where we share stories of interesting finds along the river as well as other MWA events and upcoming projects. This year, volunteers collected over 300 bags of trash and recyclables, 55 tires and other large trash items including an old canoe.



MWA hosts various other volunteer events throughout the year. We have a solid group of volunteers who help with everything from water quality monitoring and riparian planting to scheduled clean-ups and office tasks. There is something for everyone, and we are always interested in seeking new help. For more information on the Annual River Clean-up or other volunteering opportunities, please visit our website or call our office. 🌱

MWA installs new sensor stations in upper watershed!

By Nancy Lawler, MWA Water Quality Program Coordinator

Through MWA's Water Quality Monitoring Program, we work to find better ways to collect and share information about the health of the river. Currently, the two USGS gages on the river at Lake Hopatcong and Bloomsbury Township provide us with continuous flow data for those points, but they don't provide information about other indicators of river health or help us understand river conditions between the gages. For that we need different and continuous data. Up until

recently, collecting further data has been too expensive, but recent "do it yourself" technology has provided low cost opportunities.

Stroud Water Research Center has developed the Mayfly Datalogger which takes data from sensors placed in the river and sends it to a website to be viewed remotely. Under grants from the William Penn Foundation and the Watershed Institute, MWA is able to be part of the pilot study for these sensor stations. We recently installed two of the sensor stations up and downstream of the Musconetcong Sewerage Authority, in a section of the river downstream of Lake Musconetcong, where lake level management impacts river flow. You can view the data from our sensor stations and others by visiting <http://drwisensors.dreamhosters.com>. If you have questions, please reach out to Nancy Lawler at nancy@musconetcong.org.

The sensor stations can collect and transmit continuous data about indicators beyond flow, and we are very excited that we are able to share this information with the public. The parameters the sensor stations collect are:

Conductivity—the measure of how well the water conducts electricity. It is a measure of ions in the water, whether they are natural minerals or pollutants. Specific conductance in the Musconetcong River varies, but is typically 350-500uS/cm which is average for rivers in the United States.

Temperature—there are two graphs that display temperature. One is for water temperature, and the other is the temperature inside the datalogger which helps us maintain the instrument. Recently MWA has been reporting higher temperatures which could negatively affect aquatic life and can add to pollution problems.

Depth—we are using the sensor depth as an indicator of flow with other measurements made by MWA River Watcher volunteers and our interns.

Turbidity—this is a measure of how transparent the water is and helps us understand how sediment moves in the river. Turbidity in the Musconetcong River is typically between 10-30NTUs. Higher values can indicate severe land erosion issues.



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www.musconetcong.org

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Photo by Jeremy Travers

MWA, Stroud, and volunteers at a new sensor station

SAVE THESE DATES!

Saturday, August 5, August 19: Meet the River, meet at 10:00 am. A preschool-age program to orient kids with the river. Sessions take place at Point Mountain or River Resource Center. Email kyle@musconetcong.org for more information or to register.

Sunday, August 27: Volunteer Thank You Day, 1:00 pm-3:00 pm. MWA would like to thank all of those who have volunteered for us with a BBQ at our River Resource Center. There will be a free BBQ and kayaks available to take out. Please RSVP to karen@musconetcong.org if you would like to attend.

Sunday, September 10: Farm Tour. Join MWA as we take you on a tour of local agriculture within the Musconetcong River watershed. Stops will include a vegetable farm, cattle farm and vineyard. All farms are local and promote sustainable practices. Guests will learn about sustainable agriculture and sample some local treats. More information to come, but please save the date!

Saturday, October 14: Wine Tasting on the Musky, from 2:00-5:00 pm (Rain date Sunday, October 15). Enjoy a relaxing afternoon near the banks of the Musky. Sample over 40 wines from around the world and a variety of premium craft beers. Lots of snacks including smoked trout, fresh from the Musky, will be served. Tickets are \$30 pre-paid, and \$35 at the door. Checks payable to MWA. Please call (908) 537-7060 for more information.

Saturday, November 25: Post-Thanksgiving Hike at Point Mountain, from 10:00 am-12:00 pm. Burn off those Thanksgiving calories at our annual hike on the Ridge Trail of the Point Mountain Reserve. A scenic overlook provides a beautiful vista of distant mountains and farmland. The trail is diverse and challenging at times and includes a steep and rocky incline. Good for novice and expert hikers. Bring a snack, water and binoculars to the gravel parking lot on Point Mountain Road, 0.3 miles from Route 57. MWA Members are FREE! Non-members are asked to donate \$3 (Not more than \$10/family). For more information or to register, email kyle@musconetcong.org.

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Meetup
Musconetcong
River Area
Outdoor Activities

For more information or to register for any of these events, please email karen@musconetcong.org or call (908) 537-7060, unless otherwise noted. MWA River Resource Center (RRC) is located at 10 Maple Avenue, Asbury, NJ.

The Musconetcong Watershed Association

The Musconetcong River Valley is rich in scenery, history, natural resources, and recreational opportunities. The river rises up in Lake Hopatcong - New Jersey's largest spring-fed lake - and is shadowed by 1,000-foot Highland ridges and slices through a deep, limestone river valley, flowing swiftly to the Delaware River. Along the way the "Musky" passes by state and county parks, bustling towns, vital industries, historic villages, and some of the most productive farmland in the state.

The Musconetcong Watershed Association (MWA) is a non-profit organization formed in 1992 to protect and enhance the Musconetcong River and its related resources through advocacy and environmental education programs, scientific research and river restoration projects. The MWA scope spans the 158 square-mile Musconetcong River Watershed, and includes portions of four counties, and all or portions of 26 municipalities. The Musconetcong River became part of the National Wild and Scenic River System in 2006.

MWA members are part of a network of individuals, families and organizations who care about the Musconetcong River and its watershed. They are kept informed about issues concerning the river and its related resources by receiving quarterly issues of the *Musconetcong River News*.



PO Box 113
Asbury, NJ 08802

MWA Membership Application

Please enroll me as a member of the Musconetcong Watershed Association in which I will receive membership benefits and publications. I have enclosed a check payable to **MWA** for the membership category listed below:

- \$20 Student
- \$30 Family
- \$50 Supporter
- \$100 Sustainer
- \$250 Steward
- \$500 Champion
- \$1,000 + Life Member

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

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