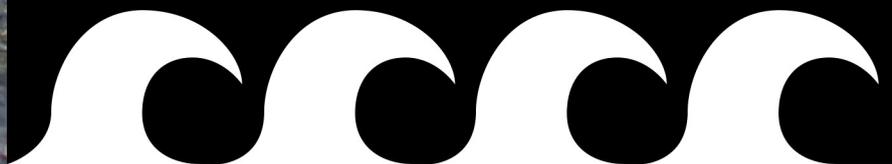




# 2019 Annual Review

**MUSCONETCONG**



**WATERSHED  
ASSOCIATION**

# A Letter from our Board President

## Board of Directors

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Tish Lascelle

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Cinny MacGonagle

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Thank you to all past board members!

Dear Members & Friends,

As I start my letter for the Annual Report each year, I reflect on MWA's accomplishments during the year. I am so proud of the impact that a small, determined group of staff, volunteers and members make. This year though, our accomplishments suddenly feel overshadowed, or small to me, compared to the COVID-19 crisis.

That's probably not an unusual reaction, given the immediacy and severity of this pandemic. And yet, I know that other races are won by persistent and proactive (if maybe less exciting) work. Our Microbial Source Tracking project (or as I think of it, our "poop project") is distinguishing animal contamination from human. It is not 'front page material', but it is an investment in the kind of river science that influences good farming practices, effective environmental policy and proper septic system maintenance.

The bigger picture, of course, is that this watershed is part of the Delaware River basin that provides drinking water for 15 million people. Did you know that the Center for Disease Control (CDC) has a Waterborne Disease Prevention Branch? Much is known about the risk factors for waterborne illness, but the overall occurrence of waterborne illness in the U.S. is unknown. In their most current report (2017) the CDC reported nearly 7,000 annual deaths for 13 diseases caused by pathogens that can be transmitted by water. Just last year, communities in our watershed lost nearly an entire summer of water recreation due to harmful algal blooms.

I believe MWA's core value to the communities we serve lies in our proactivity and in our passionate recognition that clean water is directly linked to human health. This past year, we made a lot of effort to understand and respond to proposed industrial and housing developments that would threaten our river water quality. Notably, we invested more of our resources into advocacy, creating a new Policy Director position, now filled by Alan Hunt. We need to get more 'upstream' on water quality issues that seem to be occurring with greater frequency, and we need your voices to make the arguments more compelling.

Today's proactive activities will be viewed as tomorrow's awesomeness.

Tish Lascelle

President, MWA Board of Directors



# A Letter from our Executive Director

## MWA Staff

### Executive Director

Cindy Joerger

### Director, Policy & Grants

Alan R. Hunt, Ph.D.

### Finance Manager

Brenda Berardo

### Watershed Programs

#### Coordinator

Kyle Richter

### Communications

#### Coordinator

Karen Doerfer

### Water Quality Program

#### Coordinator

Nancy Lawler

### Water Quality Field

#### Specialist

Christa Reeves



Dear Friends,

I started thinking about MWA's accomplishments in 2019 sometime in late February, when I began to prepare the remarks I thought I would make at our Annual Meeting. I was so looking forward to meeting more of you there and at our usual spring events. I still felt like somewhat of a newbie then, and frankly, was a little overwhelmed by the number of programs, activities and events this little organization was planning for the new year. MWA's staff is a tiny band of Musky-teers, just 7 of us then, and only three of the seven working full-time. "How do we do all of this?" I wondered.

The answer, of course, is "We don't!" Our incredibly dedicated Board of Directors, and you, as volunteers and donors, are the Mighty Musky-teers behind every effort and every success we are so proud to claim. As volunteers, you removed 3 1/2 tons of trash from the river last year, you attended public meetings and wrote letters to oppose development projects that threaten water quality and aquatic habitat in our watershed, and you helped collect the water quality and macroinvertebrate data we regularly provide to NJDEP. Data, by the way, that helps drive decisions like the recent designation as Category One waterways of 600 new miles of rivers and streams across the state, including in the Musconetcong River Watershed, Mine Brook, Lubbers Run, Scout Run, and Cowboy Creek.

As donors, your support was just as important as your volunteer contributions last year. We receive grant funding that provides partial support for most areas of our work, but those grants almost always come with mandatory match requirements. And what we can't match, we don't get! When you give an unrestricted contribution, you are helping us to leverage funding that we wouldn't otherwise have.

Years of working with quiet determination are paying off. We completed the exterior restoration of the Asbury Mill, paving the way to transform this historic building into new offices, a public meeting place and an Interpretive Center. Our Water Quality Monitoring staff helped scientists at Montclair State University to complete and publish a study on bacterial pollution in our River, using DNA-tracing technology to reveal the predominate source of contamination that threatens both human and aquatic health. For Camp Musky, 2019 was our best year ever! On the whole, it was a year of consolidating gains and recognizing our potential.

When I joined this team in January, it looked like the sky was the limit! And then, Coronavirus came to town. And we, like all of you, hunkered down, worried about our own health, the health of our loved ones, and the health of our nation and the world. I fretted when we canceled the Native Plant Sale and the Annual River Clean-up – events that demonstrate our passion for clean water and a natural environment. I worried about lost revenues, and the loss of regular interaction with all of you.

Next year in this space, I'll tell you the story of our resilience during this troubling time. This year, at this time, my message is simply this: we are still here, working from home but working harder than ever, just as passionate about our mission of protecting the outstanding natural resources in the Musconetcong River Watershed, just as connected to all of you, grateful to be doing jobs we love, and appreciative of your partnership and support.

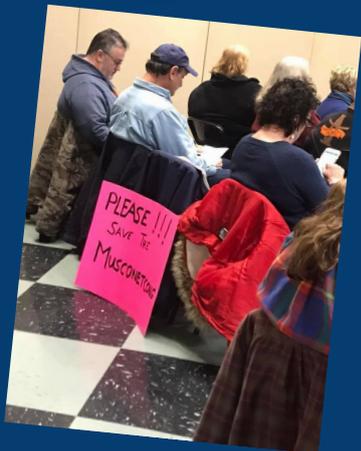
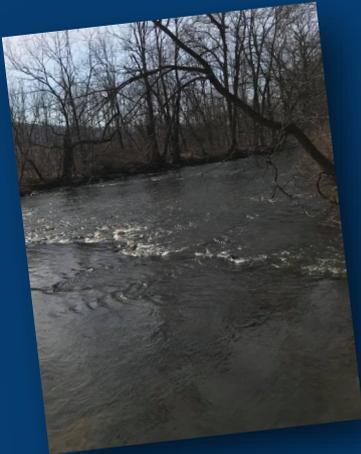
Wishing you and all those precious to you well,

Cindy Joerger

Executive Director



# Protecting the River Means Policy



**New Jersey currently has no process to identify and designate rivers for recreational uses. Think about all the times you have paddled, swam, or tubed the river. Those uses are not protected. MWA is working to increase protections for the Musconetcong River and its tributaries.**

MWA has engaged in policy over its history in a variety of ways; the most memorable being the 16-year long pursuit of National Wild & Scenic River designation, involving local officials and cultivating national champions in Congress. Our work with Congressional offices helps MWA secure funding for river restoration efforts, including the Beatty's Mill floodplain restoration project or the Warren Mill dam's eventual removal.

This past year, MWA began a partnership with 5 other organizations on a project called 'Great Waters' with the goal of preserving recreation on the Musconetcong. MWA is also working with partners to protect the headwaters of the River, prevent the undermining of the values that led to the establishment of the river as Wild & Scenic, and protect the cold groundwater that flows into the river to maintain the excellent trout habitat that many of us enjoy. These resources cross county and municipality boundaries, so state policies are key. Funding from the William Penn Foundation, Patagonia, and the Environmental Endowment of NJ have helped us expand our ability to engage in policy. Through public support on ballot referendums to support land conservation and historical restoration, we have been able to secure funding from the NJ Green Acres Program for the Musconetcong Island Park Project and from the NJ Historic Trust for the Asbury Mill restoration.

MWA members and local residents have been following 6 development projects along the River. We review these projects and their potential impact on the Musconetcong with a focus on science. We focus on those with the most significant water quality impacts, like a sewage plant or a thermal discharge, and have raised funds to research the impacts from these types of developments in our watershed.

People from across the state visit the Musconetcong River. We pride ourselves on returning public benefits through educational programming, recreational trips, increasing public access to the river, and interpreting the region's cultural and historic significance. That takes work with policy, partnerships, and community support.

# Delaware River Watershed Initiative



The Musconetcong is the largest river in New Jersey to drain into the Delaware River. MWA works to protect the clean waters that flow to this major drinking source.

Since, 2014 MWA has been a partner in the Delaware River Watershed Initiative (DRWI) a collective of non-profit organizations in New Jersey, Pennsylvania, New York and Delaware working together to restore waterways, protect forested headwaters, encourage responsible land use and farm management, create access to nature, and ensure clean water for all. Through the DRWI, MWA collects valuable water quality data to inform restoration work, partners with municipalities to improve stormwater management, and works to restore streams to reduce pollution and improve habitat for native fish, birds, and other wildlife.

Last year, MWA worked on the removal and restoration of the Beatty's Mill dam located in our northern watershed, in Hackettstown. The dam, on East Avenue, was breached and unsafe. Our project at Beatty's Mill aims to help improve water quality in this area. It will include a floodplain restoration, streambank stabilization, and removal of the 4-foot high stone and rubble dam remnant, allowing the river to return to its natural channel and prevent the streambank from being washed away.

We plan to complete this project in 2020, but to stay up-to-date, visit our DRWI page at [www.4states1source.org](http://www.4states1source.org).

## Beatty's Mill Projected Outcomes



Water quality monitoring at 4 New sites



20% reduction in total suspended solids



2.5 acre floodplain restoration



0.15 miles of stream bed restoration



0.15 miles of stream bank stabilization



Improved habitat for Eastern Brook Trout and American Eel.

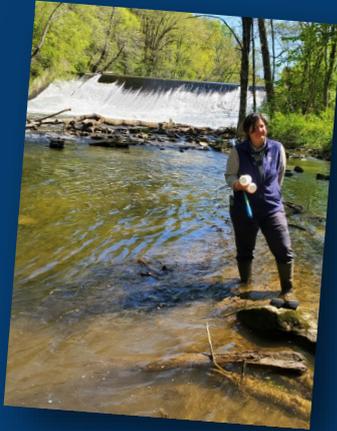


Removal of structure blocking river flow



Improvements in pH, temperature, and dissolved oxygen

# Water Quality Program



MWA has been working with partners from Montclair State University, Trout Unlimited (TU) and North Jersey Resource Conservation and Development (NJ RC&D) to monitor bacteria levels in the Musconetcong River and the smaller streams that flow to it. In the past 10 years, stream restoration work and changes in best management practices on local farms have shown to greatly reduce bacteria levels in West Portal Brook. While livestock continues to be a source of bacterial pollution, the primary source is malfunctioning human septic systems along the Musconetcong River. MWA plans to work with local policy officials on how to reduce human bacterial contamination in the River.

Under a grant from The Watershed Institute, and as a member of a new state workgroup, Nancy Lawler spread the word about the invasion of the New Zealand Mudsnail (NZM) in hopes of limiting its spread. She developed new protocols for cleaning waders, fishing gear, and boats; and trained River Watchers to survey for NZM at eight sites. MWA posted flyers about NZM at fishing access points in the lower Musconetcong River, directing anglers and boaters to a new MWA NZM information webpage. MWA and partners found that NZM has greatly increased at sites where it was found in 2018, and has spread into the Delaware River, but none have been found yet upstream of Bloomsbury. NZM is now the majority species found in macroinvertebrate samples at affected sites.

As part of an ongoing five year study, MWA assessed fish habitat and water quality at the old Hughesville dam site, with partners U.S. Fish and Wildlife and Princeton Hydro. The data collected shows aquatic life is starting to recover in areas where sediment covered the stream bottom behind the dam – this process will likely continue for many years. Two new sensors were installed at Hughesville and Bloomsbury to help continue to inform this study. They take temperature, depth, conductivity, and turbidity readings every five minutes. They were installed to assess water quality before and after dam removals planned in this area.

MWA continued to work with Stroud Water Research Center and the Academy of Natural Sciences to collect data from eight sites in the Musconetcong and Lopatcong Watersheds as part of the Delaware River Watershed Initiative. This work has led to new opportunities to work with TU and NJ RC&D to access restorations and best management practices going forward.

# Restoring the Asbury Mill



## Bringing history to life through preservation

The hard work of our staff, contractors, and partners allowed MWA to complete phase two of weatherproofing the Asbury Mill. The Mill now has insulated windows with a period-correct appearance. All of the failing stucco and mortar was chipped from the walls and repointed. Three sides of the building were stuccoed, leaving the west side with its original stone appearance, and the exterior components of the septic system were installed, awaiting hookup to the Clivis Multrum composting toilet system that will process the building's wastewater.

MWA hosted four tours to reintroduce this historic building to the public and our grantors. We hosted an evening at the annual conference of the Society for Preservation of Old Mills as well as guided tours and open houses for local officials and our Asbury friends and neighbors.

The Annual Mill Dinner at Hawk Pointe Golf Club honored Steve Riddle of Asbury Carbons with MWA's Friend of the River Award. Mr. Riddle gave a presentation of what Asbury Carbons has accomplished through their 125 year history. The Riddle Family directed the donation of the Mill to MWA in 1999.

Positive feedback from our community has served to encourage us to design useful, comfortable, historic space to meet our educational needs and to serve the public's interests. Last year's charrette with local officials and interested members of the public provided valuable guidance for our architect as he develops use plans for the building.

Thanks to grant funding from the NJ Historic Trust, Warren County and individual contributors, the exterior of the Asbury Mill is beautiful.

The next step in our adventure is to create functional education and office space so we can continue to grow and expand on our mission. It has been gratifying to receive so much support for what we have done for the appearance of the area. Now we are moving forward to build a practical community resource.



# Education Programs



## Camp Musky

Every summer the River Resource Center is buzzing with the sounds of children playing, laughing, learning, and developing a deep love for the Musky. Summer 2019 was no exception. MWA hosted 57 campers over five weeks for our annual Camp Musky, environmental day camp, making it one of the busiest summers yet!

Campers spent their days, exploring different ecosystems in our River Resource Center property, including woods, wetlands, ponds, and of course, the river. Campers hopped through mud puddles, learned the basics of birding, built forts, and explored the beauty of nature in our watershed.

**“I like swimming in the river and being in nature. I like being with friends. I like to use my binoculars to see the different butterflies because they have pretty wings.”**

**-Trailblazer camper, age 8**

## In-School Education Program

Stoneflies, Mayflies, and Gilled Snails. What do these three things have in common? Ask one of the 400-plus students who participated in MWA's In-school Watershed Education Program, and you are sure to get the correct answer!

All three are macroinvertebrates (organisms without a backbone) and are all sensitive to pollution. If you find these tiny creatures in the river, you likely have a healthy stream!

The MWA Watershed Education Program teaches students about fresh water ecology, ground and surface water characteristics, and the historic and geological features unique to the limestone valleys in the Musconetcong and nearby Delaware River tributary watersheds. Our hands-on program promotes a sense of stewardship for the environment that is rooted in the knowledge of science, local ecology and history and gets students out in the Musconetcong River and streams close to home.

## Education Programs Continued



### Adult Camp Musky

There is great satisfaction in igniting children to care about our environment because they own the future, but in 2019 we wanted to deepen environmental engagement with adults – who more directly own the ‘right now’. Unlike children, adults are voters, landowners, consumers, healthcare providers, teachers, and business leaders. They hold the power and means to keep protecting the natural resources our economy and quality of life depend on. And yes, we thought most adults need a good excuse to ‘unplug’ also!

Modeled after Camp Musky, we offered eight one-day programs for teens and adults to explore nature like they were kids again. In “Huck Finn for a Day”, campers were in the river turning over rocks, learning about macroinvertebrates, and exploring river bank ecology from kayaks. The popular “Occasional Nature Warrior” camp taught basic suburban forest survival. Creatively-inclined campers joined “Watercolor the Watershed” and “I Spy With My Camera Eye” to watercolor and photograph nature.

MWA plans to build on the success of our most popular Adult Camp Musky programs and also try out a few new ways to reacquaint “campers” with nature.



### New Event



### Music Night at the Lodge

New for 2019, MWA invited members, locals, and guests to enjoy a performance at The Lodge at River Valley in Asbury (Warren County). This scenic venue is located right on the Musconetcong River. For our music night, guests were able to bring their own bottle and enjoy the eclectic sounds of The Coyotes and Friends. This was such a successful evening that we plan to continue in 2020 and beyond. We thank Richard Cotton for donating the venue and The Coyotes for donating their time.

## More Events and Fundraisers



### Run for the River

The 19th Annual Run for the River was a rainy Sunday morning, but runners still came out to show their support. Thank you to all of our returning participants, Gold and Silver sponsors, and volunteers who make this event MWA's largest fundraiser to date.

### River Cleanup

MWA had another record-breaking River Cleanup last year. A total of 448 volunteers cleaned up 357 bags of trash and recyclables, 33 tires and other larger items, like couches, lawn furniture and car parts along the Musconetcong River. Volunteers were stationed throughout the watershed from Lake Hopatcong down to where the Musky meets the Delaware River.

### Wine Tasting on the Musky

Guests enjoyed a beautiful fall afternoon along the Musconetcong River this past fall. MWA's Wine Tasting is quickly becoming one of its largest annual fundraisers thanks to returning guests, beautiful donated tricky tray baskets, the popular rubber duck race, and the wonderful music provided by the Caren Kennedy Duo.

### Film Festival

2019 marked the second year that MWA hosted the Wild & Scenic Film Festival On Tour at Centenary University. We were joined by a panel of speakers who spoke on the importance of eco-tourism and recreation in the Musconetcong Watershed. Partner organizations set up tables to teach students and guests the importance of stewarding our shared watershed and river resources.

### Native Plant Sale

MWA hosted its Annual Native Plant Sale at our River Resource Center. Locals and patrons chose native perennials, shrubs, grasses, ferns, and trees to adorn their property and improve the watershed.

# Financials

## The Musconetcong Watershed Association is a registered 501(c)(3) non-profit organization.

We rely on grants, fundraisers, memberships, and donations from environmentally conscious individuals who support local water quality... People like you! Below are our financial highlights from 2019. Financial reports are available upon request by contacting the MWA Executive Director. Please note, as of printing, these reports are un-audited. Fully audited reports will be available by the end of the year.

### 2019 Sources of Funds

Program Revenue	
Government Grants	\$613,194.48
Non-Government Grants	\$272,861.68
Contributions	
Memberships	\$19,983.00
Donations	\$28,533.72
Events	\$37,713.95
Earned Income	\$21,937.50
<b>Total</b>	<b>\$994,224.33</b>

### How Funds Were Spent

Program Services	
Policy	\$82,603.00
Water Quality Monitoring	\$154,328.37
Watershed Management	\$70,448.39
Education	\$48,840.78
Dam Removal	\$31,902.62
Program Management	\$412,751.48
Fundraising	\$28,379.04
General & Administrative	\$167,936.30
<b>Total</b>	<b>\$997,189.98</b>

# Volunteer Support



## Thank you, volunteers!

Volunteers provided **4,015** total hours of service, which is equivalent to **\$110,270** of in-kind support for the MWA. Volunteers with different skills and backgrounds were able to help us with our native garden, river watcher program, river cleanup, and so much more. This support also helps us meet grant reporting goals and matching funds requirements.

## Cover Art

Thank you to Jeremy Travers for allowing us to use his photo for the cover of our 2019 report. Jeremy is a volunteer river watcher for the MWA and an avid kayaker and photographer.





The Musconetcong Watershed Association (MWA) is an independent, non-profit organization dedicated to protecting and improving the quality of the Musconetcong River and its Watershed, including its natural and cultural resources.

[www.musconetcong.org](http://www.musconetcong.org)

Cover Photo: Jeremy Travers