WELLSPRING

A publication of The Watershed Institute. Keeping central New Jersey's water clean, safe, & healthy since 1949.



Punishing heat. Ferocious floods.

Terrifying fires. These are stark reminders of the pressing need for action to combat and respond to climate change-the single greatest threat to clean water and healthy watersheds.

One of the most alarming consequences of global warming is the alteration of rainfall patterns. Heavy downpour events have been increasing in intensity, causing devastating flooding in regions like New Jersey. The combination of increased rainfall and continued residential and commercial development has led to more stormwater runoff, resulting in more flooding and water pollution. To address this problem, we need new approaches.

First, we need more aggressive restoration strategies to address the polluted stormwater runoff being emitted from existing development, much of which was built long before there was any concern or attention to mitigating this problem. Watershed advocacy is advancing this goal.

Historically, our environmental programs have been oriented towards two strategies: protecting the last remaining natural areas, habitats, stretches of wild rivers, and so forth; and reducing the negative impacts from new land developments.

That work needs to continue (and be strengthened and accelerated!) but we also need a much greater focus on the restoration of degraded environments. Most of the state's streams and rivers fail to meet the Clean Water Act's water quality standards. Our current strategies aim to prevent the problem from getting too much worse but we're not going to restore polluted waterways or address our flooding problems this way.

We need more restoration of stream buffers and flood plains to recreate the natural flood storage capacity that was destroyed when we altered these areas. We need to move people away from the most dangerous, flood-prone areas and we need to retrofit our built environments with green stormwater infrastructure. We also need more attention to addressing legacy contaminants from old industrial activity, like the lead contamination of soils in the East Trenton neighborhood near the Assunpink Creek.

After years of advocacy from The Watershed Institute, The New Jersey Department of Environmental Protection (NJDEP) has taken an important step. The Department's new MS4 permit (Municipal Separate Storm Sewer **System)** requires towns to create Watershed Improvement Plans to address known water pollution problems, not just limit additional pollution. The Watershed is helping towns implement the new permits.

Second, policymakers need to embrace regional, watershed-based planning and problem solving. Such approaches will be far more effective and efficient than the town-by-town approach that is more often the norm. The Watershed Institute is convening regional meetings to help towns work together across municipal boundaries.

Third, we need to stop thinking about our environmental challenges as static problems because climate change is making these issues increasingly more difficult. More intense storms create more flooding and water pollution. Solutions that only address today's problems will fail to meet tomorrow's.

Here again Watershed Advocacy is making a difference. NJDEP's **Inland Flood Rule** requires that stormwater mitigation strategies and protections against new development in floodplains are geared towards addressing the larger storms projected for the future as a result of climate change—another new policy successfully advocated by The Watershed Institute.

The Watershed Institute is developing a **new Strategic** Plan that will continue and expand our role as a center for learning and leadership on watershed health and water resources protection. Watershed restoration, regional action, and resiliency in the face of climate change are major focal points of our plan. The plan also embeds justice, equity, diversity and inclusion in our operations and programming, and envisions our Watershed Center and Reserve as exemplars of environmental **stewardship**, teaching platforms that connect more people to the joy of nature, and an educational model of a carbon negative campus. You'll hear more from me about our new Strategic Plan in the coming weeks and months.

Your generous support has made our work - and our success - possible, and we are grateful for your continued partnership in environmental protection and restoration. Together, we can work towards a more sustainable and resilient future for our communities and the planet.





Hundreds Gathered at Trenton River Days to Celebrate the Delaware

On Saturday, September 16, hundreds of people gathered at South Riverwalk Park to enjoy the beautiful weather at Trenton River Days, a free event that celebrates the history, culture, ecological, and recreational values of the Delaware River.

The event featured canoe and boat rides. food, live music, hayrides, fly fishing demonstrations with Trout Unlimited. crafts, and other activities, including educational games and exhibits for handson fun.

Our Watershed staff had large tanks filled with varieties of fish that inhabit the Delaware River. We also explored the water quality of local waterways and learned how data is gathered and used.

At various times throughout the day, Watershed staff tagged and released Monarch butterflies to the amazement of young and old alike.

Trenton River Days is a partnership of The Watershed Institute, Mercer County Park Commission, Tulpehaking Nature Center, Friends for the Abbott Marshlands. The Alliance for Watershed Education of the Delaware River, Mercer County, ArtWorks, and the City of Trenton.



Trenton residents get hands on experience with the fish that live in the Delaware River during Trenton River Days. The Watershed Institute is a proud sponsor of this annual community event.

The Watershed Institute Welcomes **Ayanna Johnson to Expand Programs** in Greater Trenton

The Watershed Institute is delighted to announce the appointment of Ayanna Johnson, a Ewing Township native, as the Watershed's Urban Education Manager. In her new role, Ayanna will spearhead the organization's educational programming for schools and community groups in the Greater Trenton area – a priority of the Watershed's New Strategic Plan.

"Ayanna's exceptional leadership, passion, and dedication to environmental justice make her the ideal candidate to lead our educational initiatives," says Jim Waltman, executive director of The Watershed Institute. "We are confident that Avanna will create meaningful connections with nature for more young people and inspire them to become lifelong stewards of the environment."

Avanna's early experiences with The Watershed Institute during her childhood left a profound impact on her, igniting her passion for the environment. She recalls thinking of The Watershed Institute as "a magical place" that she experienced on field trips. As a Girl Scout, she achieved the prestigious Gold Award and served as a camp counselor at Ewing Rec Camp, further deepening her connection to nature and community engagement.

Ayanna pursued her academic journey at Rowan University in Glassboro, where she earned a Bachelor of Arts degree in Environmental and Sustainability Studies. She also excelled on the Women's Basketball Team, breaking two records, earning the title of Defensive Player of the Year and serving as team captain for two years.

During her time at Rowan, Ayanna served as the president of the school's chapter of the sorority



Ayanna Johnson is helping to expand Watershed program offerings in the Greater Trenton Area enablina more students to experience the transformative power of nature and inspiring a love for the natural environment.

Sigma Gamma Rho Inc., where she further realized her commitment to environmentalism, social and environmental justice. One of her sorority's initiatives is a program offering swim lessons to children in Black and Brown communities recognizing a disproportionate percentage of drownings in those demographics.

"I am thrilled to be a part of The Watershed Institute and aspire to make it a household name in every community," says Johnson. "Through my work, I hope to provide all people with access to the incredible opportunities the Watershed offers and enable them to experience the transformative power of nature and our interconnectedness with the natural world."

Sharing our Expertise

Watershed Fest 2023: A Night to Remember

Under the enchanting glow of a moonlit evening, more than 300 dedicated friends of the Watershed came together for a memorable night of celebration and philanthropy. The occasion? The much-anticipated Watershed Fest, an annual event that serves as the organization's largest fundraiser of the year. With hearts full of enthusiasm and a shared commitment to preserving our natural world, attendees made this year's Fest an incredible success, raising approximately \$200,000 to support the Watershed's critical work.

Held at the Watershed Reserve. the event was a night of unity and purpose, where passionate individuals from diverse backgrounds joined forces to contribute to a common cause: the conservation, advocacy, science, and education programs that are vital to keeping our water clean, safe, and healthy.



Thank you to all our donors and volunteers who make it possible for us to fulfill our mission of keeping water clean, safe, and healthy.

Watershed Employees are Expert Speakers at Area Conferences

The Watershed Institute is home to some of the leading experts in watershed policy, education and stewardship. Our employees are frequently called upon to present their expertise at conferences around the state and beyond.

This fall, our staff have been particularly busy making presentations at:

8th Annual Adirondack Champlain Regional Salt Summit

Assistant Director of Science Erin Stretz was a featured panelist, contributing to a discussion on "Engaging Stakeholders and Businesses."

NJ Science Convention

Education Director Jeff Hoagland spoke about our programs and specifically offered teachers the opportunity to enroll in our StreamWatch Schools program.

11th Annual Coalition for the Delaware River Watershed Forum

Lucia Middleton and Pri Oliveira spoke about issues related to justice, equity, diversity and inclusion in the environmental field.

NJ Institute of Local Government Attorneys

Policy Director Mike Pisauro spoke about the issues facing municipalities with the implementation of the Residential Site Improvement Standards (RSIS) and the Municipal Separate Storm Sewer Systems (MS4) permit.

Association of New Jersey Environmental Educators (ANJEC) **Annual Conference**

Executive Director Jim Waltman spoke about the actions that municipalities can take to protect their water supplies.

NJ League of Municipalities

Policy Director Mike Pisauro spoke about the ways municipalities can meet the new DEP Municipal Separate Storm Sewer (MS4) requirements.

Lead NJ

Executive Director Jim Waltman spoke about climate change and its impact on flooding and water pollution.

Don't Miss Our Webinars

Did you know that The Watershed **Institute offers informative webinars** throughout the year?

"Watershed Wednesdays" are programs offered on Wednesdays, designed for the public. Topics include subjects that members of the community would find

Scan here for our complete calendar of upcoming events.



interesting and useful, such as Lead in Drinking Water, Art in Nature, or Environmental Advocacy. "Technical Fridays" are classes offered on Fridays that are geared more for people who have a background in water quality, engineering, or law. Topics include water treatment, chemicals in water, and environmental legislation. While these classes are more technical, they are open to anyone who is interested in attending. All of these webinars are listed on the calendar on The Watershed Institute website www.thewatershed.org and are promoted in our weekly enews.

The Watershed Institute and **Sustainable Princeton Teamed Up to Teach Landscapers about Green Infrastructure**

About 15 professional landscapers from the Princeton area gathered at the Watershed Center to learn about installing and maintaining Green Stormwater Infrastructure, which allows yards to absorb runoff from buildings, driveways, and roads. The program, offered entirely in Spanish, was a joint effort between The Watershed Institute and Sustainable Princeton.

Lucia Middleton, the Watershed's community water advocate, commented, "Bringing accessible information about green infrastructure to the landscaping community is vital as we work to combat the climate related issues of flooding and challenges to our water quality like harmful algal blooms. We will be sharing this program design and lessons learned so that other communities across the state can learn from this successful program."

Green infrastructure projects are designed so rain has the time and the space to soak into the soil before the stormwater runoff reaches streams, rivers, lakes, and other waterways. These landscape features also add biodiversity and natural beauty. The Watershed Institute was instrumental in the adoption of New Jersey's green infrastructure rule, which requires the use of natural strategies to address the urgent problems of polluted stormwater runoff and flooding. Professional landscapers are often the people who install and maintain green stormwater infrastructure systems and many of these workers speak Spanish as their primary language.



Más Agua, Más Problemas - Lucia Middleton teaches Spanishspeaking, Princeton-area landscaping professionals about the environmental and aesthetic benefits of installing and maintaining green infrastructure systems.

Empowering Communities for Environmental Advocacy: The CWAP Program



Annette Loveless of Lawrence Township was a member of the first session of the CWAP program and now she chairs the Environmental and Green Advisory Committee for Lawrence Township.

During the COVID-19 pandemic, a challenge arose for many organizations - how to keep volunteers engaged and active when they couldn't physically come together. This challenge led to the birth of the Community Watershed Advocacy Program (CWAP), a unique initiative aimed at training community members to become effective advocates for their local environment and waterways. Surveys of our members also identified a need: many community members, from teenagers to senior citizens, were not familiar with the inner workings of local government.

CWAP's program components were carefully designed to bridge this knowledge gap and empower participants to make a difference. Participants learn the basics of how local government operates, from navigating municipal webpages to understanding the roles of elected bodies such as Environmental Commissions, Planning and Zoning Boards, and municipal staff. They also delve into essential topics such as researching the health of local waterways, understanding Environmental Justice, and learning how to read site plans for proposed developments.

The program's impact has been nothing short of impressive. The first CWAP cohort kicked off in the fall of 2020, followed by subsequent cohorts in the spring of 2021 and the winter of 2022. A session customized for the Trenton Community concluded in September 2023. Training sessions continue, with a cohort currently in process. The commitment to annual training and the expansion of CWAP for Trenton are testament to its success.

Since its inception, CWAP has trained more than 100 community members hailing from 44 different municipalities. Beyond adult participants, the program has also extended its reach to high school students in Trenton, Hightstown, Hamilton, and Robbinsville through specially designed advocacy training modules.

The achievements of CWAP graduates have been remarkable. Annette Loveless, a member of the first cohort, now chairs Lawrence Township's Environmental and Green Advisory Committee. Annabelle Wang, a high school student, received recognition from Montgomery Township's Environmental Commission for her work in raising awareness of water-related environmental issues. Ray Purkis and Nell Haughton, both engaged in their local Environmental Commissions, have actively advocated for enhanced protections and flood mitigation.

Vicky Allen: Champion of Environmental Education Recognized with Excellence Award

In recognition of her outstanding contributions, Vicky Allen, a dedicated environmental educator. has been honored with the 2023 Excellence in Environmental Education Award in the non-formal sector by the Alliance for NJ Environmental Education (ANJEE).

A Passionate Journey: Vicky joined The Watershed Institute as a part-time educator in 2014. Little did she know that this step would lead her to become a beacon of environmental education in New Jersey. In addition to teaching, Vicky serves as lead gardener in our Kate Gorrie Butterfly House, where she makes sure the caterpillars have plenty of host plants, the butterflies have nectar plants, the pond pump is running smoothly, and the place looks magnificent. She also mentors the young people who come as summer Fellows and volunteers to work in the butterfly house. She recently started a new courtyard nursery where she starts seedlings and grows plants to constantly restock the butterfly house for the very hungry caterpillars.

"Vicky constantly envisions new ideas, concocts plans, and takes on projects that make our work easier and the world a better place for all." said Pat Heaney, assistant director of education. "When NJ first adopted the NGSS (Next Generation Science Standards) with a focus on engineering practices, Vicky jumped right in to help develop a new handson stormwater runoff activity, building miniature lots and houses on which the students install green infrastructure." Five years later. The Watershed Institute still uses the same models, which are affectionately called Vicky Houses. She also developed a program



The Alliance for Environmental Education honored Vicky Allen's contributions to environmental education with the 2023 Excellence in Environmental Education Award.

where students built their own water powered wheels and set them up in a running stream.

Inspiring Outdoor Adventures:

Before her tenure at The Watershed Institute, Vicky spent an impressive two decades with the Girl Scouts of Central & Southern NJ, where she played a pivotal role in creating and directing environmental outdoor programs at the council's properties.

Beyond the Classroom: Vicky's passion for the environment extends beyond her professional life. She holds a Bachelor of Science degree in Psychology from Virginia Polytechnic Institute and State University (VPISU) and has maintained her membership in ANJEE throughout her career. Her love for nature is palpable in her hobbies, which include hiking, geocaching, and gardening. She even channels her creativity into crafting birdhouse gourds and fairy houses, demonstrating that her love for the environment knows no bounds.

Inspiring a Passion for Outdoor Exploration

Summertime at the **Watershed**

Now that summer is in the rear view, it is a wonderful time to reflect on some of the ways that young people experienced The Watershed Institute during their break from school. The Watershed Institute, a hub of environmental education and conservation, offered a diverse range of educational and fun activities to hundreds of students from central New Jersey.

Watershed Academy for High School Students

The Watershed Institute hosted the Watershed Academy for High School Students, welcoming aspiring environmentalists, scientists, and naturalists. Thanks to scholarships generously funded by The Robert Wood Johnson Foundation and Bristol Myers Sauibb, students from various high schools. including those from the Trenton Area, engaged in immersive experiences covering a wide array of topics, from stream science to freshwater wetlands and climate change.

Watershed Nature Camp

The Watershed Institute has been running its popular Watershed Nature Camp for 50 years, providing children in grades one through nine with enriching outdoor experiences, including hiking, art, survival skills, and wildlife exploration. This past summer, more than 100 campers engaged with the Watershed every week over our eight-week camp season. Financial aid, transportation, lunch, and supplies were provided to more than 20 percent of the campers, thanks to financial support from The Robert Wood Johnson Foundation, Bristol Myers Squibb, Princeton Area Community Foundation, Educational Testing Service, and individual donors.

These summer activities at The Watershed Institute showcase the organization's dedication to environmental education, stewardship, and community engagement, leaving a lasting positive impact on the environment and the lives of the young participants.

Alliance for Watershed Education Fellowship

The Watershed Institute hosted two Delaware River Watershed Fellows, Sachi Anand and Bianca Sanchez, who dedicated their time to fostering environmental awareness among the youth of the Boys and Girls Club of Mercer County. These fellows, part of the Alliance for Watershed Education, collaborated with The Watershed Institute to nurture engagement and action in the protection of the Delaware River Watershed while offering young adults career prospects in environmental education.

Sachi and Bianca, hailing from Brandeis University and Allegheny College, respectively, led engaging lesson plans focused on the vital role of pollinators. They brought their teachings to life by incorporating live insects, and inspired over 200 students on a field trip to the Kate Gorrie Butterfly House and Watershed Center.

Beyond their work with the Boys and Girls Club, Sachi and Bianca collaborated with Watershed staff on stewardship projects and outreach efforts, adding valuable contributions to Nature Camp and the Butterfly Festival.





AWE Fellows welcomed students from the Boys and Girls club of Mercer County to the Watershed Reserve.

Repairs and Restoration of **Wargo Pond Completed**



Phase one of Wargo Pond restoration is complete! Watch for details about our official re-opening in Spring 2024!

After several years of study, permitting, and fundraising, The Watershed Institute has completed repairs and dredging of the four-acre Wargo Pond. The pond had been drained of water since 2019 when the mechanism that regulates the pond's water level failed. The pond can once again serve as a central part of Watershed education and recreation activities and a vibrant wildlife habitat.

The project was made possible with the help of a \$475,000 grant from the New Jersey Department of Environmental Protection's (DEP) Green Acres Stewardship Program and private donors.

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