



Great Swamp Watershed Association

The Passaic River **WATERKEEPER®** ALLIANCE Affiliate



Across the Watershed

Spring-Summer 2024



Protecting our Waters and our Land for More Than 40 Years

GSWA Joins Congresswoman Sherrill to Advocate for Native Plant Legislation

By Val Thorpe, GSWA Director of Communications and Membership and
Sandra LaVigne, Director of Water Quality Programs

Great Swamp Watershed Association is a longtime advocate for the use of native pollinator plants due to the many important roles they play in nature such as helping to reduce flooding and protect our essential pollinators. Suffice it to say, when the office of Congresswoman Mikie Sherrill (NJ-11) asked us to join her and serve as a panelist at a press conference on her recently introduced *Building Native Habitats at Federal Facilities Act*, the answer was a resounding, “yes!”

The bill, a bipartisan, bicameral legislation, encourages the federal government, one of the nation’s largest landowners, to incorporate native plants versus invasive



Congresswoman Mikie Sherrill (NJ-11), left, and Sandra LaVigne, GSWA Director of Water Quality Programs, at the press conference.

species in local landscaping projects.

The conference was held on January 26 at the Morris County Outdoor Education Center (OEC) in Chatham, NJ. Sandra LaVigne, GSWA Director of Water Quality Programs, was one of four environmentalists to sit on the panel alongside Rep. Sherrill.

“I was honored to be invited to speak on behalf of GSWA to stress the importance of native plants to our water quality,” said Sandra. “Native plants significantly contribute to the habitat and diversity essential for our native pollinators. Additionally, their root systems play an important role in flood mitigation.

“The deep-reaching root systems of native plants act as (continued on page 25)



Sally Rubin, GSWA Executive Director, left; Congresswoman Mikie Sherrill (NJ-11), center; and Sandra LaVigne, GSWA Director of Water Quality Programs, right, at the press conference.

GSWA Acknowledges Longtime Partnership with the PSEG Foundation

By Lynne Applebaum, Director of Institutional Relations

2023 marked the 120th anniversary of PSEG, which began in 1903 as the Public Service Corporation. The company has been headquartered in Newark since its founding. In 1928, the company merged its electric and gas utilities into a single company, Public Service Electric and Gas, or PSE&G, which today is a subsidiary of Public Service Enterprise Group (PSEG).

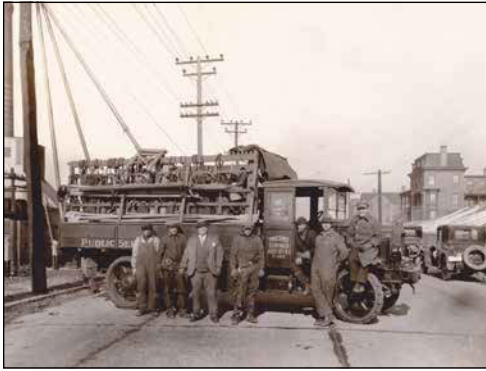


Photo of Public Service Corporation employees, 1903.
Photo courtesy of PSEG; used with permission

The PSEG Foundation has supported GSWA in a number of ways over the years. Most recently, our Environment Education Programs received a grant award through PSEG’s Neighborhood Partners Program.

“These programs provide students with interactive learning opportunities that get them excited to discover more about their own environment, including the role that the wetlands have on reducing flooding and water pollution,” said Maria Spina, Manager, PSEG Foundation. “Additionally, the adult education programs support a model of healthy living while exploring nature and raise awareness on the impact that we all have on our ecosystems.”

The Neighborhood Partners Program emphasizes assistance to communities with a focus on DEI and underrepresented populations, many of whom dwell in the urban communities in our watershed. GSWA’s Environmental Education Programs serve a large number of students from these communities, both in class and at our Conservation Management Area (CMA) for unique outdoor experiential learning opportunities. In fact, the PSEG Foundation provided funds in 2004 to establish the original GSWA position of Director, Education and Outreach, thereby enabling Hazel England to join our staff.



Hazel England teaching a group of Paterson students
in May 2023

GSWA’s Annual Gala Celebration and Silent Auction and Great Swamp Great Music Festival have been sponsored by PSEG for several years. These events are our major fundraisers, which help fund all of our programs and operations. These events would not be as successful without this continued support.

We are extremely grateful to PSEG and look forward to many more years of this valued partnership. 🌲

Across the Watershed

is a publication of the **Great Swamp Watershed Association.**

GSWA is a member-supported non-profit organization that protects the waters and the land of the Great Swamp Watershed and Passaic River region.

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GSWA Presents

The Passaic: One River One Community

Please view our 4-minute video that takes you on a journey down the Passaic River from its headwaters in Mendham to Newark Bay where the river meets the sea. Learn more about what we do, how we do it, and why we do it. Visit GreatSwamp.org/OneRiverVideo



Board of Trustee Updates

By Sally Rubin, Executive Director

GSWA is pleased to announce that David Naidu and Jordan Glatt were re-elected as Co-Chairs for 2024 at the January Board of Trustee meeting and Clark Wagner was re-elected Treasurer. We would like to thank Gerry-Jo Cranmer, Tony DellaPelle, Carolyn Sharaway, and Lisa Stevens for their service on our board and we welcome them to our Advisory Council. Also joining our Advisory Council this year is Karlito Almeda and Teresa Lane is returning to our Advisory Council. We thank Jose Barquin, Paul Boudreau, Alan and Kathy Pfeil for their service on the Council.

We would like to welcome Ryan Dawson and Ian MacCallum to our Board of Trustees.

Ryan Dawson joins GSWA with a proven track record in real estate. Born in Morristown and a lifelong resident of Morris County, Dawson is deeply involved in his community, serving on several boards and committees including Morristown



Ryan Dawson

Partnership, Washington Association of New Jersey, The Morristown Club (current President), Friendly Sons of St. Patrick of Morris County, and more. Ryan's solid background in real estate and strong ties to the community will play a pivotal role in helping to shape the organization's future. Ryan and his wife reside in Mendham.

Ian MacCallum is a respected leader in finance, currently working as a principal and portfolio manager at Cannell & Spears. Prior to that, he held senior positions at Klingenstein, Fields & Co., LLC., and J. & W. Seligman & Co. He sits on several boards including Charles & Marjorie Holloway Foundation, Presbyterian Church of Chatham Twp., and the Morristown Club (current Treasurer). Ian's knowledge of key trends and challenges and his commitment to excellence make him a solid addition to the GSWA board. Ian and his wife reside in Harding. 🏡



Ian MacCallum

Have You Considered Including GSWA in Your Estate Plans?

Designating the Great Swamp Watershed Association as a beneficiary in your will is a sure way to continue your support for our work and sustain it long into the future.

Specific language in your will should of course be reviewed with your attorney. For more information on GSWA's Planned Giving program, please contact Sally Rubin, Executive Director at (973) 538-3500 or srubin@greatswamp.org.

Upcoming Programs and Events



Scan to
Register

Native Plants for Pollinator Webinar Series

Pollinator Conservation: Creating and Protecting Habitat for NJ's Bees, Butterflies, and Biodiversity - Free **Wednesday, March 13, 7-8 PM**

Free Zoom Webinar

Pollinators and other beneficial insects are experiencing drastic and widespread declines making pollinator conservation a national and New Jersey priority. However, we can all play a role in protecting pollinators and beneficial insects and the important ecological services they provide. Join the Xerces Society's Kelly Gill to learn how you can best support pollinators in your NJ yard, garden, and local landscapes by planting native flowering plants, enhancing nesting and overwintering habitat, and reducing pesticide risk. Kelly will include case studies on pollinators included in this year's plant kits and focus on pollinator needs throughout the seasons. Register at GreatSwamp.org or call 973-538-3500.

Pollinator Box Workshop **Thursday, March 14, 6-7:30 PM**

*GSWA Headquarters, 568 Tempe Wick Rd,
Morristown, NJ*

Did you know some bees don't live in hives? Come get the scoop about pollinator boxes and how they benefit the environment. This workshop will be "the bee's knees!" (We apologize for that.) Join us for an evening of building, learning and all-around good fun as we talk about the importance of solitary bees

and pollinator habitats to the ecosystem, and build a pollinator box of your own to take home! Cost: \$30/box. This workshop is limited to the first 10 people who register. Missing this event will really sting, so make sure you register today! Register at GreatSwamp.org or call 973-538-3500.

Signs of Spring Hike **Saturday, March 16, 10 AM-12:30 PM**

*Garret Mountain Reservation, Lambert Castle
Parking Lot, 3 Valley Rd., Paterson, NJ*

Spring is just around the corner, and all around us plants and animals are preparing for the upcoming season. Learn about how both flora and fauna survive the winter and what clues tell them spring is coming as well as some history of the area. Weather conditions in early March can be extremely variable, please make sure to dress appropriately. The hike will be just over 3 miles long with 400 feet of elevation change. GSWA members: \$10, non-members: \$20. Register at GreatSwamp.org or call 973-538-3500.

Vernal Pool Exploration Hike **Thursday, March 28, 7-9 PM**

*GSWA's Conservation Management Area
(CMA) - 91 Tiger Lily Lane, Harding
Township, NJ*

With temperatures rising, the forest floor will be hopping with new life as frogs and other amphibians crowd into shallow puddles of water to breed and lay their eggs. These pud-

For more information on upcoming events and to register,
visit GreatSwamp.org or call 973-538-3500.

Most events are free or a reduced rate for GSWA members.
Registration is required for all GSWA events.

dles, called vernal pools, provide a perfect opportunity to learn more about Mother Nature here in New Jersey. But we have to hurry! They disappear quickly. This annual Vernal Pool Exploration provides a fun, outdoor learning experience for kids and adults alike. Discover the differences between a spring peeper, a chorus frog, and a wood frog. Find out how far an endangered spotted salamander will walk to find a mating pool. And, learn how much everything we have come to appreciate about the springtime depends upon a few unassuming puddles of water on the forest floor. GSWA members: Free, non-member (adult): \$20, non-member (child): \$10. Register at GreatSwamp.org or call 973-538-3500.

Native Plants for Pollinator Webinar Series

Plants for Pollinators Plant Program

Overview - Free

Monday, April 1, 12-1 PM

Free Zoom Webinar

To launch Day 1 of our 4th Annual Plants for Pollinators Program, GSWA's Director of Education and Outreach, Land Steward, and resident pollinator expert, Hazel England, will provide an in-depth look at each of the **37** 2024 selections being offered as individual species and within six kits suitable for a range of garden conditions. Hazel will review why native plants are important, cover the new species in this year's sale, and delve into the various pollinator species these native plants will particularly attract. Learn more about how to start, add, or amend your growing native pollinator garden. You'll leave energized knowing the amazing benefits these 37 different native species can bring to your yard and you'll be ready to shop the sale. Register at GreatSwamp.org or call 973-538-3500.

GSWA's 4th Annual Native Plants for Pollinator Program (online)

April 1-19 - Opens Online @ 1:30 PM

(Plant purchase pickup in May)

GSWA and its many Community Partners will host our 4th Annual Plants for Pollinators Program online sale with convenient order pickup at multiple local sites. Order online April 1-19 and pick up your plants May 6. Whether you are looking to expand your garden or you're ready to start one, we've got the native plants you need. And we've taken the guesswork out of it with a variety of pre-packaged plant plugs (young plants) that when placed together, create a beautiful, functioning pollinator garden. Plants can also be purchased in units of plugs. Mark your calendar for April 1 and email PlantSale@GreatSwamp.org for more information. Be sure to order early to ensure you get your selection as plants do sell out quickly!

Stream Assessment Training - Free

Sunday, April 7, 1-4 PM

Morristown & Morris Township Library, 1 Miller Rd, Morristown, NJ

Unless there's obvious pollution in the river or stream, to the untrained eye, the water may look healthy. But is it? This free training session, led by Sandra LaVigne, GSWA Director of Water Quality Programs, will teach you how to conduct visual and biological stream assessments, identify macroinvertebrates, and recognize environmental factors that may impact stream health. The first half of the program is indoors; the second half is streamside along Loantaka Brook. By the end of the day, you will have the skills you need to conduct your own assessments. Register at GreatSwamp.org or call 973-538-3500.

How's the Water? GSWA 2023 Water Quality Report Card – Free
Thursday, April 11, 7-8:30 PM

Morristown & Morris Township Library, 1 Miller Rd, Morristown, NJ

How's the water? That is the most common question we get from onlookers when we are out collecting water quality samples. Join Sandra LaVigne, GSWA's Director of Water Quality Programs, for a re-cap of the stream updates and water quality data results from 2023. Bring your questions. Register at GreatSwamp.org or call 973-538-3500.

Plant Program Panel and Q&A - Free
Thursday, April 11, 7-8:30 PM

Free Zoom Webinar

Three friendly, local native plant enthusiasts with years of experience will be available in an interactive webinar to help answer your questions and share advice about choosing, planting, growing and sustaining native plants. You will be able to email questions in advance or ask them during the webinar. Register at GreatSwamp.org or call 973-538-3500.

Spring Paddle (2 Sessions)
Saturday, April 27, 9-10:30 AM & 11 AM-12:30 PM

Fisherman's Parking Lot, Lord Stirling Rd., Basking Ridge, NJ

By mid-April, most trees are bursting with buds with their leaves ready to emerge. Birds like pine warblers and woodcocks are migrating back our way. Spring peepers and chorus frogs are calling. Come experience all this and more from a magical place - the middle of the Passaic River at the Great Swamp National Wildlife Refuge. Children 8 and up are welcome. All participants 15 and under must be accompanied by a parent. There are 7 spots available per session – only 2 spots per

registration. All participants must be able to swim, be comfortable on the water, and wear clothes and footwear that can (and will) get wet and muddy. Life vests will be provided. GSWA members: \$30, non-members: \$40. Register at GreatSwamp.org or call 973-538-3500.

Madison & The Chathams Town-wide Yard Sale

Saturday, May 4, 9 AM-2 PM

Madison and Chatham residents, when you host a yard sale at this community event, your address and sale items appear on a digital, printable map. The map will be linked to GSWA's website and publicized far and wide to potential shoppers. Your tax-deductible \$10 registration fee benefits GSWA! Everyone else, mark your calendar to get out and shop sustainably. Happy sales to you! Register at GreatSwamp.org or call 973-538-3500.

7th Annual Great Swamp Great Music Festival
Sunday, May 19, 2024

Brook Valley Farm, Chatham Twp.

Backup Indoor Location:

Drew University, Madison

Visit GreatSwamp.org for details and tickets.



Birds and Bees – Free
Saturday, May 25, 8-10 AM

Great Swamp National Wildlife Refuge – Bluebird Lot on Pleasant Plains Rd.

Spring is in full swing here in the refuge, and it's a great time to start honing your pollinator identification. Come join naturalist Ginger on a leisurely stroll through the refuge as we look for some birds and bees doing their spring thing. We will be hiking just under 2 miles on a flat, coarse gravel road. Register at GreatSwamp.org or call 973-538-3500.

Please be sure to let us know if you change your e-mail address. Send a note with your name, address, and old e-mail address to Nancy at nrago@GreatSwamp.org so you don't miss out on our e-newsletters.

Paddle the Passaic (2 Sessions) Friday, May 31, 4:30-6 PM & 6:30-8 PM

*Essex County Environmental Center, 621
Eagle Rock Ave, Roseland, NJ*

Ease into your weekend with a leisurely paddle on the Passaic River. As you experience beautiful golden hour from the water, you may also be visited by some great blue herons, turtles, and other wildlife that uses the stream corridor as habitat and migration route. Children 8 and up are welcome. All participants 15 and under must be accompanied by a parent. There are 7 spots available per session – only 2 spots per registration. All participants must be able to swim, be comfortable on the water, and wear clothes and footwear that can (and will) get wet and muddy. Life vests will be provided. GSWA members: \$30, non-members: \$40. Register at GreatSwamp.org or call 973-538-3500.

All the Colors of the CMA Saturday, June 1, 10 AM-12 PM

*GSWA's Conservation Management Area
(CMA) - 91 Tiger Lily Lane, Harding
Township, NJ*

With our recent trail additions, we are proud to announce our trail system is now roughly

3.5 miles long; but can you say you've hiked every single trail? If not, join us for a hike on the first of June and you will! Throughout our hike, we will discuss what our local wildlife is doing to gear up for summer, what our current projects are at the CMA, and what you can do to help steward the land in your everyday life. GSWA members: \$5, non-members: \$10. Register at GreatSwamp.org or call 973-538-3500.

Solstice Paddle; Experienced (2 Sessions) Thursday, June 20, 5:30-7:30 PM

*Great Piece Meadows, 2 Camp Ln, Fairfield
Meetup at Fairfield Parking lot*

Take a beautiful paddle through the preserved Great Piece Meadows with GSWA staff on the longest day of the year. As this paddle is geared towards experienced paddlers, all participants must be 15 and older. There are 7 spots available for this session—only 2 spots per registration. All participants must be able to swim, be comfortable on the water, and wear clothes and footwear that can (and will) get wet and muddy. Life vests will be provided. GSWA members: \$30, non-members: \$40. Register at GreatSwamp.org or call 973-538-3500. 🌿

GSWA Experts Available to Speak to Area Groups

Do you wonder, "What is in my water?" or "What can I do to keep water clean for my children?" These and other questions about water quality, land preservation, and local efforts to protect the environment can be answered by the Great Swamp Watershed Association (GSWA). GSWA speakers give interesting, hands-on presentations that will educate and inspire members of your local club or group. Please contact Sally Rubin, Executive Director at (973) 538-3500 or srubin@greatswamp.org.

GSWA Water Quality Report Card and Updates

By Sandra LaVigne, Director of Water Quality Programs

Throughout 2023, GSWA completed our annual water quality monitoring including quarterly chemistry sampling, macroinvertebrate sampling, bacterial sampling, and visual assessments. Overall, GSWA staff and volunteers monitored 33 discrete sites along the Passaic River and the

River between Little Falls and Dundee Dam. This area of the river surrounds the majority of Paterson and brings us into an increasingly urban region of the watershed.

In the expansion area between Little Falls and Dundee Dam, nitrogen levels at all four sites were elevated above the EPA standards on at least two out of four of our sampling days. While nitrogen is essential for the healthy growth of aquatic plants, excessive amounts can work like fertilizer dramatically increasing plant growth and increasing the likelihood of algal blooms in the slower-moving areas of the river. Harmful algal blooms of blue-green cyanobacteria have been an increasing issue in New Jersey's water bodies over the last few years. The increase and severity of rainstorms in our area leads to higher levels of contaminants entering our streams through stormwater runoff. This runoff can be one source of the excessive nitrogen levels in our streams. However, in Paterson, there is another major potential source of nitrogen and that is the combined sewer overflow. This system combines the wastewater sewage from homes and businesses in



Figure 1: Sandra LaVigne collecting WQ Samples at Dundee Dam

Great Swamp Watershed tributaries. This was the first year of our latest Passaic River expansion bringing us downstream as far as Dundee Dam in Garfield. Since 2017, GSWA has been expanding our knowledge of the water quality along the Passaic River. Every three years since then we have moved further downstream with our sampling efforts, connecting with new communities and learning about the issues facing the different regions of the Passaic River. The 2023 expansion includes the stretch of the Passaic



Figure 2: Flooding at Paterson Great Falls

Paterson with the stormwater runoff from the street drains. When too much water volume enters the system, the excess of mixed sewage and stormwater is diverted into the river. This partially untreated sewage can contain not only high levels of nitrogen but bacteria as well.

In 2023, the precipitation patterns were notable for long dry spells followed by strong rains that often exceeded more than an inch of rain within a 24-hour period. We had four months that had more than two inches of rain above the normal monthly average, including the wettest December on record since 1895. One December storm had record rainfall amounts of over five inches in some areas of the Passaic Watershed. The resulting runoff entering the Passaic River from this storm alone caused flooding levels more than 10 feet above normal flow at the Little Falls USGS monitoring station.



Figure 3: Flooding and erosion at the CMA

Flooding and runoff from strong storms impacted some of our Great Swamp Watershed streams as well. The Silver Brook which runs through the GSWA Conservation Management Area (CMA), has been impacted by issues of erosion and increased nutrient loading, with higher than usual nitrogen and phosphorus levels being noted at some locations in May and November, both of which were collected following

major rain events. However, the effects of the restoration project carried out at the CMA in 2020 are shown in the increased amount of stormwater runoff that is now being held on the property. This helps to reduce the impacts of flooding in areas further downstream. This slower movement of water through the CMA also allows for more of the excess nutrients being brought in to be filtered out by the wetland vegetation. Water quality samples collected at the downstream sampling location along the Silver Brook showed lower nutrients than the samples collected at the upstream site, showing that the forested floodplain areas in the CMA are functioning properly to filter the water.

<div><div></div><div>Loantaka Brook</div><div>State Waterbody ID: NJ02030103010040-01</div></div>	
Year Last Reported: 2020	
Waterbody Condition: <div></div> Impaired (Issues Identified)	
Organization Name (ID): New Jersey (21NJDEP1)	
What is this water used for?	Condition
<div><div></div>Drinking Water</div>	Impaired
<div><div></div>Aquatic Life</div>	Impaired
<div><div></div>Fish and Shellfish Consumption</div>	Condition Unknown
<div><div></div>Swimming and Boating</div>	Impaired
Identified Issues:	
<div><div><div></div>Bacteria and Other Microbes</div><div><div></div>Degraded Aquatic Life</div><div><div></div>Nitrogen and/or Phosphorus</div><div><div></div>Salts</div></div>	

Figure 4: NJDEP 303d List standings for Loantaka Brook

Loantaka Brook continues to be the most impaired tributary within the Great Swamp Watershed area and is listed as impaired in the NJDEP 303d Water Quality list for issues with bacteria levels, nutrient loading, and low macroinvertebrate diversity. To further understand the issues impacting the stream, GSWA collected extra water quality data in the headwater region of the brook during our fall sampling. This data showed significantly elevated (continued on page 17)

Moose the Monarch

By Val Thorpe, GSWA Director of Communications and Membership

I was in my backyard on a particularly nice September day when I noticed something hanging off my grill. It turned out to be a Monarch caterpillar who must've traveled from my nearby native pollinator garden. He (I'll explain the "he" later) had attached himself to the cover and appeared to be doing sit-ups. This was not a great place



for this little guy to take up residence since I used my grill often.

One of the many benefits of working at an environmental organization is access to our amazing naturalists who kindly share their knowledge. I snapped a pic and texted my co-worker, Hazel England. If you don't know Hazel, perhaps her title, Director of Education, Outreach, and Land Stewardship, gives you an idea of the extent of her knowledge!

Hazel confirmed that Moose (of course I named him, and Moose sounded strong) was getting ready to pupate and had already started the process. She suggested I use a sharp knife to cut the very top of the stem where Moose was connected to the cover, carefully glue the stem to a stick, and plant the whole stem in a sheltered area. (Okay, sounds like a plan.)

I took my time grabbing all my supplies and returned about 30 minutes later only to discover that while I was gone, Moose had turned himself into a chrysalis. Just like that! Had I known how fast this would happen, I would have sat and watched this amazing metamorphosis. FACT: this change happens about 12 hours after the Monarch attaches itself to a "safe" location. (Really, an exposed grill?) I had caught Moose in the final transformation stage. My loss...

After a few deep breaths, I went to work on this delicate transplant. The plan required several tweaks as issues arose, including the stem not adhering to the stick. I eventually used two toothpicks as grips to vice the top of the tiny stem and glued it in place. Then I taped the toothpicks that were holding the



stem that was holding Moose to a container, put a rock in it for stability, and placed the whole contraption in a hidden spot in my garden. There, the transplant was complete.

It was a stressful procedure and I worried I may have harmed him in the process.

Forgetting there's a thing called the internet where you can search for answers, and not wanting to keep bothering Hazel, I wondered how long it would take for Moose to emerge, if at all. I checked on him every few days and celebrated every time I saw he was still there and had not been snatched by a hungry critter.

Then, 11 days later, I realized it had been a while since I had checked on Moose. I nervously parted the leaves, peered down at the planter, and WOW! There was Moose, a full Monarch butterfly, slowly pumping his wings



to help them expand. What timing! Had I missed checking on him when I did, I would have always wondered if he had survived. I felt like a proud mama! He was exquisite. I watched him for a while, wondering if he would fly off at some point, but he stayed put.

I finally remembered about the internet. FACT: It takes anywhere from 4 to 24 hours for the wings to fully inflate and dry. It's recommended to wait 24 hours or longer and release during daylight hours. I also learned that Moose was indeed a male, as indicated by the 2 black dots towards the bottom of his wings.

With nighttime temperatures dropping, I worried it would be too cold for Moose's drying wings, so I brought him inside, clung to his toothpick getup. I placed a netted dome over him (the kind you use to cover your potato salad at a BBQ) and said goodnight. The next morning, he was hanging from the dome. (Let there be flight!) I took him back outside, tilted the dome so it was semi-open, and left for work, wondering if I would see him again. And when I returned, he was gone.

Summer monarchs typically live two to five weeks; however, "last generation" monarchs that emerge in late-summer/early-fall migrate down south. FACT: Eastern monarchs fly thousands of miles from as far north as Canada to winter in Mexico.

I am truly grateful for this incredible adventure I experienced with Moose. Nature offers us so much wonder and joy, and all we need to do is take the time to look around us. I like to think Moose is in Central Mexico right now feeling the sun on his wings enjoying a nice glass of nectar with an umbrella in it. Meanwhile, turns out I have not used that grill since before the transplant. But that's a story for another day... 🌿

Know Someone Who Would Like to Become a Member?

GSWA relies on members like you to help protect our watershed's natural resources. Please pass this newsletter along, and encourage your friends and neighbors to join us! visit GreatSwamp.org for more information.

Elevate Your Giving: Unlock the Power of Corporate Matching for Greater Impact

By Nancy Rago, Membership and Social Media Manager

In today’s socially conscious world, individuals aspire to make a positive impact in their communities and beyond. *What if you could amplify the impact of your support for a favorite charity without straining your own financial resources?* One solution lies in tapping into your employer’s Corporate Social Responsibility (CSR) programs, thereby magnifying your contribution’s influence. Businesses, regardless of size, are increasingly adopting initiatives such as matching gift programs, volunteer grants, and employee giving campaigns.

Unleash the Potential of Matching Gifts

A standout feature of CSR programs is the impactful employee matching gift program. This is a simple yet powerful concept where the employer matches the charitable contributions made by its employees. Picture this: for every dollar you contribute to the Great Swamp Watershed Association (GSWA), your employer adds an equivalent dollar. This not only doubles the financial impact but also significantly amplifies the scope of your individual generosity.

To check if your employer has a matching gift program, scan the QR code below (or visit <https://bit.ly/3vLlfhM>). Search your company’s name, and a link to their Matching Gift Form and Guidelines may be accessible there. Alternatively, consult your human resources department or review the company’s policies on charitable giving.



Empowering Change Together

Your personal donation, combined with your company’s matching initiative, is a catalyst for impactful change. It’s not just about the financial support; it’s a demonstration of collective commitment to shared values. I am continually inspired by the unwavering loyalty and commitment shown by our supporters who have initiated matching gifts through their companies. The image shows just a few of these companies, and your employer has the potential to join this esteemed list.



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Double Your Support

For over 40 years, the Great Swamp Watershed Association has been committed to preserving and elevating the water quality of the Passaic River region, from the Great Swamp headwaters to Newark Bay. Boasting an esteemed IRS 501(c)(3) recognition (EIN 22-2403906), the prestigious Candid
(continued on page 15)

Danielle Bongiovanni joins GSWA as our new Education and Water Quality Associate

Danielle is a Ramapo College graduate who earned a B.S. in Environmental Science and minored in Environmental Studies. She was heavily involved in her college newspaper and continues to write in her free time. Danielle most recently worked at the Pocono Environmental Education Center. She is comfortable presenting complex topics to diverse audiences and understands that conservation is a collaborative effort among many groups. Her favorite authors include Sir Terry Pratchett and Dianna Wynne Jones. When spending time outside, she loves to hike, birdwatch and fish.

We are excited to have Danielle join us as the newest member of our program team! 🌿

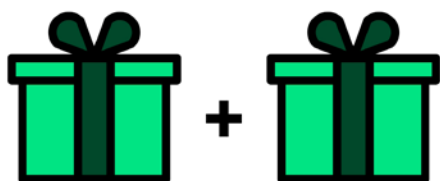


Elevate Your Giving: Unlock the Power of Corporate Matching for Greater Impact

(continued from page 14)

(formerly Guide Star) 2024 Platinum Seal of Transparency, and a stellar 4-star rating from Charity Navigator, GSWA is recognized as a notable and trustworthy environmental nonprofit that would benefit from your participation in a matching gift program. Our call to action is straightforward: when you pair your individual contributions with your employer's matching gift, you not only give confidently but also play a significant role in

advancing the ongoing mission of GSWA. Simply scan the code below to kickstart your personal donation to GSWA. If the matching program requires proof of your personal contribution, GSWA provides the receipt for submission. And if your employer doesn't participate in a matching gift program, encourage them to do so to demonstrate their commitment to their employees and their communities. 🌿



Double Your Donation!



New GSWA Partners - The Mimi Washington Starrett Foundation

By Lynne Applebaum, Director of Institutional Relations

The Mimi Washington Starrett Foundation, a new foundation but with deep roots in Morris County, has selected GSWA as recipients of a two-year General Operating Support grant award. This unrestricted funding enables GSWA to carry out its mission of protecting and improving the land and water resources of the Great Swamp Watershed and Passaic River region through science, education, land preservation and stewardship, and advocacy, benefiting all who reside in this region.

Marian “Mimi” Washington, its founder, was born in Morristown in 1930 into a civic-minded, philanthropic family. Mimi and her husband Cliff supported arts education programs, historic preservation, and education for underfunded groups. After her death, The Mimi Washington Starrett Foundation

was established in her name in 2021. The foundation continues to support important community causes, such as environmental conservation.

Sarah Ahart, Mimi Washington Starrett Foundation president, leads with the intent of creating “meaningful, impactful partnerships throughout New Jersey.” Sarah’s father, Edward Ahart, who is chairman of the foundation, is a business law attorney with Schenck Price Smith & King, LLP, based in Morristown. Together, Sarah and Edward Ahart seek to support worthy causes based in Morris County.

GSWA is very grateful for this generous grant award. We look forward to a long and rewarding relationship with this new foundation partner. 🌲

GSWA is Re-Accredited by the Land Trust Accreditation Commission

By Ginger VanRyzin, Education, Land Steward and Water Quality Associate

GSWA is pleased to announce we have received national accreditation for an additional five years, until 2028. We are one of only 12 land trusts in NJ and about 450 land trusts nationwide to receive this prestigious accreditation. We are thrilled to be re-accredited, affirming that GSWA demonstrates fiscal accountability, strong organizational leadership, sound transactions and lasting stewardship of the lands we

conserve like our Conservation Management Area. This accreditation allows us to continue to protect the health of the Passaic River while being nationally recognized as a sound Land Trust. 🌲



The accreditation seal is awarded to land trusts meeting the highest national standards for excellence and conservation permanence.

nitrogen levels and total dissolved solids (a measure of road salt). GSWA is using these data as well as historic data results to work with the communities in the Loantaka watershed area to develop a Watershed Restoration and Protection Plan. This plan will lay out strategies to restore and improve the water quality within Loantaka Brook and also help the local municipalities meet the new stormwater regulations being implemented in NJ.

Finally, in November GSWA staff conducted follow-up PFAS sampling along Black Brook and in the Rolling Knolls superfund site area. PFAS continue to be an issue of concern, these forever chemicals are ubiquitous in our environment, and increasing regulations about the acceptable levels in the water are being implemented at both the state and federal levels. In November we sampled seven locations, four along Black Brook and three within the marsh area at the Rolling Knolls superfund site. As with our previous findings, every site contained some level of PFAS contamination. The three sites at Rolling Knolls contained the highest number of contaminants with one site testing positive for twelve out of the thirty-six PFAS compounds tested. Two of the Rolling Knolls sites tested extremely high for the compound perfluorooctanesulfonic acid



Figure 5: Hazel England helping to collect PFAS samples at Rolling Knolls Superfund site

(PFOS), one of the compounds currently regulated in drinking water by NJ. The levels found at these sites were up to four orders of magnitude higher than the levels set for drinking water. The samples collected in Black Brook covered sites both upstream and downstream of the Rolling Knolls site. The samples collected upstream had significantly lower levels of PFAS compounds and in lower quantities than the downstream sites. This data will be presented to the community and the EPA to help determine the best and most environmentally sound solution for restoring the Rolling Knolls Superfund site. 🌱

Interested in Volunteering?

If you are interested in getting actively involved in efforts to protect and preserve the watershed, GSWA has a number of volunteer opportunities (see GreatSwamp.org/volunteer/).

Please send an email to info@GreatSwamp.org if you would like to volunteer.

Katherine Stinson, Advisory Council

By Wade Kirby, Director of Development

Katherine “Kit” Stinson grew up in Summit and currently lives in Gillette. Her professional career spanned many years working in the fields of employee communications, public relations, and executive speech writing. Formerly at AT&T in and around Basking Ridge, as well as Bell Labs and Fidelity Investments in Boston, Kit returned here in 2000 and retired ten years ago.

Kit’s keen interest in the outdoors began as a child when her brother, a naturalist, woke her up early to view the bird blinds in the Great Swamp. The two would go for walks in the swamp. She has a strong memory of the lawsuit with the Port Authority of New York which took place in the 1960’s and resulted in the permanent preservation of what is now the Great Swamp National Wildlife Refuge. She understood there was a threat, but she did not fully understand the severity. The outcome gave her hope that things can be stopped with the right people opposing it. Developers will try and develop whenever and wherever they can. Kit says, “if you view land as a transactional commodity and as a source of profit rather than a gift and an obligation...bad things can happen!”

Kit’s relationship with the Great Swamp Watershed Association began after she retired and finally had some free time to devote to animal welfare, social justice, and the environment. She realized that a healthy environment is crucial to the well-being of just about anything else. When humans intervene, there seems to be a direct correlation with flooding, impassable roads, power outages, etc. Kit was drawn to GSWA’s mission that includes education, advocacy, stewardship,

and land preservation. She happily volunteered to stuff envelopes in preparation for a fundraising Gala. During that time, she met some great people who shared her values and know a tremendous amount about the environment. The speakers have been great; all engaged in environmental work from different perspectives.

At the time Kit became involved, she felt that GSWA’s greatest challenge was local overdevelopment. It has only gotten more intense! She feels the need for eternal vigilance in opposition. Along the way, she has gained an appreciation for the phrase, “From Source to Sea,” understanding the environment to be an entire system. GSWA’s efforts to become a Passaic River Waterkeeper Alliance Affiliate is stewardship in action. Kit says, “there is no such thing as your own backyard.” Rivers don’t care about political boundaries, i.e. where a town begins and ends. You may really understand it better when you are on the river which is beautiful and pure and commands our respect. She knows that remediation is a vitally important part of clean-up and alerts us to the inevitable carnage which can be prevented.

GSWA’s environmental education presented to students in their schools as well as their travel to our Conservation Management Area is a unique, eye-opening and joyful experience many times not available through the school’s set curriculum.

Kit explains that there are many different ways to get involved with GSWA such as the music festival and the annual Gala. One shouldn’t feel that their only option is taking sides with a huge, weighty policy decision.

(continued on page 19)

Matthew Krauser, Advisory Council

By Wade Kirby, Director of Development

Matthew Krauser graduated from Ithaca College in 1994 and in 1999 he received a Master's Degree from New York University in Real Estate Development and Investment. Matt and Agi were married in 2016 and their son Raine was born in 2018. They reside in Morris Township.

For the past 30 years Matt has been a real estate appraiser and consultant specializing in land preservation and conservation, focusing on land that is rich in natural resources. He joined GSWA in 2015 after the former Mayor of Morristown Jay Delaney introduced him to Executive Director Sally Rubin. Sally had then asked Matt to speak at a municipal alliance meeting at which Matt spoke about land preservation and his involvement in the Giralda Farms Land Preservation Project, which was environmentally sensitive land saved from development into large-scale multifamily housing and an office complex. Shortly thereafter Matt was asked by Sally to join GSWA's Board of Trustees which he then chaired in 2016 and 2017.

Matt is especially proud of three major accomplishments during his tenure as Board Chair:

1. GSWA became accredited as a land trust.

2. GSWA was officially recognized as a Passaic River Waterkeeper Alliance Affiliate.
3. The LaMorgese Property contiguous to the Conservation Management Area (CMA) was acquired.

These accomplishments helped propel GSWA to where it is today.

Matt considers the biggest challenge is just to be heard! GSWA has done its share to minimize the local environmental problems. Now how do we get our message out with so many other environmental non-profits that have similar missions? Matt feels GSWA has done a great job of joining forces with many other organizations to maximize our potential, and under Sally's leadership, the organization has never been more well known to the community. But the dedication of the GSWA staff is paramount to our organization's success! He became involved with the GSWA since he feels it is time to give back to the community.

Matt's first-time board membership taught him a lot. Environmental challenges are ongoing but can be minimized for public benefit through GSWA's awareness creation. "If you are passionate about clean water, then GSWA is the place for you!" 🌿

Katherine Stinson, Advisory Council

(continued from page 18)

Kit has conquered a serious illness during the past couple of years and realizes there is so much to live for, and so much work still to be done. How grateful is GSWA to have

Kit a member of our Advisory Council and to know that we may call upon her assistance whenever and however her time permits. 🌿

GSWA's 2023 Gala Celebration

By Melanie Hertgen, Office Manager and Event Coordinator

In a wonderful display of generosity and support, nearly 270 esteemed guests gathered at the Brooklake Country Club in Florham Park for GSWA's 2023 Gala Celebration and Silent Auction- a delightful evening of philanthropy and festivity.

The evening began with a special cocktail hour for guests who purchased VIP tickets for an opportunity to mingle and connect before the main event commenced. Guests enjoyed hors d'oeuvres, posed for "Polaroid selfies," and perused over 100 silent auction items up for bid. From exciting getaways to unique experiences, there was something for everyone. The silent auction was our most successful auction ever! One of the evening's highlights was the captivating, professional magician, comedian, and mentalist, Simon Mandal, who wowed guests with up-close magic and illusions throughout the evening.



Simon Mandal performing magic for Alice and Martin Schwartz

Amidst the entertainment and fun, the true essence of the event shone through as heartfelt speeches and presentations took center stage. After introductory remarks from Sally Rubin, GSWA Executive Director, keynote speaker Congresswoman Mikie Sherrill (NJ-11) engaged the audience, emphasizing the importance of protecting New Jersey's



Posing for their "Polaroid selfie" are Dr. Steve Souza, Board Member Dr. David Robinson, and Dr. Christopher Obropta

environmental resources and highlighting GSWA's efforts and goals. In a memorial to former GSWA board member and Mayor of Morristown, Jay DeLaney, his family and friends were treated to a touching tribute led by Sally, dressed in clothing that reflected his personality. She shared personal memories and stories of his commitment to our mission as images of his life-moments were displayed



Executive Director Sally Rubin sharing memories of former GSWA board member and Mayor of Morristown, Jay DeLaney who passed away on November 20, 2022

(continued on page 21)

By Sally Rubin, Executive Director

Rolling Knolls: Although there is no definitive update at this Superfund in Chatham, several parties met last fall for a facilitated discussion including: the potentially responsible parties, the landowner, Chatham Township, representatives from

the National Wildlife Refuge, EPA, DEP, and Great Swamp Watershed Association. Almost 50 people participated in the discussion which included a possible evaluation of solar panels on site after an appropriate clean up. 🌱

GSWA's 2023 Gala Celebration

(continued from page 20)



Center is Congresswoman Mikie Sherrill (NJ-11), following her keynote address

behind her. Also in attendance, Senator Anthony M. Bucco (NJ's 25th Legislative District) and Assemblywoman Aura K. Dunn, (NJ's 25th Legislative District) presented the DeLaney family with a memorial proclamation. Simon concluded the evening with a final magic performance on stage, inviting audience members to participate.

It takes many hands to pull off an event of this size. We are grateful to our generous Gala underwriters who made the 2023 Gala possible: NJ American Water, Atlantic Health

System, Adrienne & Reed Auerbach, Avelino Law, BASF Corporation, Eagle Cliff Real Estate Partners, Agi & Matt Krauser, PSEG, Valley Bank, and David & Lisa Welsh.

Additional thanks to our donors, advertisers, supporters, and guests; our board and advisory council members for acquiring silent auction items, promoting the event, and assisting with various tasks; the GSWA staff for assisting with the event and silent auction solicitations; and our amazing volunteers. 🌱

What about Paterson?

By Sarah Hunt, Education and Water Quality Associate

In 2023, GSWA's water sampling on the Passaic River extended into Paterson. Our staff has been involved in education and green infrastructure in the city since 2017. Still, many of our members in upstream communities are unfamiliar with the history of Paterson and its close connection with the Passaic River.

The land around Paterson was first inhabited by the Lenape people for over 18,000 years, and it was from their name for the river "pahsayèk" meaning "valley" or "place where the land splits" that our modern name for the Passaic River was born. Following Dutch settlement in the 1600's, the area was divided into plots of land for farming. After the Revolutionary War, Secretary of Treasury Alexander Hamilton saw local manufacturing as the key to financial stability and a world presence in the United States, and the elevation drop of the Passaic at the Great Falls in Paterson, along with proximity to timber and stone, made for an ideal site.

The initial strategy for powering manufacturing with the strength of the river involved a series of "raceways" or channels that diverted water from above the falls and directed it to water mills (later turbines) that powered the manufacturing plants. Production in the area began with cotton and wool processing, and expanded into paper, locomotives and firearms, and ropes and sails used by the navy and merchant vessels. In the 1890's, Paterson was producing half of all the silk in the US, earning it the nickname "Silk City".

With many booms and busts over the years, the greatest fall in Paterson manufacturing was at the end of WWII, when many factories that had supplied wartime goods closed their doors. The large, aging plants of Paterson were unable to compete with newer, cutting-edge manufacturing centers being built in the south and overseas, and by the 1960s only a few Paterson mills were still in operation. Movements to preserve the falls and history of Paterson marked the Historic District as a National Landmark, and in 2009

Paterson Great Falls National Historic Park was established.

Prior to the 1972 Clean Water Act, Paterson's industrial waste, and often its sewage, were dumped into the river to be carried out to sea. Despite the overused adage, "Dilution is the solution to pollution," Paterson's

waste collected in the sediments of the river, especially below Dundee Dam (built in 1854) where the river is tidal. These polluted sediments continue to affect residents along the river, where the water is deemed unsafe for drinking, fishing (for consumption), and swimming. During flooding events, the kicked-up sediment can wash out of rivers and onto the streets of downstream communities.

While dumping of industrial waste is now regulated and enforced, sewage continues to be an issue in times of flooding. With wastewater treatment plants that take in both household sewage and stormwater runoff, any heavy rain has the potential to overload



the system, causing backups (called Combined Sewer Overflows or CSOs). When this happens, the combined sewage and runoff water is discharged into the lower Passaic, leading to health and environmental concerns for residents and wildlife alike.

With extreme weather events becoming more and more common, areas like Paterson that are close to the river and have a high percentage of impervious or paved surfaces, are especially vulnerable to flooding. The added weight of contaminants and sewage in this floodwater pose public health risks to residents, and lead to more “flood day” than “snow day” school closures in Paterson schools.

Despite these issues, many Paterson residents are able to see the Passaic River’s beauty and environmental value. A number of parks along the river provide recreational benefits and green spaces where they are most needed and connect the residents to the river. Restorations at the Paterson Great Falls National Historical Park will bring a new visitor cen-

ter, providing a hub for residents and visitors to learn about the history of the Passaic.

As GSWA’s sampling has extended from the headwaters of the Passaic into the main branch, results from downstream areas will



give us insights into the different types of pollution in those areas. Our downstream education in Paterson has also expanded to include rain garden planting and programming on green infrastructure. Paterson high school students

have been able to visit the Conservation Management Area to study the ecology of the area and learn what it takes to become a water quality scientist.

While there are many differences between land use and history along the length of the Passaic, the river connects communities from upstream and downstream. Learning and sharing the responsibility of caring for the water allows us all to be stewards of the river and our communities. If you haven’t been downstream, please take this as a sign to visit the Paterson Great Falls and enjoy the diversity and history of Paterson. 🌳

<https://www.nps.gov/pagr/learn/historyculture/the-birthplace-of-the-american-industrial-revolution.htm#:~:text=The%20height%20of%20Paterson's%20industrial,the%20nickname%20%22Silk%20City%22>

<https://www.northjersey.com/story/news/paterson-press/2019/03/19/paterson-nj-power-plant-license-may-shape-great-falls-40-years/3201647002/>

<https://www.epicwaterfilters.com/blogs/news/paterson-new-jersey-water-quality-report#:~:text=Sources%20Of%20Drinking%20Water%20in%20Paterson%2C%20New%20Jersey&text=Passaic%20Valley%20Water%20Commission%20withdraws,Little%20Falls%20Water%20Treatment%20Plant>

<https://www.npr.org/2010/11/19/131167397/the-dirty-truth-about-that-other-jersey-shore>
chrome-extension://efaidnbmnnnibpcajpgclefindmkaj/https://www.njfuture.org/wp-content/uploads/2014/05/Paterson_Final.pdf

Avoid Planting Invasive Plants!

By John Landau, guest author

We often hear about the importance of planting native plants, but it's also critical to steer clear of planting invasive plants, and to actively remove them. Invasive plants are non-native plant species that grow aggressively and compete with native plants for water, light, nutrients, and space. Common plants like Japanese barberry, Bradford pear, and Asian wisterias that have escaped from our yards pose a threat to local biodiversity by outcompeting native plants and harming ecosystems.

One local example of this damage is right in our backyard. Morristown National Historical Park/Jockey Hollow was recently classified to have a regeneration status of "imminent failure"* . This means the habitat will no longer be able to regenerate due to the abundance of invasive plants and deer that are killing trees and preventing regeneration. Unfortunately, this classification almost certainly applies to the many thousands of acres of public and private forests in NJ.

How does this happen? Invasive plant seeds are transported from our yards by wind, water, birds, and other wildlife unnoticed by us. Of the thousands of non-native ornamental species that have been introduced to New Jersey, about 150 have aggressive growth traits that classify them as "invasive". As they spread, invasives slowly cripple our natural areas by replacing native plants while failing to perform their complex and critical ecosystem roles.

Invasive species damage has increased significantly in the past 50 years due to land development, deer populations, and other stressors. Changes in climate, like shorter winters, enable some species to spread more

successfully. The natural areas crucial for New Jersey's climate adaptation, stormwater management, drinking water, recreation, and biodiversity are approaching a critical threshold where they can no longer sustain themselves.

Undoing this damage is challenging, but reducing the presence of invasive plants in our yards can slow the spread of established invasives and, more importantly, prevent emerging and potential invasive species from becoming widespread. You can find a list of invasive plant species on the NJ Invasive Species Strike Team (NJISST) Do Not Plant List 2023. The list categorizes each threatening species as widespread, emerging, or potential and is regularly updated by a professional committee.

GSWA, the Native Plant Society of NJ, and other sources can help you to select native plants to use instead of invasives. This NPSNJ Replacement Species Guide describes great replacements for eight common invasives. Please share it around.



Jan 2024 photo: A dense thicket of burning bush and European privet have crowded out the native understory (including tree seedlings) in this area of Morris County's Tourne Park.

Despite the challenges, there is hope. Studies indicate that native plant communities can recover if we reduce general stressors and limit the spread of invasive species.

Let's collectively stop planting invasives in our landscapes now! Our New Jersey forests will be grateful. 🌲

*<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2837>

Pledge To Not Plant Invasives

Please "Make The Pledge" to NOT plant any of the invasive species listed on the New Jersey Invasive Species Strike Team (NJISST) "Do Not Plant List" and to plant native species instead.



Make Your Pledge and sign up to receive GSWA Plant For Pollinators communications.

GSWA Joins Congresswoman Sherrill to Advocate for Native Plant Legislation

(continued from page 1)

a filter, absorbing excess nutrients and pollutants from stormwater runoff and working to purify the water before it reaches surface waters and aquifers. These root systems also stabilize soils, preventing erosion and helping stormwater runoff to percolate down through the soil which also helps to reduce the impacts of flooding.”

Additional speakers at the press conference included Shawn LaTourette, NJDEP Commissioner; Anjuli Ramos-Busot, Director of Sierra Club NJ Chapter; and Jean Epiphan from Rutgers Cooperative Extension of Morris County, who recently participated in GSWA's Plant for Pollinators webinar. Each panelist emphasized the importance of collaboration and the advantages of using native plants to enhance and revive habitats throughout New Jersey.

“I am grateful to the environmental advocates across New Jersey who brought this issue to my attention,” said Congresswoman Sherrill, who is working alongside Representatives David Joyce (OH-14), and Senators Martin Heinrich (D-NM) and Mike Braun (R-IN) on this legislation. “I look forward to our continued partnership as I work to ad-



Sally Rubin, GSWA Executive Director, left, with Commissioner John Krickus, Member of the Morris County Board of Commissioners

dress flooding, protect our planet, and lower costs for New Jerseyans.”

The press conference was attended by approximately 70 people from various local environmental organizations invited by Rep. Sherrill. In addition to Sandra LaVigne, GSWA was well represented by the Executive Director, Sally Rubin, board members Lydia Chambers, Mayor Carolyn Dempsey, and Dot Stillinger, and advisory council members Thelma Achenbach and Russ Furnari, as well as many long time GSWA volunteers.

Stay tuned for updates on this significant proposed legislation. 🌲

Dam Removal in NJ: An Overview

By Ginger VanRyzin, Education, Land Steward and Water Quality Associate

Ever since the beginning of time, people have harnessed the power of rivers and streams. During the industrial revolution, cities and industries grew alongside rivers to power their factories, transport goods, and more. Here in New Jersey, the Great Falls and the mighty Passaic River allowed Paterson to create an industrial empire from its textile and paper mills to its locomotive and firearm factories, and to so much more. Like with most industrial companies at that time, the factories in Paterson wanted to expand but it was soon apparent that the Great Falls would be their limiting factor.

In the late 1850s, the Dundee Manufacturing Company (under the parent company Society for Establishing Useful Manufactures) set off to dam the Passaic River downstream of the Great Falls to harness more of its energy. The Dundee Dam and the Dundee Canal projects were completed in 1860, providing water and power to factories in the city of Passaic. During the late 19th century, the Dundee Canal was used for a variety of industries, from textile mills to rubber production, along with important transport of those manufactured goods. In 1999, the National Register of Historic Places added the Dundee Industrial Historic District to its list because of its historical significance. By the turn of the 21st century, long after railroads and roads replaced the need for canals, much of the canal

was filled in to extend Route 21. Although Dundee Dam and small portions of the canal still survive today, there is a question that is becoming increasingly important to numerous New Jersey communities: What happens to these dams when they have outlived their purposes?

Dams hold many important purposes, including irrigation for agriculture, recreation, drinking water storage, and much more. Because there are so many human benefits of dams, the ecological damage they cause is often overlooked. It might not seem like dams would be detrimental to ecological communities, since there are natural lakes and ponds present in New Jersey, but the reality is most water bodies you see are man-made reservoirs.

According to NJDEP, there are an estimated 60 to 70 natural lakes, while there are around 1,700 regulated dams and even more unregulated dams and weirs.

A dammed river is essentially cut in to two, if not more, and becomes disjointed from its other halves. Wildlife use rivers as

paths to move from one area to another and cannot move freely when rivers are dammed. This becomes increasingly important to migratory fish species, including American eels, who spawn in the ocean and migrate upstream to creeks and brooks to spend their adult life. Dams serve as a major hurdle to these species, and eventually lead to increased mortality for those who try to traverse over these dams.



Figure 1: Dundee Canal in 1995, after much of it has already been filled in (left) and the present-day canal after Route 21 had been extended (right). Photos courtesy of Google Earth.

In a natural system, sediment is transported and deposited along the riverbanks and stream bottoms until it eventually reaches the ocean. When a dam is in place, that sediment will get trapped and eventually fill in the pond or lake, making it shallower as it ages. These ponds and lakes in turn have a much higher water temperature on sunny days, causing an overall decrease in dissolved oxygen (DO). Water temperature is directly related to the amount of DO present: the colder the water the more DO available for aquatic organisms. Species of fish, such as trout, require this cold, oxygen-rich water to survive, and when water temperatures get above 75°F trout populations can experience major die-offs. In a free-flowing river, on the other hand, water temperatures are kept lower with tree canopies shading the river with pockets of cold, deep water and shallow, warmer water. This is why on a hot, summer day many people flock to creeks and rivers to cool down and swim.

Swimming near dams, however, is a public safety hazard with about 50 fatalities occurring nationwide each year according to the Association of State Dam Safety. This is because dams create reverse currents, circulating at the base of a dam making it very difficult for swimmers to escape. Along with this, most dams in New Jersey are also over 50 years old, which is about half the typical lifespan of a dam. Aging dams are more likely to fail when improperly maintained and will cause major detrimental impacts on communities downstream of the failed dam.

The Dundee Dam is over 160 years old

and has outlived its original purpose. It serves as a barrier for migratory fish species, disrupts sedimentation deposition, decreases dissolved oxygen in the water, and serves as a public safety concern. So, why have we not removed it yet?

The lower 17 miles of the Passaic River, from Newark Bay upstream to Dundee Dam, is the Diamond Alkali Company EPA Superfund Site. Chemicals that were used in herbicides such as “Agent Orange” and pesticides DDT were dumped in the tidal section of the river, causing contamination up to Dundee Dam. Removing

this dam would cause the contaminated mud to be disturbed, potentially contaminating areas further upstream.

Although the future looks bleak for the removal of Dundee Dam to restore the Passaic River, there are so many other dammed rivers in New Jersey alone. Organizations like the Musconetcong Watershed Association and the Nature Conservancy have removed over 50 dams to date in New Jersey, restoring our free-flowing rivers back to their natural, original states. 🌱

Works consulted:

Hamilton, Pat and Laura Craig. Restoring Free-flowing Rivers. New Jersey Division of Fish and Wildlife. https://dep.nj.gov/njfw/wp-content/uploads/njfw/digfsh_damremoval.pdf

Raber, Michael S. (1987). *Dundee Canal: Headgates, Guardlock, and Uppermost Section*. Philadelphia, Pa: National Parks Service. <https://tile.loc.gov/storage-services/master/pnp/habshaer/nj/nj1000/nj1000/data/nj1000data.pdf>

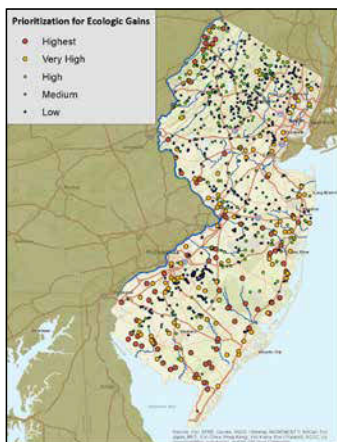


Figure 2. Dam removal prioritization for ecological gains. Map courtesy of njdams.org

Another year, another 26,000 plants! GSWA's Native Plant Program 2024

By Ginger VanRyzin, Education, Land Steward and Water Quality Associate

It is that time of year again! Our fourth annual Plant for Pollinators Program is ramping up, with our staff and volunteers hard at work creating this year's content and assembling all the moving parts that make this program so successful.

Plant for Pollinators Web Series

For our first Native Plant Program back in 2021, we thought it would be useful to have an informational webinar on the importance of native gardening and an overview of what plants were available for the sale. We had no idea the demand there was for native gardening resources and native plants. So, when the next year rolled around, we prepared a larger webinar series, with three webinars hosted in the months leading up to the plant plug sale. Last year, we expanded our webinar series to

four webinars, three with acclaimed speakers in their area of expertise and finished off with the program overview. This year, we have our four webinars set, with an additional Q&A session with a panel of local native gardener experts.

So far for this year, we have over 300 registrations for the four-part webinar series, with additional signups for each individual webinar as well. Our kickoff webinar with Jean Epiphan went off without a hitch with over 100 participants attending and another 150 views on its recording. During her talk, Jean covered the native vertical structures of a New Jersey forest and why it is important to mimic these structures in our own yards.

With the first webinar such a success, we are excited for our second (on February 15) with John Cortney, owner of Kind Earth Growers, presenting on native ground covers (some of which may be available in this year's program) and how to use them in your garden. After John's talk, March 13 rounds the corner with Kelly Gill, senior pollinator conservation specialist from XERCES Society, will discuss ways each individual gardener (or even non-gardeners!) can help protect pollinators and other beneficial insects in our gardens, during both the growing season as well as the cold winter months. Last, but certainly not least, we have our very own Hazel England joining us to share this year's program plants both old and new on the first day of April.

Although these four webinars cover multiple topics within the realm of native gardening, there are still so many more questions that may not have been answered. As



Figure 1: Hazel England Loading Up 26,000 plants from the 2023 Program

a result, new to this year's sale, we added a bonus "Ask-The-Experts" panel on April 11 to answer any remaining questions gardeners may have about their plants. Three local experts in native gardening, Bridget Daley of Madison, Jessica Miller of South Orange, and Bianca Wright of Westfield, have volunteered to answer your questions – whether you're new to the gardening game or seasoned – to help make your garden the best it can be.

2024 Species Offering

Last year, we seemed to hit our magic number distributing almost 26,000 plants to gardens new and old throughout the watershed and beyond. This year we decided to stick with another 26,000 plugs and increased the total species to 37 different habitat-providing perennials.



Figure 2: Val Thorpe's new pollinator garden.

The long-awaited kit and individual species preview lists for this year's program has been released. The preview catalog can be found on the main page of our plant sale website. Like last year's program, we will have six different gardening kits; however, we are happy to share that this year's kits will cover a wider array of garden conditions to including plants that like wetter, shaded sites as well as sun gardens that suffer frequent

deer browsing. Along with the Wet Shade and Deer Resistant kits, we have updated kits from last year with a new mix of species. These reimagined kits are the fan-favorite Best Behaved (lower growing, less spready plants), Wet Sun (formerly Rain Basin), Dry Sun (formerly Sidewalk-Container) and Dry Shade. Each 25-plug kit comes with five different species, with different bloom times and colors to maximize the diversity of wildlife it can support.

Plant Sale Partners

As our Native Plant Program continues to grow, so do our partners! We have a record number of 40 partners this year, made up of 25 organizations and 15 towns partnering with GSWA, with a possibility of more joining within the coming months. Of those partners, we have 13 different pickup locations dispersed throughout Essex, Morris, Somerset and Union Counties.

A Shout Out to all our Volunteers

Without the help of our dedicated volunteers and supporters, this program could not have grown to the scale and success that it is



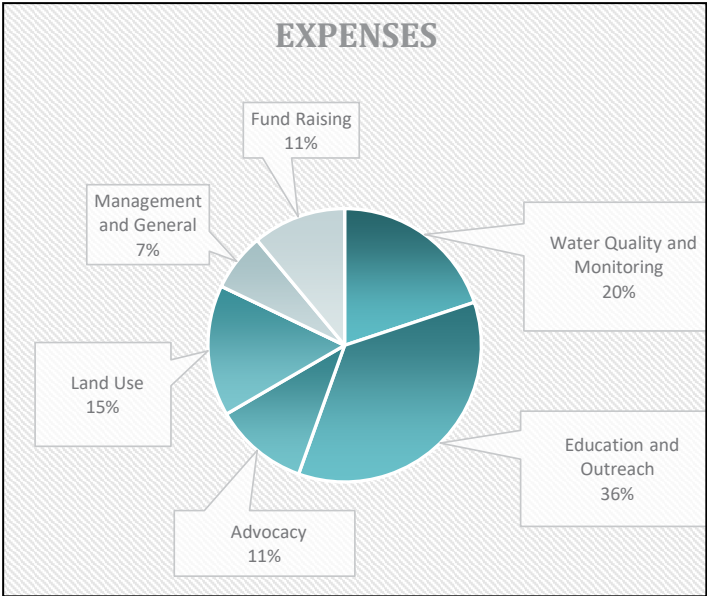
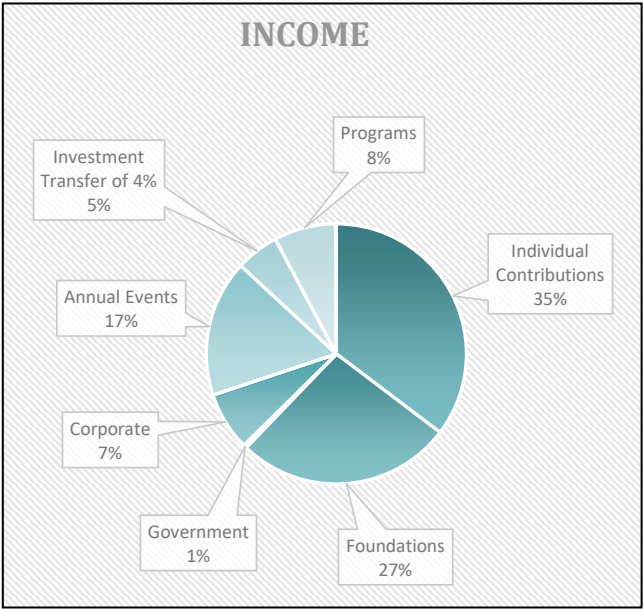
Figure 3: Volunteers processing plants at last year's program.

today without you donating your time and effort. A big thank you for all your hard work in spreading the ecological benefits and personal joys of native gardening! 🌲

Financial Report: Statement of Activities for the Fiscal Year Ended June 30, 2023

By Sue Levine, Director of Finance

INCOME	
Individual Contributions	\$ 401,707
Foundation Support	\$ 305,900
Government Grants	\$ 4,653
Corporate	\$ 82,994
Annual Events (Gross)	\$ 193,108
Investment transfer - (4% draw) - see Note 1	\$ 60,986
Programs	\$ 88,192
Misc Income & In-Kind	\$ 292
Total from Primary Operations	\$ 1,137,832
In-Kind Easement Donation	\$ 550,000
Total Operations	\$ 1,687,832
EXPENSES	
Programs:	
Water Quality and Monitoring	\$ 223,441
Education and Outreach	\$ 399,200
Advocacy	\$ 125,159
Land Use	\$ 173,900
Total Program Expense see Note 4	\$ 921,700
Management and General	\$ 76,905
Fund Raising	\$ 123,992
In Kind Easement Donation see Note 5	\$ 550,000
Total from Primary Operations	\$ 1,672,597
SURPLUS/(DEFICIT) - see Note 1,2 (a)	\$ 15,235
INVESTMENT ACTIVITY	
Board Designated Investment Market Value Prior Year see Note 3	\$ 1,199,816
Investment Income & Interest Earned (b)	\$ 44,598
Gain/Loss on Investments (c)	\$ 137,870
Net change - see Note 2	\$ 182,468
Transfer to Operational Funds see Note 1	\$ (60,986)
Investment Market Value at Fiscal Year End	\$ 1,321,297
Operational Reserve Funds Invested Market Value Prior Year	\$ 324,838
Change to Operational Funds Invested	\$ 159,606
Operational Reserve Funds Invested at Fiscal Year End	\$ 484,444
Total Funds Invested 6/30/2023	\$ 1,805,741



- Note 1:** These funds include the Investment & Endowment Transfer 4%.
 The organization did not use all of the 4% allotted for operations from the Investment & Endowment Funds.
 The unused funds were invested as Operational Reserve Funds.
- Note 2:** To tie to the audited financial statement's "change in net asset" line, you need to add (a), (b), and (c) above.
 Save Drew Forest restricted funds of \$13,199.75 from a prior year were paid to Save Drew Forest in FY 2023
- Note 3:** The Endowment has \$65,080 permanantly restricted funds



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