



Musconetcong River News

Winter 2019

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Asbury, New Jersey

Using Drone Technology to Improve the Watershed

By Bill Leavens, MWA Board Secretary

Small drone aircraft offer a convenient and useful bird's eye view of wide landscape areas. We recently were able to use a drone to examine two river impairments that were caused by the excessively high water from this year's rainfall. This year, New Jersey has seen about twice our normal annual rainfall.

Although drone flight is limited by regulation to 400 feet, that provides enough altitude to take high quality video and photographic images of large areas like dam pools or meadows. As a private aircraft pilot, I have hundreds of aerial photos of our dam removal sites that we have used to assess our work over the years. However, the drone photography is clearly superior in almost all of our aerial view applications for any number of reasons. For one thing, a drone can hover at one point in space and produce a long and detailed video pan from that point. It can also go straight up and down to capture exactly the image needed. It's difficult to do that with an aircraft and doubly difficult when trying to use a camera.

Two recent drone missions illustrate the value of drone technology. High river water levels resulted in tree falls that have impacted the lower section of the river. At the Hughesville dam removal site, a large sycamore fell and with that, there has been a deep scour along the riverbank due to very high water conditions. With the drone, we were able to get a comprehensive view of the damage at the site and the pictures will help to formulate our remediation procedures.

Just below the Riegelsville dam removal site, another large tree had fallen in the river. Due to the nature of the topography in the area, the river began to carve a new channel to the left going downstream. With the drone, we have been able to map the size and configuration of the site so that we can properly plan to remove the tree along with the large volume of debris that has collected behind it. Unfortunately, none of that work can be undertaken at the current highly dangerous flow rates that pose a real risk to the volunteers who would do that work.

However, we know that we have a valuable observation tool that provides a unique perspective on river projects. We can obtain immediate high resolution images of the river to share with our partners for monitoring river conditions or planning for restoration projects. This is a great example of how modern digital technology is used on a daily basis to help us in our work.

MWA Trustee Emeritus Chuck Gullage is a licensed drone pilot. He currently operates drones owned by Great Swamp Watershed Association and the NJ Highlands Coalition. We are grateful that Chuck shares his skill and his capabilities with us. Just having the right view can make all the difference in properly assessing the condition of the river. Thanks also to the Highlands Coalition and to Great Swamp Watershed Association for sharing the equipment. It works! 📷



Photo credit: Alan R. Hunt, Ph.D., MWA Executive Director

From left to right: Cole Baldino, Trout Unlimited; Larry Seibel, property owner; Steve Skrobacz (holding drone); Chris Meyers; Chuck Gullage (in chair).

New Jersey Rainfall and Climate Change

*By Karen Doerfer, MWA
Communications & Administrative
Coordinator*

We are only a little over a month into 2019, and it is already proving to be as wet and rainy as our recent record-breaking fall. According to the New Jersey Precipitation Departures Map from January 2018 to December 2018, posted by the Office of the New Jersey State Climatologist, we just had the wettest fall on record with records dating back to 1895. These maps also showed some of the second and third warmest months on record in 2018.

With superstorms like Sandy and the sporadic nature of our recent sea-

sons, we've heard the term 'climate change' in the news, on social media and from friends and family a lot lately. Increased carbon dioxide emissions are warming our planet and causing troublesome weather patterns.

"Annual precipitation (rain and melted snow) across New Jersey in 2018 averaged 64.30". This is 17.94" above the 1981-2010 average and is the wettest calendar year since statewide records became established in 1985," said David Robinson, New Jersey State Climatologist, and Distinguished Professor at Rutgers University. "This total eclipsed the previous record that was achieved in 2011."

As with other watersheds, the Musconetcong Watershed is now at a greater risk for flooding as well as stormwater pollution—potentially affecting drinking water and water quality in the river.

"How much of a role our changing climate played in the past year's weather

is uncertain," added Robinson. "These days, every weather event is impacted by an underlying climate system that is warmer and has the potential of holding more atmospheric moisture than in the past." He notes that they cannot determine how much climate change played a role in 2018 weather patterns, but this was the 11th warmest year on record.

The Musconetcong River is seeing changes based on the increasing moisture in the area. The recent daily discharge values at a gage in the lower Musconetcong show an above average volume of water passing through the river channel. These above average flows make recreation on the river challenging and not recommended.

There are ways to help reduce our carbon footprint. Reducing plastic consumption will reduce the carbon dioxide emissions it takes to create these products as well as reduce the potential for byproducts to end up in our rivers

and oceans. You can also join the MWA as a River Watcher and help monitor and be a voice for education and change in your area. Register with Nancy Lawler, Water Quality Program Coordinator at nancy@musconetcong.org for either the March 23 or March 24 training dates. ☪

MUSCONETCONG WATERSHED ASSOCIATION

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www.musconetcong.org

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*Flooding along the
Musconetcong River at
the Bloomsbury Dam
site after recent rainfall*



Proposed Tributary Protections Could Lead to Greater Protection of the Musky

By Alan R. Hunt, Ph.D., MWA
Executive Director

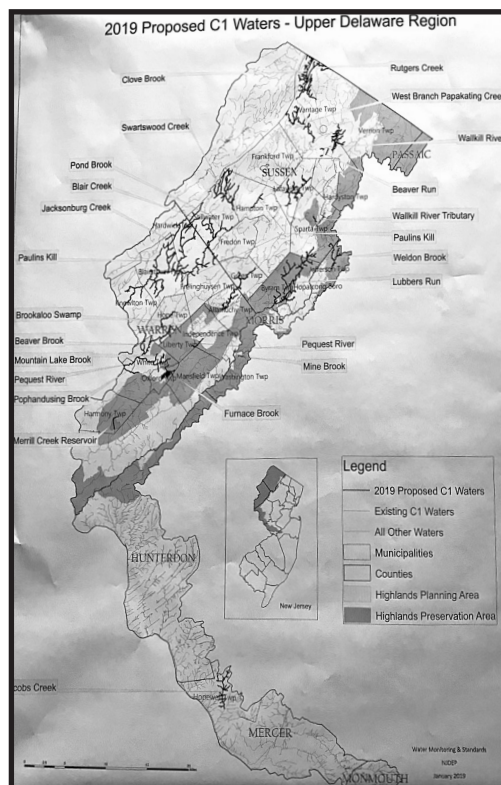
The New Jersey Department of Environmental Protection (NJDEP) announced new proposed “Category One” waters in the State at a stakeholder meeting held mid-January in their Trenton headquarters. Statewide about 740 miles of rivers and streams are proposed for this “anti-degradation” water quality standard. This included several miles of Musconetcong tributaries: nearly all of Lubbers Run and Cowboy Creek, a section of Mine Brook, and Weldon Brook (a headwater of Lake Hopatcong). These upgrades were based on water quality and fisheries habitat indicators only.

The NJDEP indicated that public comment for these upgraded surface water classifications would likely occur in this summer and that they plan to finalize the designations in the fall. This is the first substantial increase in waters proposed for Category One status since 2012. That 2012 effort

stalled out, however. In 2008, most all of the Musconetcong River and its tributaries received Category One status.

During the stakeholder meeting, MWA asked NJDEP about the potential for further upgrading the Musconetcong’s water quality standards to Outstanding Natural Resource Waters, the highest water quality protection available in the State. The Environmental Protection Agency indicates that designated National Wild & Scenic Rivers can receive this level of protection based on significant recreational resources. In response, NJDEP staff indicated interest in developing a process for designating water quality standards based on recreational and scenic resources. Support for this was echoed by several other watershed organizations attending the event.

MWA will keep you posted on public commenting opportunities to raise the water quality protections on the Musconetcong River and its tributaries.



Map of the 2019 proposed Category One waters

Partner Highlight: Creating Momentum for Environmentally-Friendly Farming

By Karen Doerfer, MWA Communications & Administrative Coordinator

MWA partners and River Resource Center “roommates”, North Jersey Resource Conservation & Development Council (NJRC&D), while established in their own right, provide a great agricultural complement to the work that we do. NJRC&D aims to help farmers implement practices that improve regional water quality, farming sustainability, and economic viability. As part of this mission, they organize educational events, work with MWA and other partners in the Delaware River Watershed Initiative, and administer an aerial seeding initiative that uses airplanes to seed cover crops on local farms.



Photo Credit: North Jersey Resource Conservation & Development Council

As a way to promote the benefits of cover crops, NJRC&D recently hosted a No-Till and Cover Crop Conference at Hawk Pointe Golf Club. This innovative gathering was the first of its kind in our region and brought out over 110 farmers and agricultural professionals.

Cover crops that NJRC&D have deployed typically include an all-natural mix of rye, radish and clover seeds. Maintaining crops in between growing seasons helps to improve water quality. They are also intended to build soil organic matter and prevent soil erosion.

“75 percent of soils in the region are losing organic matter every year,” said Bridgett Hilshey, Agricultural Specialist, NJRC&D in a press release. “What that means is that in 30 years, the soil you are farming now may no longer be profitable. This trend threatens agricultural sustainability in New Jersey.”

NJRC&D aims to create awareness of soil issues that this region is currently challenged with as well as show the benefits of establishing cover crops. The conference included keynote speakers and breakout sessions given by local and national experts in the field of no-till and cover crops.

We applaud our partners for a successful and first large-scale event. If you interested in learning more about the benefits of no-till and cover crop to agricultural production, visit: www.northjerseyrcd.org/cover-crops.

The Musconetcong Education Trail Needs You!

MWA is looking for volunteers for our 1.8- mile trail that parallels the Musconetcong River, passing numerous streams and ponds along the way. There are no houses on the trail, and it is a quiet, refreshing walk – good for birding and observing spring and summer flowers. It begins in Asbury, at the River Resource Center, 10 Maple Avenue, Asbury, NJ 08802, which has a native plant and pollinator garden, and ends at the Shurts Road Fishing Access. Originally, an Eagle Scout project, the nearly ten-year-old trail needs some TLC and could use volunteer support.

Trail Manager(s): If you like people, can use email and a phone, and are organized, we could use your help as a Trail Manager. This volunteer position organizes our Trail Crew Volunteers. You would work with the Watershed Programs Coordinator, our Grounds Committee, and Grounds Keepers, to promote the trail, identify the trail's needs, write grants, update and maintain the interpretive signs, and plan volunteer work days. Depending on your interest, you could specialize in one or more of these areas. This is a crucial role – we have more people interested in helping with the trail than we can manage. Without the Trail Manager, there is no Trail Crew!

Trail Crew: If you like being outdoors and getting your hands dirty, this is the job for you. The Trail Crew helps keep the trail clear from debris and summer's growth, reroutes the trail if needed, keeps it blazed, builds small and large stream crossings, installs planking in wet areas, and installs interpretative signs. Some of these tasks can be done individually, at your leisure; others are group tasks. Meet your neighbors and make new friends. Even a couple of hours of work can have a permanent, lasting impact!

Contact: Kyle Richter, Watershed Programs Coordinator, Musconetcong Watershed Association, 10 Maple Ave., Asbury, NJ. 908-537-7060. info@musconetcong.org.

ANOTHER VOLUNTEER OPPORTUNITY

MWA has occasional need for legal support. In the past, this has included things like advice on our Conflict of Interest policy/administration, support for Planning Board presentations, advice on Human Resources policies/situations, and review of our Affiliation Agreement, Bylaws and contracts. Typically, our volunteer lawyer(s) advise on simple matters that span a range of topics. For more complex issues, the volunteer would liaise with outside, contracted firms as approved by the Board of Directors. This is a wonderful opportunity for a general practice lawyer with an interest in environmental protection. To learn more about how you can help, please contact Marty Eide – Board Trustee and an attorney himself – eidemart@comcast.net.



Photo Credit: New Jersey Youth Corps
of Phillipsburg

Volunteers during a fall tree planting in the meadow at the beginning of the Education Trail.

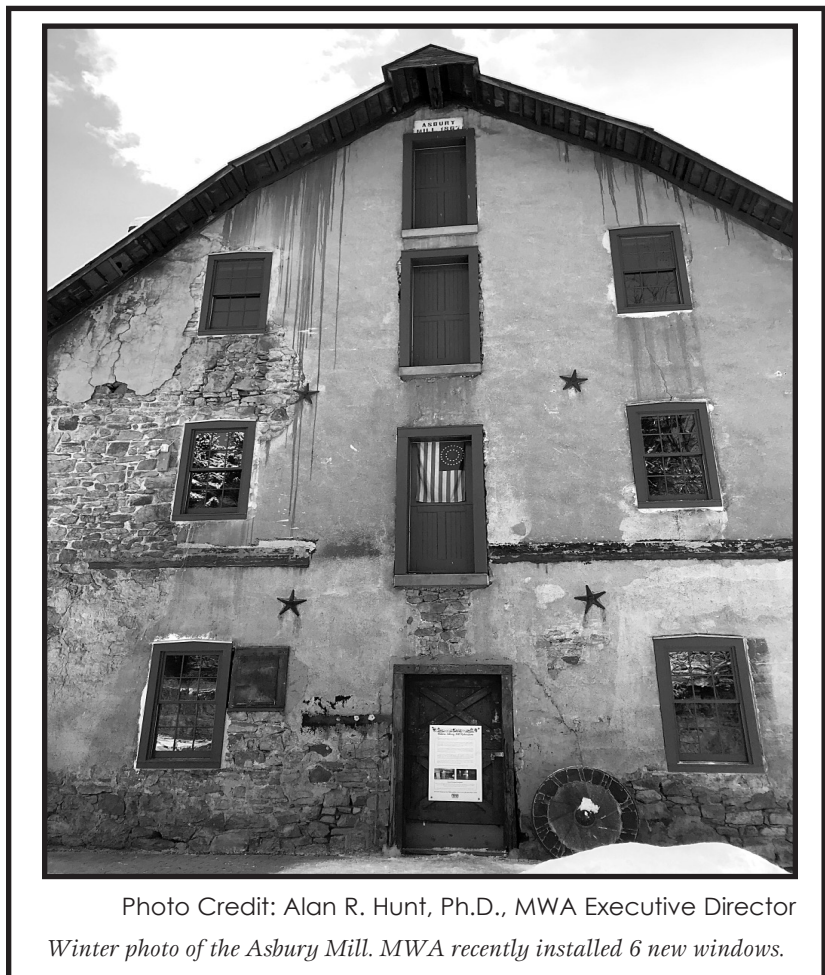


Photo Credit: Alan R. Hunt, Ph.D., MWA Executive Director
Winter photo of the Asbury Mill. MWA recently installed 6 new windows.

SAVE THESE DATES!

Thursday, March 21: Annual Members' Meeting, 6 pm at Hawk Pointe Golf Club. Light appetizers and desserts will be provided. This event is free to attend. Please RSVP by calling (908) 537-7060 or emailing karen@musconetcong.org.

Saturday, March 23 and Sunday March 24: River Watcher Trainings, 8 am – 4 pm. Join Nancy Lawler, MWA Water Quality Program Coordinator at MWA's River Resource Center (10 Maple Avenue, Asbury, NJ 08802) and learn about how to measure water quality on the Musconetcong River. Both sessions will include a biological training and a first-hand New Zealand Mudsail identification training. To register, email nancy@musconetcong.org.

Saturday, April 13: River Clean-up, 9 am. Dirty hands make a clean river. Pitch in and help clean up the Musky at various locations from Lake Hopatcong to the Delaware River. MWA provides t-shirts (while supplies last), bags, gloves, water, and granola. To sign up, please email ambassador@musconetcong.org.

Sunday, May 5: Run for the River, 8:30 am for registration. The course is a scenic loop. Runners will pass streams, pastures, historic buildings and the beautiful Musconetcong River on this mostly flat course. Meet at Asbury Fire Company, 410 Old Main Street, Asbury, NJ 08802. Registration fee is discounted if registered before April 19. Please register by visiting www.musconetcong.org/run-for-the-river. 🎧



NORTHWEST NEW JERSEY

Rivers Conference

Connecting Community, Ecotourism, & Environment

professional development credits available



SAVE THE DATE
March 30th, 2019

Centenary University
Hackettstown, New Jersey

NorthwestNewJerseyRivers.org



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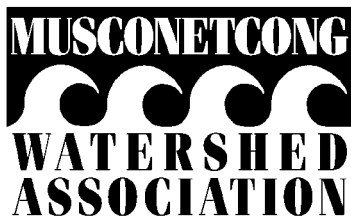
For more information or to register for any of these events, please email info@musconetcong.org or call (908) 537-7060, unless otherwise noted. MWA River Resource Center (RRC) is located at 10 Maple Avenue, Asbury, NJ.

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:

- | | |
|--|--|
| <input type="checkbox"/> \$20 Student | <input type="checkbox"/> \$100 Sustainer |
| <input type="checkbox"/> \$30 Family | <input type="checkbox"/> \$250 Steward |
| <input type="checkbox"/> \$50 Supporter | <input type="checkbox"/> \$500 Champion |
| <input type="checkbox"/> \$1,000 + Life Member | |

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

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