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WELLSPRING

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

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The
Watershed
Institute



FROM THE EXECUTIVE DIRECTOR

A New Commitment to Community Science

by Jim Waltman

A few days after Earth Day, The Watershed Institute celebrated our first in-person Annual Meeting in three years. We heard remarks from NJDEP Commissioner Shawn M. LaTourette, presented awards to four environmental heroes, elected new Trustees, applauded four departing Trustees for their service, and thanked supporters whose generosity makes our work possible.

We held the meeting in front of a dawn redwood tree that stands gracefully in front of the Watershed Center. This ancient species from Asia is one of only about 20 known deciduous conifers. Unlike the vast majority of cone-bearing plants, these trees turn brown and drop their needles each fall—a phenomenon that can be surprising for those assuming that the tree is literally “evergreen.”

To me, this tree is a symbol of hope and of faith—that spring will return and with it the runs of migratory fish up our rivers, spring ephemeral plants, the sweet songs of birds, and the eruption of amphibians in vernal pools.

The sprouting of the dawn redwood’s leaves is also an apt metaphor for the dedication of our intrepid StreamWatch water monitoring volunteers, who come back year after year and month after month to monitor water chemistry, biological health, and bacteria levels at nearly 75 locations around our region.

This year marks the 30th Anniversary of our StreamWatch program, an occasion that we celebrated at our annual meeting. StreamWatch was created by Jamie Kyte Sapoch, our executive director in the late ‘80s and early ‘90s.

Over the years, the Watershed’s StreamWatch volunteers have collected a staggering amount of data on water temperature, pH, nitrogen and phosphorous levels, sediment, dissolved oxygen, macroinvertebrate communities, bacteria levels, and more. One of them, Alix Gerry, has volunteered with the program for all of its thirty years.



The dawn redwood is one of the few deciduous conifers and every year it grows new needles.

The data helps determine the need for restoration activities, identifies particularly high-quality water deserving of enhanced regulatory protection, and indicates how safe it is for our use.

This is an exciting time for the StreamWatch program as we celebrate its 30th anniversary. With funds provided by an anonymous donor, we are purchasing new equipment for the field and our lab, and creating a new program to engage students in the practice of monitoring the water near their schools and identifying ways to address factors that degrade their local streams.

We’re calling this new twist on a time-tested program StreamWatch Schools. The program will be launched in the fall in schools throughout the region. This is another way that the Watershed continues to integrate our programs—our scientists working with our educators and advocates—to keep our water clean, safe and healthy. I look forward to sharing more details with you as we develop this program (and watching the dawn redwood’s leaves grow).



CELEBRATING THE YEAR

Watershed Annual Meeting A Joyous Event

The Watershed Institute's annual meeting on April 25 featured Commissioner Shawn M. LaTourette of the New Jersey Department of Environmental Protection, who shared how climate change makes environmental protections crucial for public safety and urged the audience of roughly 100 people to hold governments accountable.



Board Chair Barbie Griffin Cole and Executive Director Jim Waltman speak to an in-person crowd.

The event, the first in-person annual meeting in three years in the wake of the pandemic, touched on themes of renewal and reawakening—a metaphor inspired by a rare deciduous conifer dawn redwood, *Metasequoia glyptostroboides*, on the Watershed's campus.

"Each year, when this tree sheds its leaves, we wait expectantly for its spring renewal. Akin to the return of the ephemerals, and the invasion of the amphibians, we welcome the return of volunteers to our StreamWatch monitoring program—now celebrating its 30th anniversary," said **Jim Waltman**, Executive Director of the Watershed. "With our mission of protecting water and our environment, the Watershed has no more important partner than NJDEP."

Commissioner **Shawn M. LaTourette** shared how NJDEP's role is to drive environmental policy and direct programs that protect public health and environment, including managing the polluted stormwater runoff and catastrophic flooding wrought by the remnants of Tropical Storm Ida last September.



NJDEP Commissioner Shawn M. LaTourette

He stressed the importance of reminding elected officials, nonprofit organizations, corporations, and the public of the interconnectedness of the environment and public safety—especially as global warming gives rise to more intense and powerful storms.

"That is the sad reality of a changing climate in New Jersey and we've got to constantly remind our leaders of that fact. We are interconnected the way the water is."

"Every little bit matters," LaTourette continued. "Every trash cleanup matters, every step we take to rid our waterways of plastic pollution matters, and every pipeline you fight matters."

"It is impossible to do this job alone. We need every funder, every organizer, and every employee of institutions like this one and well beyond to care for the environment that we all share," he said. "Thank you for your partnership with us and for critically being accountability partners as well. Because when we fall down as a government, stand up and tell us."

Barbie Cole, Chair of the Board of Trustees, said the Watershed is burnishing its reputation for protecting the environment, conserving lands, and providing environmental education in the region.

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MONITORING OUR WATER

Streamwatch at 30

This year, The Watershed Institute celebrates the 30th anniversary of a cornerstone program: StreamWatch.

Changing the way farming and other land uses occurred in central New Jersey was a key goal in 1949 for the Watershed Association, a precursor of The Watershed Institute.



Biological monitoring starts with field collections and later volunteers identify organisms in our lab.

This remarkable and aspirational ethos led to the birth of StreamWatch in 1992. The goal was simple: determine the quality of central New Jersey waters in order to protect them. By harnessing the energy of “community scientist” volunteers, the Watershed could collect long-term data at a range of sites and develop a baseline picture of water quality in the region.

Our StreamWatch corps has expanded from an initial 40 to today’s 70-plus volunteers who monitor the chemical, biological, and physical health of our



Chemical monitoring occurs along the banks of streams and lakes across the region by volunteers of all ages.

waterways and the presence of harmful bacteria and toxic algal blooms. The volunteers—who range from high schoolers to retirees—help spot problem areas and track changes over months and years.

StreamWatch volunteers join one of three teams, noting any changes in their assigned waterway, gathering data for long-term trends analysis and sharing information with government and community partners.

An astounding volume of data has been collected in the past 30 years. Approximately 50,000 volunteer hours have been logged in the field at 75 waterbodies—in the Millstone and Delaware River watersheds.

Through the years, the StreamWatchers have alerted Watershed staff to problems. In the fall of 2019, Patti Maslanka noticed that Crusier Brook had turned milky white in stark contrast to the clarity she had noted the prior spring.

This recurring problem has been linked to a nearby quarry site. State officials and local media remain vigilant, thanks to our StreamWatch water watchdogs.





In recent summers, Mercer County officials warned the public about harmful algal blooms at Rosedale Lake as well as Sylva and Ceva Lake on The College of New Jersey (TCNJ) campus. The New Jersey Department of Environmental Protection officials (NJDEP) used our StreamWatch data as a basis for installing signs alerting visitors about these hazards.

As the StreamWatch program has matured, so has its reach, precision and impact. The Watershed's lab allows for in-house analysis of water samples from all three teams. This also gives aspiring environmental scientists a chance to immerse themselves in water analysis, deepening the educational aspect of the StreamWatch program.

This summer, volunteers on the **Chemical Action Team** (CATs) will be equipped with new digital meters.

"This investment in updated technology will elevate the quality of the data that we collect," said Erin Stretz, Assistant Director of Science and Stewardship and former StreamWatch program coordinator. "This will make our measurements more accurate and refined, so hopefully we will gain official state lab certification and can share this chemical data more broadly."

The Bacterial Action Team (BACTs) volunteers kicked into high gear last summer with a new method to track toxic cyanobacteria blooms and fecal bacteria in 55 locations. By measuring bacteria levels in the summer, these volunteer efforts help inform people about any potential dangers in their favorite watering hole or fishing spot. Beginning this summer, the Watershed will be the first group in New Jersey to join SwimGuide, an international public service app that helps to protect people as they explore and enjoy water resources around the world.

Affectionately known as BATs, our **Biological Action Team**

volunteers monitor stream habitat quality and the biotic communities that live there. With experience assessing macroinvertebrate communities, the Watershed has become a state leader in biological monitoring through its sister program, the New Jersey Watershed Watch Network. Led by Stretz, in partnership with NJDEP, the Network provides technical support and training for other New Jersey environmental groups to start monitoring programs of their own. Think of this as StreamWatch's extended family.

Jian Smith, our new StreamWatch Coordinator said, "I'm so excited and honored to lead this team of faithful volunteers with such an amazing history and legacy."

The StreamWatch program has prospered over the years because of a variety of factors, but it certainly could not exist without all the volunteers' dedication, time and contributions to making our waters clean, safe and healthy.

Streamwatch Volunteers



For the past 20 years, **Tom Smith**, 75, has blended his love for science and the outdoors as a StreamWatch volunteer for The Watershed Institute.

His interest in environmental science dates back to his college days at Rutgers University, and later as a science teacher in districts across New Jersey.



David Gao is documenting climate change on a microscopic level.

Gao, a student at the Lawrenceville School enjoys volunteering for BACTs because it fuels his desire to help protect water. In 2021, he participated in the clean water and stream science sessions of the Watershed Academy for High School Students.

**Help support our StreamWatch program
with a donation today.**
www.thewatershed.org/donate



Watershed Annual Meeting, CONT.



(left to right) Board Chair Barbie Griffin Cole with outgoing board members Vice Chair Mark Nurse, Sandra Allen, Patty Cronheim, Bob Harris, and Executive Director Jim Waltman.

“The Institute is the ‘go-to’ resource in the region. We are broadening our scope by working on polluted stormwater runoff and flooding,” she said. “We are a resource for helping citizens enact change in their communities.”

The meeting also included an awards ceremony for distinguished volunteers, Watershed members, and a local educator who have helped advance the Watershed’s mission.

Hella and Scott McVay received the **Edmund W. Stiles Award for Environmental Leadership**. They are accomplished leaders who have made significant contributions to the protection of New Jersey’s environment during their decades of residence in the Princeton area. Hella, a noteworthy mathematician, founded the state’s first organic food store, Whole Earth Center in Princeton, along with several other women. Among other accomplishments, Scott was the first executive director of the Geraldine R. Dodge Foundation where he made environmental protection a fundamental goal.

Shani Peretz received the **Richard Rotter Award for Excellence in Environmental Education**, for engaging her students with activities to protect and enhance waterways in local communities. A research scientist, she joined the Peddie school science department in 2005 and serves as an adviser to the school’s Environmental and Sustainability Team. She connects her students to both science and advocacy and immerses them in hands-on experiences. Peretz is helping pilot the Watershed’s new StreamWatch

Schools initiative launching later this year. She received her Ph.D. in genetics from Yale University in 2001 and her B.S. in biology from Pennsylvania State University in 1995.



(left to right) Peddie school students Joel Bodon and Shivani Verma flank Peddie school teacher and researcher Shani Peretz during the presentation of the Richard Rotter award, which was given to Peretz.

Alix Gerry received The Watershed Institute’s **Clean Water Champion Award** in honor of her dedicated service to the StreamWatch volunteer water quality monitoring program. Looking for ways to help her local community, she encouraged the Garden Club of Princeton to join the StreamWatch program at its inception in 1992. Each month for 30 years, she has monitored a Honey Lake site in Pennington, tracking changes in water chemistry and algal blooms.

Welcome New Trustees



Damon Missouri



Peter Tovar



KEEPING OUR WATER CLEAN

Stream Cleanups 2022



From tires to trophies and from curtain rods to car parts, Watershed volunteers removed a lot of trash from our waterways and parks this spring.

More than 960 volunteers helped remove over 13,000 lbs of trash from 16 locations across New Jersey as part of the Watershed's annual stream cleanups! Thank you to all of our volunteers!



COMMITTING TO HEALTHY WATER

Hopewell Public Schools are River Friendly

The Hopewell Valley School District has become the first in New Jersey to gain River-Friendly certification, a program pioneered by The Watershed Institute, further instilling an environmental ethos in its students, staff and faculty.

From building pollinator gardens and nature trails to designing hands-on science lessons, River-Friendly Schools create curriculum, projects and outreach that feature



Timberlane Middle School students pose with their River-Friendly plaque after the event.

water conservation, wildlife and habitat enhancement, water quality and educational outreach. The districtwide accreditation also connected the schools as they each worked toward a unified mission.

"I am delighted we were finally able to achieve the certification for River-Friendly schools across the district," said HVRSD Superintendent Dr. Rosetta Treece. "We are teaching the kids how important it is to protect our waterways. Small changes do make big changes and we need to think as a district about some of the larger changes that we can make. This is one step in that direction."

A district-wide celebration took place on Wednesday, April 13 at Timberlane Middle School with teachers and staff from all six district schools, as well as the students in the Green Teams and Youth Environmental Society. Dr. Treece, STEM Director Scott Brettell, The Watershed Institute Executive Director Jim Waltman, and TMS Principal Nicole Gianfredi spoke at the event. Dr. Treece received a proclamation from U.S. Rep. Bonnie Watson Coleman, D-NJ 12th District, praising the school district's dedication to environmental



Bear Tavern students have raised terrapins this year.

stewardship and education. Elected officials and other environmental nonprofits joined in the celebration.

The Watershed, which runs the River-Friendly certification programs, provided guidance, staff support and accreditation in the multi-year process at each school.

Teachers at the district's four elementary, middle and high schools added new lessons and led their students as they created or improved outside habitats on their campuses. The schools also did public outreach and education, which ranged from a virtual science fair focused on water conservation to sharing information on how plastic pollution impacts human health and wildlife.

"We are thrilled by the Hopewell Valley schools' dedication to water and environmental issues and for instilling that mindset in their students," said the Watershed's River-Friendly Coordinator Olivia Spildooren.

The district's fresh look at how students connect to the environment is timely because New Jersey is the first state to adopt climate change into its public school curriculum. The state's learning standards, which go into effect more broadly next fall, prepare students to understand how and why climate change happens, the impact it has on our local and global communities, and to act in informed and sustainable ways.

The Watershed's River-Friendly program is a way for schools, homes, businesses, and communities to adopt simple steps and new behaviors to make our water clean, safe, and healthy.



SPEAKING OF NATURE

Spring Brings Feathered Friends Back

by Jeff Hoagland



Each year, as spring settles into place, we find hope and skepticism wrestling. After a cold, unpredictable New Jersey winter, we are all ready for change. Our calendar tells us exactly when winter turns to spring, by name, but that is based on astronomical calculations

and not the fickle reality of weather. Ultimately the longer days and warmer temperatures provide a tonic to our souls as do the myriad of other spring phenomena—the eruption of colorful flowers, choruses of frog song, the reassertion of the color green. I call this the great awakening.

*midday sun
garter snakes tangled
in a love dance*

Spring is also noted for the return of our feathered friends. Ornithologists estimate that 3.5 million birds migrate northward into the United States each spring. Most of this migration occurs along invisible migratory highways. Our watershed is situated along the Atlantic Flyway, where as many as 250 bird species travel north each spring. Much of this migration, particularly for songbirds, takes place at night, under cover of darkness. On some spring nights, the flood of migrating birds is so heavy that weather radars detect the mass movement.

*warm front
approaching
migrating birds*

The timing of all this is simply part of nature's grand plan—longer days and warmer weather lead to the leaf out of fresh tender foliage which supports the mass hatch of leaf-eating insects which supports the incoming songbirds. Beautiful synchronicity.

Nothing says spring like an inundation of birds. If you doubt this, rise early with the first glimmer of light and listen to

the day unfold. The dawn chorus is one of nature's brilliant expressions of urgency. The affirmation of a new day often begins in my neighborhood with the notes of one solitary robin. After the shortest of pauses, he is joined quickly by other robins and soon, a collection of other species in a beautiful cacophony.



It is not enough to let spring unfold around us. We've been waiting for this. Don't simply take note—pause and embrace the season, each day. Crane your neck and look high above. In that sea of green called the forest canopy is a musical, sore-throated singer wearing the most brilliant of colors—the scarlet tanager. This bird migrates 4,000 miles from South America to nest 50 feet high up in the trees right here. When not singing, the tanager sifts through the oak foliage, hovering momentarily to glean an insect meal.

*dawn chorus
mosquitoes
collect the offering*

Be sure to drop to your knees daily. Take note and give thanks to our wriggling, crawling soil dwellers. Stare face-to-face with the lavender-pink blossoms of the wild geranium. Here on the forest soil, the black-and-orange crowned ovenbirds, with speckled breast and bespectacled face, build their delicate domed nest. Can you hear the male singing emphatically from forest shrubs—"teacher, Teacher, TEACHER"? Are you learning?



PRESERVING THE FUTURE

Donor Advised Funds as a Way of Giving

Longtime supporters Bob Baldwin and Margaret Sieck were first introduced to The Watershed Institute at FEST, its signature event, in the fall of 2000 when they relocated to Princeton. It was the start of a long, strong relationship that continues to this day with Bob serving as the Treasurer of the Watershed's Board of Trustees and Margaret as an active committee member and former Chair of the Advisory Board. They have abiding concerns for the region's water quality and overall environmental health.

Bob and Margaret support the Watershed through a Donor Advised Fund (DAF), which offers benefits both to the donors and the organization. "One of our objectives in our charitable giving is to provide a consistent flow of contributions to our preferred charities so that they can better budget their income and expenses," Bob explained. They established their DAF primarily because they had a few years when their income was higher than usual and thus they were in a position (both from a cash flow, and a tax-planning perspective) to make larger-than-normal donations. Using the DAF, they could make the larger donations in the "good" years, but then distribute those funds over multiple years to their favored charities, including the Watershed.

"The process of establishing a DAF couldn't be easier," said Margaret. The DAF "sponsors," which include all the large financial institutions and local foundations like the Princeton Area Community Foundation, stand ready to receive cash (or, better from a tax perspective, appreciated securities) to create a fund. "When we want to suggest



Bob Baldwin and Margaret Sieck

a donation," Margaret said, "the sponsor provides tools to analyze the charities we are considering, and then funds the charity within weeks of our recommendation."

As a tangible side benefit, the DAF sponsor provides one donation receipt when the DAF is funded; removing the hassle of tracking down all the required receipts from individual charities at tax time. "We appreciate this administrative benefit," Bob said. "Overall, we have found the DAF vehicle is an ideal way to manage much of our charitable giving, and we expect to employ it for many years to come."

Consider including the Watershed in your estate plans

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**Contact Development Director Jenny Kershner at (609) 737-3735 ext. 36
or jkershner@thewatershed.org to receive a copy of the planned giving brochure**



Spring-Summer 2022 Calendar

Mark your calendars and explore some fun this spring and summer with The Watershed Institute.

Join our programs and events with the whole family.

Spring-Summer Program Highlights

June 11—Butterfly House opens for the season

June 18—Solstice Run

July 16—Summer Fairy Festival

August 6—Butterfly Festival

Pre-registration is required for all programs and events. Visit us online to register.

thewatershed.org/events

Covid policy

Masks are currently optional for all people indoors. All participants in Watershed-sponsored indoor public programs and events aged 12+ will be required to show proof of vaccination. All visitors to the Watershed Center aged 12+ are required to be vaccinated. All participants aged 12+ in Watershed-sponsored outdoor events that include seated meals are required to show proof of vaccination. These policies are subject to revision if conditions or health agency guidance changes.

Read more at bit.ly/covid_h2oshed



Education Director Jeff Hoagland shows Princeton Middle School students what kinds of creatures they'll find when they collect samples from the retention pond behind the Watershed Center.

Sixth and seventh grade students explored the pond and the Stony Brook as part of a science field trip this spring.

Keeping water clean, safe and healthy is the heart of our mission.

We work to protect and restore our water and natural environment in central New Jersey through conservation, advocacy, science and education.

Visit us online to show your support. Stay informed, get involved, donate.

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