



**Great Swamp Watershed Association**

The Passaic River WATERKEEPER® ALLIANCE Affiliate



# Across the Watershed

**Fall-Winter 2024-2025**



*Protecting our Waters and our Land for More Than 40 Years*

## Potential New Headquarters for GSWA in Green Village

*By Sally Rubin, Executive Director*

**G**reat Swamp Watershed Association (GSWA) is excited to announce that we are under contract with PSE&G to acquire 3.4 acres of property in Green Village, Chatham, NJ, as our new headquarters. Did I say excited? I meant ecstatic! The property includes a house for our offices and a barn to be renovated for our programming. PSE&G, Great Swamp National Wildlife Refuge (Refuge), and GSWA have collaborated to make this transformational acquisition a reality. Owning this property will suit our specific needs now and allow us to make appropriate modifications for the future. We hope to close the transaction in early 2025 with an anticipated capital campaign to be launched after the acquisition is completed for renovating the barn.



*Main building offers more office space for our growing staff.*

- ✓ The property far better fulfills the GSWA mission and will facilitate more and better environmental education to children and adults.
- ✓ The space is wide open, flat, and has a pond on the property which could be used for educational water quality programs, enabling us to offer outdoor programming onsite.
- ✓ Its proximity to the Refuge will enable GSWA to work even more closely with this important entity. The Refuge will own approximately 50 acres surrounding the site.
- ✓ Its location is much more convenient and visible to our members and visitors than our current outdated and more isolated location.
- ✓ GSWA currently rents our office space. Owning this property will allow us to allocate those funds toward repairs, maintenance, future capital needs, and expand general operations.
- ✓ The property offers larger office space for a growing staff.
- ✓ The location provides significantly more and improved parking for visitors.

*(continued on page 23)*

# Collaborating for a Sustainable Future: BASF's Ongoing Support for GSWA's Mission

By Lynne Applebaum, Director of Institutional Relations

**B**ASF, a company that creates “chemistry for a sustainable future” is a partner GSWA truly values. Two of the BASF charitable giving foci are Science Education and Environment, which both embrace primary elements of GSWA’s mission. BASF support has included sponsoring GSWA’s annual gala celebration, which is our main fundraiser, and providing unrestricted funding to support our mission programs.



*Teachers working on an experiment during a Climate Change Professional Development Workshop*

“BASF is honored to partner with GSWA to support the mission to improve the health of the Passaic River through science, education, land preservation and stewardship. At

BASF, our commitment to a sustainable future includes creating chemistry in the communities in which we live and work. We are proud that BASF’s support to GSWA allows the organization to grow and make a difference in New Jersey,” says Molly Birman, BASF Senior Manager of External Communications.

GSWA delivers water quality-based STEM environmental education to school age students and adults across the Passaic River region. We are proud to now provide professional development workshops to NJ teachers on how to incorporate climate change education into their curriculums. This is one of a number of climate change initiatives we are involved in to address this growing challenge, alongside our regular water quality monitoring, land stewardship and preservation, and advocacy.

The goal of clean water and clean air is shared by BASF, who continue to step up and provide funding for GSWA’s critical programs. These goals have no geographic boundaries.

We are very grateful to BASF for this longstanding partnership. 🌱

## 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](mailto:srubin@greatswamp.org).

# 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](https://GreatSwamp.org/OneRiverVideo)

# Upcoming Programs and Events



Scan to Register

Registration: Unless otherwise noted, register at [GreatSwamp.org](http://GreatSwamp.org), scan the QR code, or call 973-538-3500.

## Members Only: Fall Flora and Fauna Hike September 17 at 4:00 pm - 6:00 pm

*Glenhurst Preserve, 185 Mountain Ave,  
Warren, NJ*

Thank you for being a GSWA member! As a show of appreciation, let us treat you to a meander through two miles of Passaic floodplain meadows and forests while admiring the beautiful fall fauna and flora. We will pass small ponds and walk along both Cory's Brook and the Passaic River. The hike will be roughly two miles with relatively flat elevation. This is a free hike available to GSWA members only! Not a member? Not a problem. Purchase an annual family membership today at the discounted price of \$40, and you can come along!

## The Chathams & Madison Town-Wide Yard Sale Fall 2024

**October 19 at 9:00 am - 2:00 pm**

One person's trash is another person's treasure. Now is the time to start checking your closets, basement, and garage for those hidden treasures and prepare to host a yard sale at this community event. Register your sale at [GreatSwamp.org/events](http://GreatSwamp.org/events) and check back on October 17 for a digital map of all yard sale participants and a list of sale items before you head out to shop at this amazing three-town-wide yard sale! \*\*You must be a resident of

Chatham Township, Chatham Borough, or Madison to list your sale. Tax deductible registration fee \$10.

## Gala & Silent Auction - A Green Gathering October 24 at 6:00 pm - 9:30 pm

*Brooklake Country Club, 139 Brooklake Road,  
Florham Park, NJ*

Indulge in an unforgettable evening complete with fine dining, great banter, and spirited bidding at our premier annual fundraising event. This year, we honor the environment with our theme, A Green Gathering. Dive into lively discussions that will include native gardening, vegan cuisine, conservation, environmental education, and more, while enjoying a gourmet dinner. Each table will host an environmental-focused expert eager to share their passion and converse with their fellow diners. With over 40 experts in attendance, this is your chance to connect with like-minded individuals and make a difference.

## Madison Tree Identification Walk - Free October 27 at 1:30 pm - 3:30 pm

*Conservation Forest at the Madison Recreation  
and Conservation Complex*

*184 Ridgedale Avenue, Madison, NJ*

Have you ever wanted to learn how to identify trees? Join us for a wander in the Conservation Forest of the Madison Recreation and Conservation Complex. Along the walk, you will learn how to identify native trees by examining autumn leaves, bark, persistent fruit, and overall tree shape. This fun and educational opportunity will include general tree ID techniques and characteristics for common native trees in Madison. Participation is free! This walk is co-sponsored by Friends of

For more information on upcoming events and to register, visit [GreatSwamp.org](http://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.

Madison Shade Trees, Madison Shade Tree Management Board, and the Madison Environmental Commission.

### **Climate Proof Your Garden - Free October 30 at 7:00 pm - 8:30 pm**

*Westfield Public Library, 550 E Broad Street,  
Westfield, NJ*

How can you begin to climate-proof your yard to adapt to a changing New Jersey Climate? Since the wets get wetter and the droughts more intense, what's a gardener to do? Join us for this hands-on workshop where we will share Xeriscaping and water conservation gardening strategies along with plant choice and all round environmentally aware gardening strategies to help you weather the storms, droughts and more that seem to be New Jersey's new weather norms.

### **Veterans Day Kid's Hike November 11 at 10:00 am - 12:00 pm**

*Great Swamp Watershed Association's CMA,  
1 Tiger Lily Ln, Morristown, NJ*

Honor Veterans Day with a special Veterans Day kids hike through the Great Swamp! Explore the wonders of our floodplain forest as we search for signs of wildlife and learn about the unique ecosystems that call this area home. Bring your parent along for this fun adventure. Kids 12 and under: \$10 (including a free parent ticket) Kids over 12 and adults on their own: \$15 Please note: All 12 and under must be accompanied by an adult.

### **Fall Colors Hike - Intermediate Level November 16 at 10:00 am - 2:00 pm**

*High Mountain Park Preserve, Red  
Trailhead Intersection of Navaho Trail Drive  
and Reservoir Drive, Wayne, NJ*

Join us for a hike through the scenic High Mountain Preserve. This intermediate-level hike covers approximately 4 miles with a sig-


nificant elevation change of 700 feet. As we explore the preserve, we'll enjoy some bird-watching. This is a prime location for raptor migration, so we will keep our eyes peeled for these majestic creatures. We'll also enjoy a breathtaking view of the city and, weather permitting, a visit to a cascading waterfall. This hike offers a unique opportunity to experience the beauty of the Watchung Mountains. Don't miss this chance to challenge yourself and connect with nature. Be sure to bring plenty of snacks and water. \$15 for members, \$20 for nonmembers.

### **Zoom Webinar: Calculate Your Eco Footprint - Free November 19 at 7:00 pm - 8:30 pm**

Join GSWA staff to learn more about the great tools you can use to audit your personal household and cumulative ecological footprint. We'll calculate your water, carbon, and energy use and explore ways in which you can reduce your ecological impact to live a watershed-friendly lifestyle.

### **DIY Winter Foliage Wreath Workshop Two sessions: December 4 at 5:00 - 6:30 pm and 7:00 - 8:30 pm**

*Great Swamp Watershed Association HQ,  
568 Tempe Wick Rd, Morristown, NJ*

It's not winter until the wreath is on the door. Put on your warm clothes and come craft a homemade winter wreath made from native evergreens and other native plants. You'll decorate your masterpiece with pinecones, berries, and other items found in nature. While your creativity blossoms, you'll learn more about the natural items being used in this craft. Price covers everything you need to leave with a finished piece that's ready to hang on your door or give as a gift. Hot cider and cookies will be served. \$35 for members, \$40 for nonmembers. 

# Climate Change Learning Collaborative Workshops Begin!

By Hazel England, Director of Education & Outreach, Land Steward

If you had braved the high temps and visited the GSWA Conservation Management Area this August, you might have been forgiven for thinking you had stumbled into a grown-up game of laser tag! Twenty teachers could be spotted rushing around excitedly pointing laser temperature guns to “shoot” the temperatures of their surroundings as part of an activity learning about how different environmental conditions affect temperature. The participants were surprised just how vast the difference between sun and shade conditions can be. (Spoiler alert- it’s a lot!! Up to 31° F between the black top and forest understory shade a mere 20’ apart.) This activity, one of many that took place over two weeks in August, was conducted as part of a series of teacher professional development (PD) workshops Great Swamp Watershed Association has been running this summer as part of a collaboration with Ramapo College and the New Jersey Department of Education.

To back up a little—In 2020, New Jersey adopted Student Learning Standards (NJSLS) and became the first state in the nation to include climate change across all content areas for the 1.5 million students of the state. Laying out specific learning standards

helps to prepare students to understand how and why climate change is happening, the impact it has on local and global communities, and how students can become future change-makers to develop sustainability projects and strategies to ameliorate the consequences of the warming planet they are inhabiting. By incorporating learning standards across the curriculum, it takes learning about climate change beyond its’ traditional home in science class and into math, social studies, art and beyond. These standards encourage schools to create robust, cross-disciplinary learning units, and expose students to information presented in a range of ways. For example, one middle school learning standard “Compare the environmental effects of two alternative technologies devised to address climate change issues (technology used to protect and/or mitigate health impacts) and use data to justify which choice is best” could be approached from any one of a math, computer science, library research or language arts class. The result should be that graduating New Jersey students leave with a deep and broad understanding of the issues and solutions necessary to address climate change and have ideas about the behavior change and resilience needed to address the issue in their home state.

To ensure these climate standards were being more broadly used by teachers, the NJ Dept. of Education funded the Climate Change Learning Collaborative (CCLC). Four universities around the state: Ramapo, Rutgers, Monmouth, and Stockton are acting as hubs, working in partnership with local area nonprofit organizations to roll out teacher PD and resources that is truly place-based



George LaVigne teaching how to implement Climate Change into language arts activities



*Climate change in action- flooding in the heart of the swamp after 4.5 inch rain storm fell the night before our workshop*

and local in nature. GSWA was approached by Ramapo college late in spring to become one of the non-profit partners, in addition to Meadowlands Education Center and the School of Conservation. The Northern region serves some of NJ's most densely populated urban areas, including Passaic, Essex, Bergen, Hudson, Morris and Warren counties. Of the 117,000 teachers in NJ, more than half teach in our Northern region. After some hurried grant writing and planning, the workshops were advertised and filled rapidly. GSWA offered two concentrated weeks of PD in August and has additional monthly in-person and virtual workshops throughout the school year. The \$50,000 grant also funded six climate science related field trips for students within the region, covering busing and substitute teachers in addition to program fees.

We feel it makes total sense for an organization whose mission is focused on water quality, quantity, and area biodiversity to use climate change as the lens through which to help teachers understand and teach how local Passaic Watershed communities will change in the coming years because of a warming earth. Our all day field and classroom-based workshops allowed us to present the science from our own area of expertise. They focused on how climate change will affect the Passaic rivers water quality, quantity, and how warm-

ing and changing temperatures are disproportionately impacting New Jersey. Teachers used current data from State Climatologist (and GSWA trustee) Dave Robinson on New Jersey's changing precipitation and temperature over the last decades to build understanding of how increased concentrations of greenhouse gases lead to wetter wets and warmer warms for our state. Field-based water quality collection data was the basis for understanding how more powerful storms can impact pollution loads and biologic communities. We often started the day with a reflection activity, asking teachers, 'what do you see as the biggest impediment to teaching more about climate change in your classrooms' or 'how has climate change impacted you or your family' and used the answers they gave us to focus the



*Playing our 'climate Change' behavior game to see if global temperature rise can be reversed*

meat of the workshops to help them gain confidence and make the work personally relevant. Teachers shared that they feel that they don't know the facts well enough, or are worried about getting details wrong, or treading into politicized discussions... We were able to reassure them that there are many high quality, peer reviewed sources for teaching materials, and we shared many with them, including focusing on high-quality sources such as NASA, NOAA, and Rutgers (continued on page 8)

## Climate Change Learning Collaborative Workshops Begin!

*(continued from page 7)*

University Climate and Energy Institute. We also conducted many hands-on activities and gave teachers additional materials to take the lessons they took part in back to class with them. Teachers crafted experiments to test the efficacy of sunscreen on UV color changing beads, became environmental consultants tracking plumes of hidden ‘pollutants’, and even assumed the role of vulnerable or not nations at the UN Climate Change Convention to discuss strategies to reduce CO<sub>2</sub> emissions.

Learning by doing lets teachers see how these lessons and activities fit within their



*Teachers sample macro-invertebrates on the Passaic River sea to source field trip*

own classrooms, and time during breaks and discussion groups was filled with enthusiastic sharing of ideas, resources and lessons peer-to-peer. We focused learning on the disproportionate impacts of climate change in our urban and underserved communities... Passaic Watershed communities such as Paterson, Orange, Wayne, and Newark deal with frequent flooding, decreased air quality when temperatures soar or climate impacted wildfires send smoke to the region, or by having limited places for residents to recreate in shady, cool spots. Their communities are warmer than the surrounding suburbs because of the buildings – a symptom known as ‘heat island effect’. All of this learning culminated in the idea of



*Creating ‘pollution plumes’ for other groups to seek out in a lesson on water movement*

action projects that school communities can undertake to encourage students to have a voice in solutions. We will need to focus on addressing climate change throughout our communities, and schools can be a great place to start. Teachers focused on specific school locations from within the group and began to design how they might involve students in projects to alter those communities to help either manage more stormwater, offer shadier places for students to play, or deal with greenhouse gas producing food scraps. These weeks were joyful, immersive, exhausting, empowering, and emotional in equal



*Teachers investigate what contributes most to sea level rise—Melting glaciers or sea ice*

measure, but the teachers who attended are (hopefully) in a better place to begin to implement student driven climate change education into their classrooms in the upcoming school year. And for all those that missed the





Sampling in Riverfront park Newark on a day-long field trip from sea to source learning about water quality and flood impacts of climate change



Teachers share their school design projects for reducing impervious cover in their school site

workshops - the CliffNote version is that: Climate change is real. Yes, it's caused by us. Yes, it's bad. Scientists overwhelmingly agree on the facts. But there is hope if we change our behaviors and focus our energies on building

resilience in our communities, and our students need to be equipped with the skills, empathy and awareness to lead those changes.

For more information on upcoming programs and workshops visit the Climate change learning collaborative hub at <https://climatecollaborative.ramapo.edu/> 🌲

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# Bacteria Sampling

By Alex Sloane, Water Quality & Education Associate

**H**aving recently returned from nearly a decade living and working in Palm Beach County, I have been busy adjusting to life back in New Jersey – it’s great to be back! Getting out in the Great Swamp and exploring trails I haven’t been on in years has felt like getting reacquainted with an old friend. I am excited to now be taking a more active part in the conservation and restoration of this ecosystem as part of the GSWA team.

In Florida I was mainly working in the estuary part of the Lake Worth Lagoon watershed – monitoring, educating about, and attempting to mitigate the myriad issues that arose from having a 477 square mile watershed draining into an 11.3 square mile lagoon (that’s a watershed 42x larger than its estuary!) with only two inlets, 30% natural shoreline, and some of the highest biodiversity in Palm Beach County. If you think that sounds tough, the Passaic River’s watershed to estuary ratio is even bigger! I’ve moved up-river since joining GSWA and now I spend most of my time in the freshwater parts of our watershed. I have spent the summer getting to know the streams and brooks that run through the Swamp, as well as exploring up and down the Passaic River.

My big project for the summer has been running the five-week long bacterial sampling program, and it has been a great way to get to know the watershed and the challenges our waterways face. During these weeks we test our waterways for signs of coliform bacteria, specifically *Escherichia coli* or *E. coli*. Coliforms are found in the soil, surface water, and

human and animal waste, so it is not surprising or alarming that we see high concentrations of them in our samples- that is what we would expect from samples collected in the wild. That’s why we also look at the concentration of *E. coli*, which is a species belonging to the fecal coliform group. *E. coli* is found in

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**Poet, activist, and farmer Wendell Berry wrote: “Do unto those downstream as you would have those upstream do unto you.”**

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the GI tract of warm-blooded animals and is not generally found growing and reproducing in the environment, so its presence in our waterways is an indicator of fecal pollution. The most common sources of *E. coli* in our water include storm runoff, waterfowl, agriculture, and sometimes sewage or septic leaks.

Our Stream Team volunteers sample from the source of the Passaic in Mendham down to Dundee Dam in Garfield, as well as several streams in and around the Great Swamp that eventually flow into the Passaic. We are hoping to expand our testing sites even further downriver in the coming years. This summer has been marked by extreme heat, heavy precipitation, and localized flooding. I watched the Passaic River go from barely a trickle over Dundee Dam to a full-blown cascade in the course of a week. Some weeks we couldn’t sample certain sites as they were underwater or inaccessible due to flooding, other weeks we couldn’t sample because the water was too low. While seasonal fluctua-

tions are normal, this rapid rise, rush, and fall of water is problematic for both human and natural communities, and it tells us that there are not enough places for the water to go. The increase in impermeable surfaces, especially as we move downstream, means that more and more water is being funneled into our waterways without a chance to be absorbed by vegetation or back into the ground. This water brings with it pollution, fecal matter, litter, and other contaminants from the land. The data collected from our bacterial sampling program, coupled with biannual visual habitat assessments, quarterly sampling of chemical parameters, and macroinvertebrate surveys, help us paint a more detailed picture of the issues facing our water quality and the health of our watershed ecosystems.

We often see a difference in water quality in areas that have more native plants or a more natural or 'green' bank or buffer zone, such as in our Conservation Management Area. Having native, planted banks helps filter and hold the water so it doesn't flood into the waterway all at once, and it protects the banks from erosion. Slowing the water

down also helps maintain the macroinvertebrate communities and their habitats and keeps them from being swept downstream or smothered by sediment washing in with the influx of stormwater. Buffer zones that allow water to be absorbed back into the soil help replenish the groundwater and aquifer levels and reduce run-off and flooding.

Poet, activist, and farmer Wendell Berry wrote: "Do unto those downstream as you would have those upstream do unto you." The work that we do in the CMA, the Great Swamp, and the surrounding areas to hold more water, reduce flooding, and improve water quality and flow has a direct impact on communities downstream. Over two million people get their drinking water from the Passaic River, it is a source of life for many human and natural communities, and it shaped the culture and history of this region. The river connects us all – literally, and actions as simple as picking up your pet's poop, planting native plants, reducing cultivated lawns, or building a rain garden are things many of us can do to make a difference that will be felt, and appreciated, downstream! 🌲

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## From the Financial Corner

*By Sue Levine, Director of Finance*

**O**ur fiscal year of June 30, 2024, started the year off with solid net gala results, and finished with slightly stronger corporate results and another strong year for the Native Pollinator Plant Program. These were offset slightly by lower-than-expected Individual Donations from our Major Donors and the Music Fest, which again faced weather challenges. We are grateful for the continued support which ended the year with operational revenues of \$1.1 million (M). Our operational expenses

were also just over \$1.1M resulting in breakeven results, which were slightly ahead of our annual budget and comparable to the prior year.

Our Board Designated Reserve was up for the year by \$0.3M plus \$0.2M contributed to Capital Funds. The Finance Committee continues to oversee our investment portfolio, and they have continued to monitor the funds that are ESG, and more mission based. 🌲



**Great Swamp Watershed Assoc**

# *Gala & Silent C*

**Thursday, October 24, 2**

**Brooklake Country Club, Florh**

**This year, we honor the environment with our th  
Dive into lively discussions while enjoying a goul  
environmental-focused expert eager to share the  
diners. With over 40 experts in attendance, this i  
individuals and make a difference.**



**5:30 PM VIP Reception | 6 PM Cocktail recep**

**For Tickets, Wine Packages, Advertising, Underw**

**A Green Gathering experts, visit Gr**



Association's annual

# Auction

2024

Swamp Park, NJ



Theme *A Green Gathering.*

Barbecue dinner. Each table will host an

and share their passion and converse with their fellow

It's your chance to connect with like-minded

Registration | 7:30 PM Dinner & A Green Gathering

Registration, & Silent Auction Information, and a list of

visit [GreatSwamp.org](http://GreatSwamp.org) or scan the QR code.



# Climate Change, Weather, and the Passaic River

By Sandra LaVigne, Director of Water Quality Programs

Great Swamp Watershed Association (GSWA) has recently been involved in a series of teacher development workshops focused on Climate Change. As we prepared for these workshops, I began to look closer at the impacts climate change is having on the Passaic River Watershed. The Passaic River provides water resources in the form of drinking water to approximately two million people a year, and in a small way providing hydroelectric power via the plant at Great Falls in Paterson. The Passaic River also receives effluent from wastewater treatment plants along the river, the largest of these being the Passaic Valley Sewerage Commission. But what happens when the river is impacted by the effects of climate change? What are the potential impacts?

The first thing that came to my mind was the issue of flooding. Just in the month of August the Passaic River region saw two rain events that locally produced over four inches of rain (CoCoRaHS). The discharge amounts, or volume of water through a given area, measured by the USGS water gauges in Pine Brook and Little Falls, show the rapid increase in water volume over the course of those storms (see Fig 1). Areas like Wayne, Paterson, and Newark saw days of flooding. Even GSWA's own Conservation Management Area saw boardwalks moved from the velocity and force of the flooding. Our blue trail bridge over the Silver Brook was lifted right off

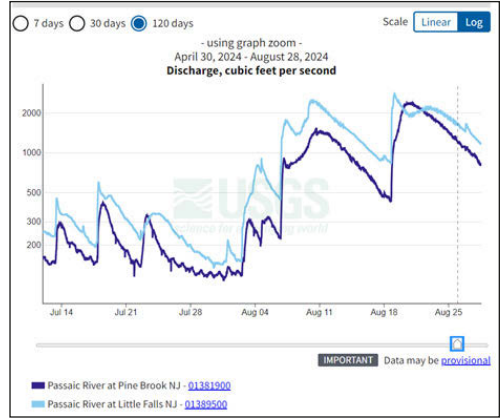


Figure 1: USGS Rain gauge data from Pine Brook and Little Falls - July through Aug

the iron struts that support it, meaning that the water level was up in the Silver Brook at least 3+ feet in a 24 hour period (Fig 2). These storms are part of a larger issue that we are seeing in the region. Total rainfall for August 2024 (as of the writing of this article) is recorded at 12.48 inches. Last year, 2023, August had a total of 5.14" with the 30 year average for August being 4.57 inches. With more frequent and intense storms separated by longer drier periods, the initial flush of water moves faster across the landscape. This can increase the damage caused by severe storms as the velocity of the runoff is not offset by infiltration of water into the ground. Think about it in terms of pouring water over a completely dried out sponge, at first the water just quickly runs off. That's what is happening with these weather patterns, but with a difference of almost eight inches

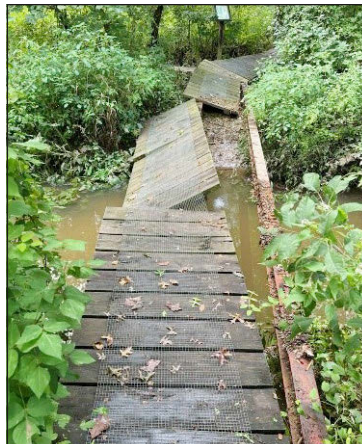
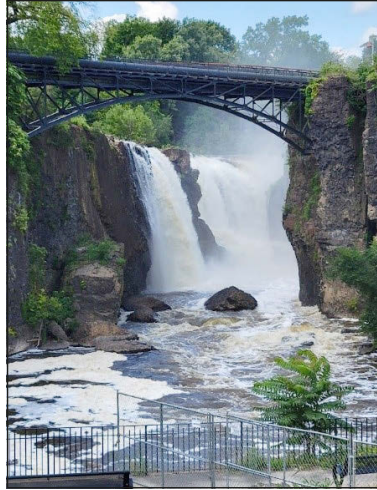


Figure 2: Silver Brook Bridge following August 18th storm event - Photo by Steve Gruber

(7.91 inches) above average rainfall the impacts are devastating.

With these high intensity weather events, combined sewer overflow systems like the one in Paterson, can be forced to divert sewage mixed with stormwater runoff directly into the river to prevent the whole system from being flooded and shut down. The impacts of this can be far reaching as flooded homes and businesses downstream of the outfalls receive contaminated water. The wastewater treatment plants in the region are working towards solutions for these issues to help keep communities safer. Passaic Valley Sewerage Commission in Newark has expanded their systems to handle larger volume and they have installed on-site backup generators to help ensure that the plant will continue to run and provide services even when the power goes out during a large storm event.

But what are some of the other long-term issues that could be caused by climate change? What about power supply? The hydroelectric plant located in Paterson at the Great Falls still provides electric power to the city. However, longer periods of drought could impact the efficacy of that power source. Just as river flow is impacted by precipitation amounts it is also impacted by drought. The Passaic River, like many other river systems, depends on precipitation for a large portion of its total



*Paterson Great Falls on August 22nd.  
Four days after the rain event*

volume. Long periods of drought could begin to have an impact on the river as a source of drinking water as well as a minor power source. The drought, however, is only half the equation, evapotranspiration can account for the loss of over 26 inches of water yearly in an average year in some areas of the Passaic (NJDEP). If we begin to experience longer hot, dry periods of weather, the amount of evapo-

transpiration will also increase exacerbating the conditions of drought. Long term this could begin to impact the amount of water resources available to the communities that depend on them.

But there is hope. There are things we can all do to help offset the impacts of climate on both a local and a larger scale. Our teachers

are working hard to incorporate the concepts of climate change and what solutions are available to their students. Teaching the next generation how to be better stewards of the river and the planet. GSWA works every day to improve water quality and offset the impacts of climate change. Most notably, our restoration of the flood plain forest at the



*A rain garden in my backyard*

CMA helps to offset flooding downstream. The improvements made during our restoration efforts in 2020 help to hold more water onsite during storm events; allowing the water to infiltrate upstream and move more slowly through the basin.

What can you do? *(continued on page 17)*

# Grinch-Proof Your Holiday Waste

By Val Thorpe, GSWA Director of Communications and Membership

It's September. Enjoy the calm while it lasts, because the holidays are right around the corner! With all the excitement of family gatherings, festive decorations, and gift-giving, it's easy to forget about the environmental impact of the holiday season.

As online shopping continues to grow in popularity, it's important to be mindful of the impact of shipping materials as well as gift-wrapping and increased meal preparation on the environment.

First rule of thumb - **when in doubt, throw it out!** Placing items in the recycle bin that don't belong can contaminate the entire batch, sending it all to the landfill. Otherwise, to help reduce waste and promote sustainability, here are some tips for proper disposal:

## Curbside Recycling (be sure everything is clean and dry, otherwise, toss in the trash)

- Paper padded mailer: **Do not recycle** those with air bubble padding
- Cardboard box: flatten and remove tape first
- Brown packing paper
- Wrapping paper: remove ribbon and bows. **Do not recycle** if laminated and/or contains non-paper additives such as gold or silver, glitter, plastics, etc.
- Grocery delivery packaging:
  - Insulated paper bags from Amazon are designed and have been tested to ensure they are recyclable in most curbside recycling programs.
  - Regular paper bags

- Paper envelopes from Amazon with insulation inside are recyclable in most curbside recycling programs. They can also be reused if clean and dry.
- Bottom board – found at the bottom of a bag or box to keep items cool
- Pizza boxes – tear off and discard any parts that are contaminated with food
- Additional paper products include junk mail, empty food boxes, newspapers, magazines, juice and milk cartons, cardboard egg cartons, and mixed paper

## Trash

- Bubble-lined paper mailer: recycle at designated store drop-off locations\*
- Plastic bags, bubble wrap, and air pillows: recycle at designated store drop-off locations\*
- Reusable gift bags: After repeated use, place in the garbage.
- Tissue paper: some facilities do accept tissue paper, but most do not
- Water and other beverage bottle lids – they can get into the gears and clot the machine
- Alkaline batteries such as AA, AAA and D batteries – Do not trash button batteries. They must be brought to a battery recycling bin at electronics and home improvement stores.
- LED light bulbs – these can usually be thrown in the regular trash. However, some may contain hazardous materials, so it's best to check with your local recycling program.



## \*Recycle at designated store drop-off locations

- Plastic film- often accepted at grocery and home improvement stores:
  - Plastic bubble wrap or packing peanuts
  - Produce bags
  - Bread bags
  - Plastic stretch wraps
  - Newspaper bags
  - Plastic mailers with compatible label
  - Wraps around paper products (paper towels, diapers, etc.)
  - Cereal bags
- Button batteries - often contain hazardous materials such as mercury, which can contaminate water and soil. Look for a battery recycling bin at electronics and home improvement stores or call **Call2Recycle** for drop-off locations.

**Note:** Always check with your local recycling program for specific guidelines as they may vary by location and collector.

By following these simple tips, you can reduce your waste and contribute to a healthier planet, all while enjoying the magic of the holiday season.

## Additional ways to reduce your carbon footprint:

- Offer experiences vs. physical gifts
- Save gift bags, ribbon, and bows to use again next year
- Use fabric and string to wrap and use year over year
- Choose not to wrap
- Compost food scraps and biodegradable packaging.
- Look for electronic recycling programs in your area to dispose of electronics vs. putting in regular trash.
- **Attend GSWA's Zoom Webinar: Calculate Your Eco Footprint, November 19 at 7:00 - 8:30 pm (see full writeup under events).**

## Recycling links

- [how2recycle.info](http://how2recycle.info)
- [nj.gov/dep/dshw/recycling](http://nj.gov/dep/dshw/recycling)
- [earth911.com](http://earth911.com)
- [mcmua.com](http://mcmua.com)
- Search for your own municipality for your specific recycling guidelines 🌿

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## Climate Change, Weather, and the Passaic River

*(continued from page 15)*

Landscaping can make a big difference, especially if you live near the water but even if you don't. Raingardens can help to hold water on your property allowing it to infiltrate slowly into the soil. Planting trees or keeping trees on your property also helps. In the broadest sense, trees combat climate change by sequestering carbon dioxide. But more immediately, they offer shade and reduce temperatures. GSWA had the teachers

at our workshop measure the temperature of the ground under a tree and nearby out in the sun. The temperatures measured under the trees were as much as 31 degrees lower than in the sun. Trees have amazing, deep root systems that can soak up over ten thousand gallons of water a year, further offsetting issues caused by rain events. Every garden and tree makes a difference in protecting our river against the impacts of climate change. 🌿

# Brenda Curnin, Advisory Council

By Wade Kirby, Director of Development

**B**renda and her husband Thomas Curnin have been consistent generous supporters of the Great Swamp Watershed Association since 1999. When they first moved to Basking Ridge, the town council was run by realtors, all of whom were pro-development. Right after they moved in, there was a project proposed in her backyard consisting of 32 houses to be built on wooded wetlands. Brenda hired an environmental lawyer to analyze the wetlands delineation. She sued the Department of Environmental Protection and won! They reduced the housing development to 12 houses and 180 acres of wetlands were saved, as the town ended up buying the property. Brenda had a strong alliance with Ella Fillapone, head of the Passaic River Coalition. She worked with them as a trustee and assisted with Passaic River clean-ups. It was during this time that Brenda was introduced to GSWA.

As the managing partner of Bernardsville Centre, Brenda was involved with an addition and renovation project from 2011 through 2019. The first phase of the project involved fixing a runoff pipe from Route 202, which had formed a huge ditch on their property. The drainage area, sanitary sewer, and

riparian buffer were all repaired so that sediment could not go downstream. The GSWA was very helpful in all this work on the Penns Brook tributary.

Brenda's whole experience in Basking Ridge grew out of her belief in the necessity for clean water, as much of the area collects water in giant wells. Also, the headwaters of the Passaic are on the property of The Olde Mill Inn. GSWA was founded sometime after the battle to defeat the jetport, which took place over a decade. Close to 8,000 acres were preserved in perpetuity through the legendary defeat of the Port Authority of New York's intention to acquire the land and turn it into a jetport. Many citizens in the surrounding area came together in a grassroots movement to preserve what the Department of the Interior has now termed the Great Swamp National Wildlife Refuge.

We are most grateful for Brenda and Thomas's generous support over many years and their strong belief in the work of GSWA. Brenda adds, "a lot of states don't have these watchdogs. We are lucky in New Jersey to have wonderful environmental groups that keep our drinking water safe." 🌱

## 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](mailto:srubin@greatswamp.org).

## Karlito Almeda, Advisory Council

*By Wade Kirby, Director of Development*

**K**arlito Almeda has recently joined the Great Swamp Watershed Association's Advisory Council. He majored in history at Ramapo College in Mahwah, New Jersey. While there, Karlito took a particular interest in how historical context can be applied to modern day issues, and how he could make an impact. In his hometown of Mahwah, a friend founded a local environmental non-profit organization called MEVO with which Karlito was a volunteer. It began with kids picking up trash on hiking trails and has since grown into more – adding a farm that produces food for those in need. MEVO developed Karlito's passion for community engagement and advocacy as well as conservation and environmental preservation. It was a foundational experience that set him off on a path for public service in order to help others have a say in their future. Karlito is married and has a one-year old son and wonders what the climate future will look like. He is currently a government affairs and public policy professional who has been engaged in advocacy for a decade. Karlito's employer based in Trenton is The Zita Group, one of the top five government and public affairs lobbying firms in New Jersey.

Karlito found GSWA through board member Kate Barry who he met at a state conference and liked her shoes! They had similar interests and became friends. After he moved to Morris County from Bergen Coun-

ty, Kate made the introduction to GSWA as Karlito was without roots and anxious to become involved in his new community. Given his background in environmentalism, GSWA was a great fit. At the time he moved, Karlito was working for a Clean Energy Association focused on advocating for policies leading to 100% clean electricity. He wanted to become familiar with the area and Kate helped him.

Karlito is happy to be associated with an organization that has such a rich, organizational and individual history. He recognizes the advantages of connecting people, educating and organizing as a vehicle for positive change. He believes in engagement within the community to proselytize others to become environmental stewards. With his family this becomes increasingly important. We must defend our society against the devastating impacts of climate change. Open land must be preserved to prevent flooding, maintain clean drinking water, and protect our environment. Karlito recognizes that inclement weather is becoming more frequent, and floods occur more often without "thoughtful" development. He says that GSWA made the world bigger for him, and the Mission is a personal cause that he supports. As he learns more about the people and the organization he is very encouraged for the future and wants to become more and more involved. GSWA radiates a welcoming spirit and he wants to engage others as well. *Welcome Karlito!* 🌲

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 [srubin@GreatSwamp.org](mailto:srubin@GreatSwamp.org) so you don't miss out on our e-newsletters.

# A Donor Story: The Legacy of the David and Carol Lackland Family Foundation

By Nancy Rago, Membership and Social Media Manager

As the Membership Manager for the Great Swamp Watershed Association (GSWA), I have the privilege of overseeing our constituent database and donor communications. One of the joys of my role is getting to know our supporters, both large and small, and witnessing the flourishing of these relationships. I felt compelled to share the inspiring story of the David and Carol Lackland Family Foundation, a philanthropic organization that has made a profound impact on many in our community, including GSWA.

## About David and Carol Lackland

David Lackland, a successful entrepreneur, and Carol Lackland, a devoted community advocate, always believed in giving back to society. Their philanthropic journey began with modest local donations but soon expanded to include major contributions to institutions and organizations aligned with their values. As founders of the David and Carol Lackland Family Foundation, the Lacklands were known for their generosity and deep commitment to causes like education, healthcare, and the environment.

David A. Lackland, along with his twin brother Fred, started Lackland Bros. Inc. in Dunellen, NJ. Over the years, they built and sold over 2,000 homes, constructed numerous industrial buildings, and were pioneers in the self-storage business in New Jersey, operating over 30 facilities. Both brothers, who were Eagle Scouts, were honored by the Boy Scouts of America during the 100th Anniversary of the Eagle Scouts.

Carol Burgess Lackland attended Cente-

nary College in Hackettstown, NJ, on a music scholarship. She began piano lessons at just three-and-a-half years old and performed as a concert pianist at prestigious venues, including NYC's Town Hall in 1954. Carol was instrumental in funding, designing, and building Centenary's David and Carol Lackland Center, designated the most sophisticated performing arts venue in northwest New Jersey and a focal point of the University.



David and Carol Lackland, shown at the Cornerstone Ceremony. From the Independent Press article "David and Carol Lackland of Watchung provide gift for Centenary performing arts center," published on August 11, 2010. The article details their donation. (Photo by Karen DeVita)



Driven by a strong desire to “give back,” David and Carol founded the Lackland Family Foundation to ensure their philanthropic passion would endure. David passed away in 2015, followed by Carol in 2017, but their children, David and Jennifer, continued the legacy with the compassion their parents instilled in them.

### **An In-Memoriam Tribute to Jennifer Lackland**

Jennifer Lee Lackland, the daughter of David and Carol, took over her father’s business when he was no longer able to manage it. She played a key role in the foundation, supporting various charitable endeavors dear to her and her family.

Jennifer’s untimely passing in 2022 deeply affected the Lackland family and the wider community. Jennifer had an immense love for the wilderness and the outdoors, and her work with the foundation reflected her passionate and compassionate spirit. The initiatives she championed—youth development, mental health awareness, and support for individuals facing hardships—remain her enduring legacy, continuing to positively impact the lives of many.

Jennifer Lackland stands out as a poignant reminder of how philanthropy can honor and preserve the memory of loved ones, creating a lasting impact that transcends generations.

### **GSWA: A Proud Lackland Foundation Recipient**

Jennifer had a focus on environmental responsibility. She was introduced to GSWA’s mission by a board member in 2012 and attended her first Gala Celebration that year.



Over the following years, we built a strong relationship as Jennifer believed in our vision and being the Waterkeeper Alliance Affiliate for the Passaic River. “Jen made me cry on more than one occasion with her generosity. She was down to earth and understood the transformational nature of philanthropy. I miss her,” said Sally Rubin, GSWA’s Executive Director. GSWA is immensely grateful for the annual support from the Lackland Family Foundation, including the recent major gift that jump-started the acquisition of our future permanent home at the Ferber Farm property located in Green Village.

The Lacklands’ philanthropic journey is a shining example of how generosity can create a ripple effect, inspiring others to follow in their footsteps. As someone who has observed the meaningful impact of their giving, I am deeply moved and motivated by their legacy. It is my sincere hope that by sharing their story and embodying their principles, future generations will be inspired to become givers. The world needs more people who are willing to give selflessly, and the Lacklands have shown us that such generosity is both possible and deeply impactful.

The GSWA Development team is always eager to connect with foundations that might support our mission. If you have connections with any foundation—whether family, corporate, or charitable—please consider facilitating an introduction. Share the foundation’s name and contact information with me at [nrago@greatswamp.org](mailto:nrago@greatswamp.org). Even if you’re unsure about alignment, your referral could foster a valuable relationship. Your support is greatly appreciated as we work to achieve our mission. Thank you in advance! 🌲

# Another Summer, Another Boardwalk!

By Ginger VanRyzin, Manager of Stewardship and GIS Specialist

For GSWA, like many environmental nonprofits, stewarding our 73 acres of protected open space is no easy feat. Our Conservation Management Area (CMA), located off Tiger Lily Lane in Harding, requires constant maintenance to keep the trails safe and accessible to the public, and we rely on our dedicated group of volunteers

it for the native wildlife, as it once did. In turn, our property began holding on to more water, and with the increasingly detrimental storm events driven by climate change, parts of our trails have been flooding more regularly and cause boardwalks such as this one to deteriorate much more quickly. Currently we are replacing the 300 feet of waterlogged boardwalks with a new, raised boardwalk that is accessible even when the water levels are higher than usual. We are very grateful for our numerous corporate partners who helped fund this project through community teamwork days, including Goldman Sachs, Teva and more.



A green frog caught a dragonfly next to the new boardwalk

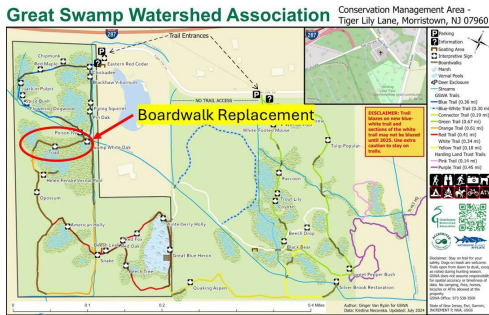
to help out with tasks including replacing old boardwalks, trimming the overgrown vegetation away from our three miles of trails, maintaining our 1.5 miles of deer fencing and so much more. This year alone, we have hosted nearly two dozen stewardship days with over 300 people coming out to volunteer.



Our primary project this year is replacing an old boardwalk that is over ten years old on the orange trail that leads out to the Helen Fenske Pond. In 2020, we restored the CMA to function as a floodplain forest, slowing stormwater and providing wetland hab-

All in all, with the help of our community, we have mulched over 2,000 ft of trails, constructed 300 feet of boardwalk (and removed 250 feet of old boardwalk!), and removed invasive species from the area since this spring. With everyone's hard work, the CMA is in great shape for our busy fall season ahead, where nearly 2,000 students will visit and learn from our CMA, as well as our many hikers and naturalists who come enjoy the CMA throughout the year.

Once again, thank you to all who volunteered at the CMA this season! If you or someone you know would like to know more about volunteering with GSWA, reach out to [gvanryzin@greatswamp.org](mailto:gvanryzin@greatswamp.org).



## Potential New Headquarters for GSWA in Green Village

(continued from page 1)



*Pond and open space on Ferber property, enabling outdoor programming onsite.*

- ✓ The renovation of the onsite barn and the increased parking will enable us to serve more people across our region and the ability to provide programming to seniors and those with special needs.

Acquisition contingencies: Several things must occur for GSWA to move forward with the acquisition of this property. There are two specific issues which must be addressed. *We are confident that these contingencies can be met.*

1. PSE&G requires approval from the Board of Public Utilities (BPU) to convey the property to GSWA.
2. GSWA must obtain approval from Chatham Township, where the property is located, as well as Harding Township, where part of the driveway is located, to convert the property from residential use to institutional use.

### Barn Renovation

Upon acquisition, the property will need a new well and septic system and will then

be usable for GSWA offices. We will need to raise money for the new well and septic system. The renovation of the barn will enhance and expand our abilities to continue to protect and improve the Great Swamp and Passaic River watershed.

After closing, it is our intent to launch a capital campaign to fund the barn renovation. A refurbished barn gives GSWA the opportunity to enhance our programming and provide event meeting space.

The barn will need significant renovations and will require handicap accessible bathrooms and an elevator to provide appropriate space to serve all populations, including special needs and elderly visitors. The barn will ultimately provide meeting space



*Barn offers even more space, but will need significant renovations before it is usable.*

for adult programs and interior space for school programs in inclement weather.

We are thrilled to begin this new chapter and look forward to your partnership in our organization's future. 🌲

## 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](http://GreatSwamp.org) for more information.



## Great Swamp Watershed Association

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### **MISSION:**

The Great Swamp Watershed Association protects and improves the health of the Passaic River through science, education, land preservation and stewardship, and advocacy.