

September 27, 2022

Dear Friend of the Watershed,

Greetings from The Watershed Institute. I hope this letter finds you well and that you enjoyed the last weeks of summer. All of us at the Watershed are profoundly grateful for your generosity, engagement, and trust in our work. I wanted to take this time to provide you with an update on our activities, programs, and impact. Our staff have been busy locally, regionally, and statewide.

Our mission has not changed since 1949: keeping water clean safe and healthy through conservation, advocacy, science, and education. However, the threats to clean water are becoming more complex and more challenging. Polluted stormwater runoff, harmful algal blooms, toxic "forever chemicals" like polyfluoroalkyl substances (PFAS), pharmaceuticals, and microplastics in our water are just a few examples.

It is becoming increasingly evident that climate change is the defining issue of our time and organizations like The Watershed Institute are needed more than ever. Earth's temperature is rising, and it is having a profound and potentially permanent impact on the world we live in. While New Jersey alone cannot halt rising global temperatures, increased flooding, and droughts, we can all take steps to lessen our impact and work towards a better future.



Water monitoring stations installed in the Assunpink Creek.

With you as a partner, The Watershed Institute's scientists, advocates, and educators, supported by hundreds of volunteers, are taking the lead in standing up to ill-conceived proposals like the failed PennEast Pipeline and promoting solutions to the environmental challenges of our day.

Watershed Science

Monitoring our water is even more important than ever as polluted stormwater runoff and Harmful Algal Blooms (HABs) continue to be a threat to clean, safe and healthy water. HABs are cyanobacteria that can emit toxins in the water that are dangerous to

people, pets, and wildlife. They thrive in nutrient rich, warm water—conditions that result from polluted stormwater runoff and hot weather.

StreamWatch, our volunteer water quality monitoring program, is celebrating its 30th year of gathering data to help analyze and understand the quality of New Jersey's waters. Our 100-plus team of StreamWatch

volunteers spend thousands of hours collecting data that is shared with state and local regulatory agencies and other policy-makers to inform decisions about where to deploy environmental restoration projects.

The Watershed Institute is expanding *StreamWatch* into Trenton and other under-resourced areas that we have not previously monitored. We are engaging with residents of these communities to monitor their waterways and work with them on strategies to protect them. We'realso launching a new partnership with area schools to bring *StreamWatch* to the classroom. Engaging students in the science around stream monitoring and efforts to address the root causes of water pollution is an exciting new chapter of our work that I look forward to telling you more about in the coming months.

Watershed Advocacy

In 2020, Governor Murphy signed an Executive order launching NJ PACT (New Jersey Protecting against Climate Threats), a regulatory reform effort to avoid, mitigate, and adapt the state to the effects of climate change.



Jim Waltman speaks at press conference on NJ PACT.

Unfortunately, NJPACT has yet to be adopted due to pressure from commercial and residential real estate developers. The Watershed and fellow organizations are voicing disappointment in the Governor's inaction and urging everyone to get involved by engaging the Governor's office and the legislature in support of the regulations' adoption.

The Watershed Institute speaks out for you, our members, on issues you care about. Connecting the data our scientists collect to our statewide and local advocacy gives The Watershed Institute strong leverage in pressing for strong environmental laws and ordinances. For example, quantifying the amount of runoff a new development will

produce can sway a municipality concerned about flooding and can halt a poorly planned residential or commercial development.

Because New Jersey is a "home-rule" state, and land use decisions are made on the local level, our advocacy must be deployed at the municipal level, not just with the state legislature. Municipalities have the power to define how and when growth should occur. Our team spends countless hours educating elected officials and municipal staff on strategies to reduce the amount of stormwater in their towns, offering real solutions based on our experts' experience. Trainings, conferences, and webinars along with one-on-one visits provide important tools on how to mitigate stormwater, flooding, and water pollution. We know we are having an impact as more towns are taking action by adopting strong ordinances that mandate green infrastructure to capture stormwater and making other improvements to building codes.

One of the issues that has risen to prominence is the increase in applications to build large warehouses in suburban and rural communities. These warehouses and the accompanying parking lots create enormous amounts of hard surfaces that are impervious to water, generating polluted stormwater runoff that causes flooding and degrades water quality. We are often at municipal planning board meetings testifying in support of measures that can mitigate the negative impacts of such development projects or in outright opposition to these developments.



Floating Wetlands at Rosedale Lake.

Innovation

You may have seen the news lately that the extremely hot weather is causing Harmful Algal Blooms to proliferate in many waterways in our state. We are calling attention to this issue because HABs can be dangerous to people, pets, and wildlife, threaten our drinking water supplies, and shut-down recreation.

Your support has enabled our scientists to spearhead a very promising new method of combatting HABs: floating wetlands. Our model floating wetlands, installed successfully at an

East Windsor retirement community as well as Rosedale Lake in Hopewell Township, are planted with iris, willows and other vegetation with long roots that grow into the water column. The plants soak up the nutrients that feed algae blooms, thereby mitigating the problem.

Preliminary data from the floating wetlands show that these vegetated islands are making a positive impact. We will continue to demonstrate this cost effective and environmentally friendly way to minimize HABs. We are also educating people about why HABs start and how to minimize the issue by reducing the amount of nutrients (e.g., lawn fertilizers) that make their way into nearby waterways.

Our demonstration green infrastructure in Hopewell Borough also continues to flourish, and we continue with our reforestation planting of trees on our 950-acre Watershed Reserve near Pennington.

Watershed Education

The Watershed Institute provides a wide array of educational programming for professionals, volunteers, children, teens, and adults. Our programs reach a broad audience that ranges from municipal engineers and planners, to landscaping professionals and schools.

A new program that we've pioneered during the pandemic teaches volunteers how to engage in advocacy for water protection at the municipal government level. The program has built a growing cadre of trained and engaged watchdogs to keep on top of pending land use decisions.



Children enjoying summer camp.

Our Watershed Nature Camp was a fantastic success this summer after two years where enrollment was dramatically reduced due to the pandemic. Around 100 campers joined us every day for eight weeks of fun, learning, friendship and bonding with nature. Thanks to our members and support from several corporations and foundations, approximately one-quarter of our campers received financial aid and free transportation to attend camp this summer.

STEM programs for schools (k-12) are being scheduled for the upcoming school year. These hands-on, inquiry-based lessons are aligned with the Next Generation Science Standards to help prepare students to think critically and solve problems. We are broadening our relationships within the Delaware River Watershed and offering programs for elementary, middle, and high schools from Trenton.

As always, numerous events, programs and webinars take place throughout the year, bringing children, families and adults to the Center and Reserve for learning and fun. More than 30,000 people enjoy our building, walking trails, boardwalk, and Butterfly House each year.

Our Butterfly Festival on August 6 also returned in earnest this summer, with nearly 2,000 guests enjoying fun and educational exhibits, programs, games, and more. We were able to manage crowds by offering timed visits and keeping our mask policy in place for guests inside the building. I am looking forward to our FEST on October 1st, to be held outside under our festive tents.

Watershed Center & Reserve

We are poised to complete several exciting capital projects later this year and during the first half of 2023. A 0.6 mile, fully accessible boardwalk loop trail will be completed through woods, forests, and meadows on the Reserve. Approximately one-half of the boardwalk is now complete and is already delighting visitors with mobility challenges and families with children in strollers.

Our consultant has completed the design for a new nature play garden, which we are calling Tree Frog Trail to reflect the healthy population of those tiny creatures near the site. The area has been designed to engage and teach younger children about nature and will feature elements to promote playful exploration of water, structures for climbing, a sensory garden, and other areas for learning.

We're also working with an exhibit designer to create new engaging educational features to complement the existing exhibits in the Watershed Center. The new exhibits will help teach about watersheds, the water cycle, how climate change and land development affect these, and what we can do to mitigate our impacts on the environment.



The Watershed received a grant from the New Jersey Historic Trust to repair and stabilize our large white barn, a first step towards our vision of a reconstructed and repurposed barn that can provide additional space to host programs and events. Our beloved Wargo Pond, which has been drained due to a broken water control structure, has finally received the necessary permits from the New Jersey Department of Environmental Protection to begin repairs. With the pond drained, we are taking the opportunity to dredge the sediment that has accumulated during its 50-year life. The work is on track to be completed in early 2023, in plenty of time for the 2023 camp season.



Volunteers cleaning up a stream in the Assunpink.

New Partnerships

As we now work in a portion of the Delaware River Watershed, including Trenton and surrounding communities, we are forging new relationships with community groups to understand and help with longstanding environmental issues. By listening, we are learning a lot about the hazards these communities face, such as lead in the soil and pipes, illegal dumping, and increased flooding and water pollution due to the large

amounts of impervious cover from historic industrialization along the Assunpink Creek. In addition,

landfills, hazardous waste sites, and other industrial facilities are most often located in communities of color. Watershed staff have organized and participated in stream clean ups, and we are helping to train community groups and residents how to be strong advocates for their communities.

The Watershed Institute staff have been able to make a positive impact on the environmental issues we all care about, to share knowledge, and to offer a quiet respite on our peaceful reserve.



New green infrastructure in Hopewell.

All of us at the Watershed are grateful for your loyal and generous support. I hope that you and your family stay safe and healthy and that I see you soon at the Watershed Center and Reserve.

With gratitude,

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Jim Waltman **Executive Director**