



**Great Swamp Watershed Association**

The Passaic River **WATERKEEPER®** ALLIANCE Affiliate



# Across the Watershed

**Spring-Summer 2022**



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

## Take the GSWA “Source to Sea” Challenge

*By Kate Barry, GSWA Trustee*

**D**uring the pandemic, I became involved in virtual runs, which are races you can participate in from any location, at your own pace, inside or outside. They can be completed at any time either by oneself or with others.

I had always been a self-directed runner, but something about supporting a cause I believed in and forcing myself to hit a target was particularly moving and motivating during a time of such profound uncertainty and isolation. It was easy to see how something like this could be a perfect event for the GSWA to offer. So here it is, a 65-day, virtual challenge to run/walk/bike/roll 80 miles, the length of the Passaic River, that you can participate in from ANYWHERE in the world! It is appropriate for all fitness levels and at every 10-mile marker, you will learn an interesting fact about the Passaic River ecology, wildlife, or GSWA.

GSWA works to preserve and protect the Passaic River from its source in Mendham to where it meets the sea at Newark Bay. A large part of that involves public education and engaging the surrounding communities.

Though there are not trails along the entire 80 miles of the Passaic River, the virtual aspect of this endeavor allows people to participate wherever they are in the world, while learning about the importance of this wonderful resource. Participants are encouraged to go at their own pace and all ability levels are welcome.

*(continued on page 37)*



# From the Desk of the Executive Director

by Sally Rubin, Executive Director

Sometimes I have no idea what to write for these articles. And sometimes, something like this comes across my desk and I know why I love my job. I am inspired by young people and hopeful that they will find creative solutions to our challenges. Keep up the good work Elizabeth! 🌱

January 4, 2022

Sally Rubin  
Great Swamp Watershed Association  
P.O. Box 300  
New Vernon, NJ 07976

Dear Mrs. Rubin

Hi my name is Elizabeth [REDACTED]. I am a ninth grader that attends [REDACTED] High School. Lately in one of my classes I had to research a charity of my choice and try to convince the class to donate to the charity I chose. For the assignment, I chose to introduce the class to watersheds and water pollution. I chose your charity because against all the other charities I was choosing between your allocated money correctly you seemed to be ranked 4/4 stars with 100% transparency. I love how many people and the water you have affected through this charity. And I appreciate how active you have been to reach out and spread the word because I remember you guys coming to my 8th grade class last year.

Through researching water pollution I was shocked to learn how much pollution is happening and how many marine animals are dying from all the pollution. My eyes opened on how much pollution was really going on throughout all the countries in the world on a daily basis. It just keeps on getting more and more polluted by the second and more marine animals are dying and more clean waters are getting ruined. Your action against pollution amazed me and made me see how much you guys help keep the waters clean and I do thank you so much for that.

Although my charity was not chosen for the donation, I do definitely think that it is important for everyone that I know to know and learn more about your guys' charity by battling pollution using watersheds. Since I was so amazed with how well you guys do, I will definitely be checking back up on your website very often to see what new strides and improvements you have made.

Sincerely,



Elizabeth [REDACTED]  
[REDACTED] HS, Student

# Across the Watershed

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

GSWA is a member-supported non-profit organization that has been protecting the waters and the land of the Great Swamp Watershed for more than 40 years.

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## GSWA Presents The Passaic: One River One Community

Video debut - Introducing our new, 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](http://GreatSwamp.org/OneRiverVideo)

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## Upcoming Programs and Events

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.

### **Native Pollinators - What's the Buzz?**

**Tuesday, February 22, 7-8 PM**

*Free Zoom Webinar*

Your yard, whatever size, can provide essential habitat for valuable pollinators such as butterflies, bees, and other beneficial insects. Join us for a closer look at our native pollinators and the important roles they play in our gardens and in supporting healthy ecosystems. More than 75% of all flowering plants and your garden veggies need pollinators to reproduce! Knowing about gardening for pollinators from the insects' perspective will enable you to truly welcome them to your yard. Our host, all round cool bug guy, Dr. Stephen Mason, is an entomologist and faculty at Immaculata University, and a research associate at Philadelphia Academy of Natural Sciences. He will shed some light on insect life histories to make your yard a hive of activity this summer. *This is the second of GSWA's free, three-part native pollinator plant webinar series in preparation for our Native Plants for Pollinators Sale taking place online April 1-22.* Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **Virtual Pub Quiz**

**Sunday, February 27, 2-3 PM**

*Virtual on Zoom*

Ready to challenge yourself and others in a fast-paced thinking game? Zoom in for GSWA's popular Virtual Pub Quiz! Play alone or work together as a household team. Select one person to enter the answers to

these multiple-choice questions into your smart device. Play for prizes and bragging rights! If you are playing as a household, simply select one person's name to enter at registration. Then start brushing up on your water quality and enviro facts. Whether you plan to play alone or as a household, the registration fee is \$10/household. (Note: you cannot register as a team with other households.) Sign up today to play along, have some fun, and compete for some cool prizes! Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **DIY Workshop:**

**Ditch the Plastic & Chemicals**

**Wednesday, March 2, 6-8 PM**

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

Let's change behaviors – Wondering how to kick the plastic wrap habit in the kitchen, we've got solutions. And speaking of solutions, have you ever pondered what the harsh chemicals in your household cleansers are doing to your family and the environment? Let us help you get your home a little eco-friendlier with 3 do-it-yourself projects: a surface cleaner made from household ingredients, 3 reusable beeswax food storage covers, and 3 reusable produce shopping bags. Take it all home along with simple how-to instructions to make more, all for \$30. They also make great gifts. This workshop is limited to the first 20 people to register so sign up today! Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.



## **Test the Tap – What’s in Your Water? Begins week of March 7**

### *Mark Your Calendar*

GSWA’s Test the Tap Program is back. Beginning the second week of March, “test the tap” kits will be available for pickup at various locations including Summit and GSWA Headquarters in Morristown (final locations TBA). The water sample collection and drop-off must take place on the same day at the end of March (date and location TBA). Basic testing packaging is available for public and well water households with specific tests designed to help you feel comfortable taking back the tap and reducing the use of single use bottled water. GSWA works with a local NJ State Certified lab to help you get your tap water tested at nearly half the normal cost. Visit [GreatSwamp.org/events](http://GreatSwamp.org/events) for specific details coming soon.

## **GSWA Virtual “Source to Sea” 80-mile Challenge Begins Saturday, March 12 Ends Sunday, May 15**

*Fee: \$35 registration (includes t-shirt)*

Ready for a virtual challenge? Here we go! Register to run/walk/bike/roll 80 miles, the length of the Passaic River, from anywhere in the world. You will have 65 days to complete this challenge at your own pace. It’s easier than you may think. For example, doing an activity every day of the challenge equates to ~1.2 miles per day for 65 days - piece of crumb cake! (Which you will have earned with your daily activity.) Every 10 miles you achieve, you will learn interesting facts about your “current location” and the importance of this wonderful resource, the Passaic River. This event is open to anyone at any fitness level, using anything powered by you!

All who complete the challenge within 65 days will receive a complimentary ticket to GSWA’s 5th Annual Great Swamp Great Music Festival (a \$25 value) taking place on Sunday, May 22 in Chatham Twp., NJ. More information and registration link: [GreatSwamp.org/events](http://GreatSwamp.org/events).

## **Signs of Spring Hike @ the Refuge Sunday, March 13, 10 AM-12 Noon**

*Great Swamp National Wildlife Refuge -  
Orange Trail, Harding Twp., NJ*

Step outside for a relaxing, family-friendly, guided tour of the Great Swamp National Wildlife Refuge Orange Trail. Enjoy a Spring preview in the great outdoors - the red-winged blackbirds and eastern phoebes are the first to get the memo that it’s time to return and start nesting, while woodpeckers and spring peepers make their presence known more by sound than by sight. Some of our forest critters will also be scampering about. We will catch witch hazel in bloom, skunk cabbage beginning to emerge, and depending on our winter, the pussy willow may be bursting its buds. Additionally, non-native plants like crocuses and snowdrops will be starting to bloom. These are all indicators that Spring is on the way. This trail can get super wet/muddy, so muck boots/wellies are recommended. The full hike will be under two miles. GSWA members: Free, non-members: Suggested donation \$10 for adults, \$5 for children ages 6-17. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

## **Vernal Pool Exploration Hike Friday, March 25, 7-9 PM**

*GSWA’s Conservation Management Area  
(CMA), 91 Tiger Lily Ln., Harding Twp, 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 puddles, 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-members: \$10 for adults, \$5 for children ages 6-17. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **GSWA Native Pollinator Plant Sale Overview Webinar Friday, April 1, 12-1 PM**

#### *Free Zoom Webinar*

This is no April Fool's joke - GSWA's online Native Pollinator Plant Store is now open! Join Hazel England, GSWA Director of Education, Outreach, and Land Stewardship (and our resident pollinator expert) on Zoom for an overview of available plants and plant kits, and how to place your order. Learn about the types of plants you will need to attract pollinators and discover why this type of garden benefits your yard, your neighborhood, and our shared watershed. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **Native Pollinator Plant Sale Order Online: April 1-22**

*Pickup: April 30 & May 1*

GSWA and its many Community Partners will host our 2nd Annual Plants for Pollina-

tors online sale with convenient order pickup at multiple local sites. Order online April 1-22 and pickup your plants the weekend of April 30. 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](mailto:PlantSale@GreatSwamp.org) for more information.

### **Stream Assessment Training - Free Saturday, April 2, 9 AM-2 PM**

*Location TBA*

Interested in the health of your local stream? Concerned about clean water? Perhaps you've even considered becoming a stream monitoring volunteer. If any this makes you raise an eyebrow, this free training session is for you! An indoor classroom session, led by Sandra LaVigne, GSWA Director of Water Quality Programs, teaches you how to conduct visual and biological stream assessments, identify macroinvertebrates, and recognize environmental factors that could impact stream health. An outdoor session lets you practice your new-found skills at a local stream site. By afternoon you're fully trained in visual and biological stream assessment! This free training session is held in conjunction with the AmeriCorps New Jersey Watershed Ambassador Program. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **Glacial Signs Hike Sunday, April 10, 11 AM-2:30 PM**

*Pyramid Mountain Park, 472 Boonton Ave,  
Boonton, NJ*

Looking for a more challenging hike? Join us for a unique experience where we will hike

the path of a glacier and observe some unusual glacial erratics (stones and rocks that were transported by a glacier, sometimes hundreds of miles, and then left behind after the glacier melted). We will check out Tripod Rock, a 180-ton boulder balanced on three smaller boulders, and Bear Rock, one of NJ's largest glacial erratics, and other signs of the Wisconsin Glacier that retreated over 18,000 years ago. This is an intermediate hike with some rigorous conditions. Be sure to pack your binoculars, water, and snacks. GSWA members: Free, non-members: \$10 for adults, \$5 for children ages 6-17. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

**Water Quality Report Card  
Tuesday, April 12, 7-8 PM**

*Free Zoom Webinar*

How important is clean water? Join GSWA Director of Water Quality Programs, Sandra LaVigne, for an in-depth review of the water quality in the Great Swamp watershed and in the Passaic River region. This brief presentation will highlight the results of the sampling and testing we performed on our local streams throughout 2021. Sandra will also provide an overview of our testing protocol for PFAS (Perfluoroalkyl) manmade chemicals also called "forever chemicals." PFAS is a growing threat to waters. Join us for this informative report on your water with a Q&A session at the end.

**Community Volunteer Workdays  
(Two Dates)**

**Saturday, April 23, 9 AM-1 PM**

**Saturday, June 4, 9 AM-1 PM**

GSWA's Conservation Management Area (CMA), 91 Tiger Lily Ln., Harding Twp, NJ  
Come learn more about what stewarding our 73-acre property in Harding Twp. entails by getting involved hands on! We'll

be conducting a variety of tasks including chipping and mulching our trail network, removing invasive plants, and constructing new boardwalk. We rely on our volunteers to help us take care of this natural area that's open to the public for passive recreation and serves as an educational opportunity for students. Are you in the giving spirit and willing to brave the swamp? Wear long pants and long sleeves, and clothes that can get wet, muddy, and protect you from mosquitos! Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

**Springtime Twilight Hike  
Wednesday, May 4, 6-8 PM**

*Great Swamp National Wildlife Refuge -  
Bluebird Parking Lot, Harding Twp., NJ*

Revel in the lengthening evenings and enjoy a natural history hike to explore the excitement of spring. We will seek out blooming ephemeral wildflowers and early migrants visiting Great Swamp National Wildlife Refuge. We will supply binoculars and help you use them properly to see those tiny migratory birds flitting around the greening undergrowth. GSWA members: Free, non-members: Suggested donation \$10 for adults, \$5 for children ages 6-17. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

**Passaic River Natural History Paddle Day  
(2 Sessions)  
Saturday, May 14  
10 AM-12 Noon & 1-3 PM**

*Upper Passaic River (exact location TBA)*

With generous funding from the Thomas Glasser Foundation, we have purchased kayaks for use in our water quality and educational programming. Join us on our maiden voyages to learn more about current water quality issues and observe the natural history of the Passaic River in the best way possible -

from the river itself. We'll paddle the Passaic seeking 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 9 spots available per session - only 2 spots available 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. The put-in location will be in the upper reaches of the river. The specific location will be announced to registered participants after we check conditions. Life vests will be provided.* GSWA members: \$20, non-members: \$30. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **Explore GSWA's CMA Friday June 10, 6-8 PM**

GSWA's Conservation Management Area (CMA), 91 Tiger Lily Ln., Harding Twp, NJ We've been working hard since the big restoration at our 73-acre forested wetland site, creating boardwalk trails, and expanding wetland habitat. Enjoy a late spring hike in the beautiful spring weather to see which wildlife is making good use of these newly

improved conditions. Wear long pants and long sleeves, and clothes than can get wet, muddy, and protect you from mosquitos. GSWA members: Free, non-members: \$10 for adults, \$5 for children ages 6-17. Register at [GreatSwamp.org](http://GreatSwamp.org) or call 973-538-3500.

### **Stream Cleanups on the Passaic (in and around the water) Saturday, July 16**

*Times and locations TBA*

"City of Water Day" - a community initiative through the Waterfront Alliance and funded by NY/NJ Harbor Estuary Program and the Hudson River Foundation - takes place on July 16. GSWA will once again participate by conducting cleanups along the Passaic River. This river-wide initiative brings communities to the water to engage in river cleanups, paddling events, and more. GSWA will organize local stream cleanups along the Passaic River and our smaller tributaries. We will also organize short kayaking excursions at some of our cleanup locations. Check back at our events page, [GreatSwamp.org/events](http://GreatSwamp.org/events), for specifics as we get closer to the date. 🛶

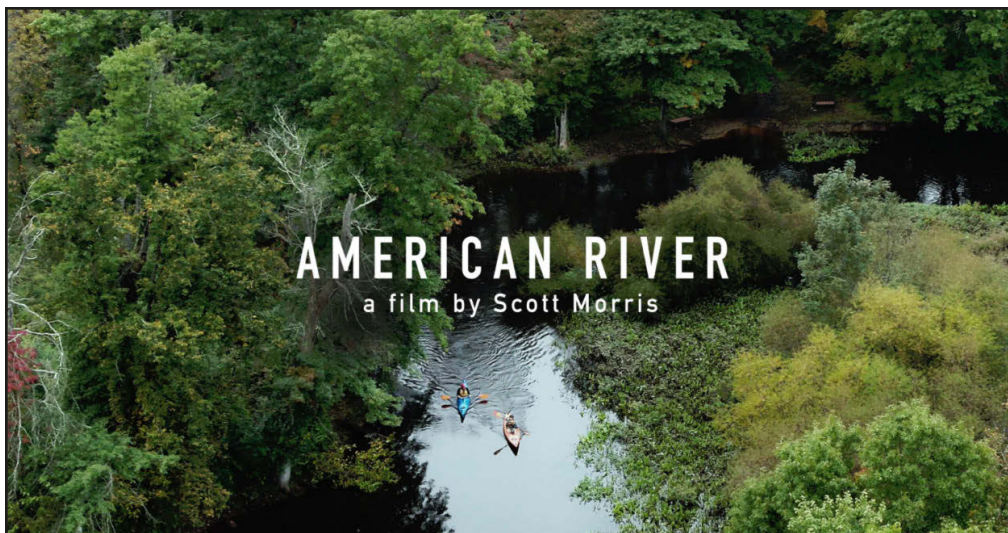
## **Know Someone Who Would Like to Become a Member?**

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.



# American River – a documentary film by Scott Morris

Mayo Performing Arts Center, Morristown  
Thursday, March 31<sup>st</sup> at 7:30pm



**Pay as you can - suggested price \$10**  
**Tickets available on the MayoPac website**  
**[mayoarts.org/shows/american-river](http://mayoarts.org/shows/american-river)**

**M**ary Bruno spent her childhood fearing the polluted stretch of the Passaic River near her home. Decades later, she returns to rediscover the river of her youth. *AMERICAN RIVER* is a cinematic adventure that follows Ms. Bruno and river guide Carl Alderson on a 4-day, 80-mile kayak journey from the Passaic's pristine headwaters to its toxic mouth in Newark Bay. Along the way, candid conversations with residents, experts and advocates reveal the Passaic's extraordinary history, geology, and ecology: How did this powerful and once-celebrated river become one of the most contaminated in America? Can it be saved? Live Q&A following the screening with Director Scott Morris and Restoration Ecologist Carl Alderson.

Mary Bruno author, aquatic ecologist, and a proud New Jersey native. Her 2012 book, *An American River*, (available on Amazon) is an environmental memoir about growing up along the polluted lower stretch of New Jersey's Passaic River. She is currently at work on a book about aquifers from her home on Vashon Island in Washington State.

Join the GSWA team for this special screening and learn more about our work to protect and preserve the Passaic River. Be sure to stop by our table in the lobby and enter to win an opportunity for a two-hour educational paddle along the Passaic OR receive ten pollinator plant plugs from our native plant sale to start your very own pollinator garden! You must be present to win. 🌿



# Board of Trustees and Advisory Council Updates

By Sally Rubin, Executive Director

**G**SWA thanks four trustees whose terms have ended. We bid a fond farewell to **Matt Krauser** and **Nic Platt**, both of whom have served as previous Board Chairs, providing strong leadership to the organization. We also said goodbye to **Teresa Lane** and **Dr. Christopher Obropta**. They have all been incredibly helpful and I am personally grateful for their time, energy, and guidance.

We welcomed **Ralph Jones** and **Carolyn Sharaway** this past fall and **David Robinson** joined the board in January.

Ralph is a retired insurance executive. Among other notable companies, he worked for Chubb Insurance. He is currently the President of the Mars Essex Horse Trials, an annual event taking place in Far Hills, NJ which benefits the Greater Newark Life Camp. Ralph and his wife, Lynn, live in Tewksbury and have many ties to the Great Swamp watershed. They are avid equestrians and supporters of a clean and healthy environment and the preservation of open space.

Carolyn's 16-year career in the nonprofit sector began in direct service to underserved populations and was the catalyst for her to pursue fundraising as a career. Carolyn earned a Bachelor of Science degree in Psychology from Stony Brook University and a master's degree in Nonprofit Management from Milano School of International Affairs, Management, and Urban Policy in New York City. She is a Certified Fundraising Execu-

tive (CFRE); has a certificate in Planned Giving authorized by University of California, Davis; and sits on the Marketing and Communications Committee for Philanthropic Planning Group of Greater New York. Carolyn lives in Bloomfield, NJ.

Dave is a distinguished professor at Rutgers University and the New Jersey State Climatologist. He conducts research that focuses on the diverse weather and climate of the Garden State. This includes topics such as climate change, drought, flooding, and issues involving agriculture, transportation, public safety, and commerce. His office provides timely information to decision makers, the research community, and the general public. Dave is a much sought-after speaker on the critical climate issues that affect every one of us today and threaten the health and safety of our future. He and his partner, Missy, live in Somerset, NJ.

We are pleased that the executive board members will remain in place for 2022. **Tony DellaPelle** will serve as Chairman of the Board of Trustees with **Debra Apruzzese** serving as Vice Chair and **Guy Piserchia** as Treasurer.



Carolyn Sharaway



Ralph Jones



David Robinson

## GSWA Advisory Council

Kathy Abbott  
Thelma Achenbach  
Astri Baillie  
Jose Barquin  
Len Berkowitz  
David Budd  
Brenda Curnin  
Andrew DeLaney  
Jay DeLaney, Jr.  
William Diehl, M.D.  
Russ Furnari  
Sally Glick  
Jeffrey Grayzel  
Claire Griffin Miller  
Pam Harding  
Jane Kendall  
Matthew Krauser  
Teresa Lane  
Cathy Lee  
John Neale  
Alan Pfeil  
Kathy Pfeil  
Nicolas Platt  
Adam Psichos  
Jon Rafalowski  
Frances Schultz  
Gerald Scully  
Julia Somers  
Frank Stillinger  
Katherine Stinson

## GSWA Board of Trustees

Debra Apruzzese, Vice Chair  
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Kate Barry  
Paul Boudreau  
Gerry-Jo Cranmer  
Marilyn Dee  
Michael Dee  
Anthony DellaPelle, Chairman  
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Carolyn Sharaway  
Lisa Stevens  
Dorothea Stillinger  
Kevin Sullivan  
Stacey Valentine  
Giorgios Vlamis  
Clark Wagner  
Brett Williamson

### Advisory Council updates

GSWA thanks **Chris Allyn, Peter Birnbaum, Susan Deeks, John Donofrio, Mary Horn, Drew Maldonado, and Jeff Webb** for their service on our Advisory Council.

We are pleased to welcome former board members **Matt Krauser, Teresa Lane, and Nic Platt** to the Advisory Council for 2022.

The Advisory Council assists the Great Swamp Watershed Association in achieving its goals and objectives consistent with GSWA's mission by serving as advocates for the organization and by providing expertise, professional contacts, and financial support. 🌿

# Make Way for Pollinators

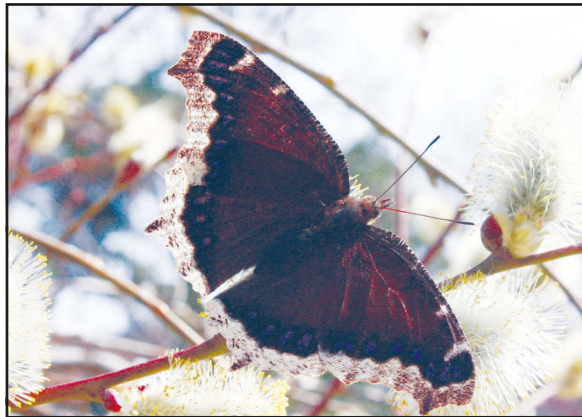
By Hazel England, Director of Education & Outreach, Land Steward

As we buzz around readying our inventory and resources for our second Plants for Pollinator sale coming this April, we're learning there is huge untapped demand from our local community to learn more about gardening effectively with native species, and the value they offer to local wildlife.

To bolster the success of the 'pollinator,' as well as the 'plant' piece of our program, we've added resources to build knowledge and interest ahead of the sale. Each month, webinars and a 'Make way for Pollinators' newsletter will offer deeper insights on specific aspects of gardening successfully with native species. Our January webinar, with Becky Laboy, shared how to have a Jersey Friendly Yard and use the great wildlife-friendly gar-

led by me, will pull together the **whys** of gardening for pollinators. We'll talk more about what the data tells us- including the famous research showing that to support a single pair of chickadees who must feed their young thousands of caterpillars, about 70% of your yard's trees, shrubs and plantings must be native species. We'll share the **benefits** of the plants sold at the sale and explain the various plant kits of complementary species for different garden conditions. With 22,000 plant plugs on sale, (50% more than last year's sell-out!), the scope for positive impact as new pollinator gardens pop up in hundreds of yards in communities around the watershed is truly heartening.

As homeowners become more educated about problems facing native wildlife and the need to take bold steps to address threats to New Jersey's dwindling biodiversity, they are perforce making watershed friendly living decisions for their yards. Native plants don't need additional fertilizer, which makes them grow too leggy and tall. Larval and flying insect pollinators are killed by injudicious pesticide application, and native species, with their deep, spreading roots, are much less thirsty than annuals or ornamentals. Gardening to attract pollinators is also gardening to reduce water quality impacts. Stephen Buchmann writes in his seminal book *The Forgotten Pollinators*: "Most North Americans lack any mental image for this "biological diversity" that scientists deem so important. Although this recently coined word has been splattered across headlines and in innumerable newspapers... poll after poll confirms that few Americans



*Mourning Cloak on Willow (Salix)*

den planning resources at the [jerseyyards.org](http://jerseyyards.org) site. February highlights the pollinator's perspective, with Dr. Stephen Mason, entomologist and all-around good bug guy, sharing his knowledge about insects, including their behavior and life cycles, which can help us support successful pollinator populations in our yards. Our final webinar, on April 1st,

*understand or care what ecologists and scientists mean by biodiversity. Few Americans know that pollen plays a role in plant reproduction, for most of them regarded it as a nuisance, an allergenic dust."*

The hundreds of purchasers of the 28 species of native perennials at our sale are endeavoring to both understand and care for local biodiversity and learn what must be done to support and bolster it in their own backyards.

The varied shapes, colors, growth habits and bloom times of native wildflowers attract different species of pollinators, which can access the same flowers in different ways. For example, the lavender, tube-like flowers of Anise hyssop (*Agastache foeniculum*), held aloft in tall spikes in high summer, dust pollen onto the head of large bumble bees from the flowers' male parts (anthers) which is then transferred to the female parts (pistil) of another flower as bees forage. Smaller solitary bees forage differently, and their abdomens get brushed with golden pollen as they feed. Bee mimics, (really flies if you can see through their masquerading behavior and coloring!), hover in front of the flowers, nectaring with long straw-like mouthparts without even touching the sexual parts of the flower. Fritillary butterflies unfurl their long party-blower-like proboscis deep into the mouth of the flower

to sip on nectar. So planting one native species supports many native pollinator species. Native plants have co-evolved with the pollinators and other beneficial insects that utilize them, so there are no bad plant choices, only personal preferences for site and condition! All the plants benefit a variety of pollinators, and each plant supports myriad native insects at the base of the food chain feeding larger insects, our beloved garden birds, and more.



*Bee visiting assorted native flowers*

This is not the case with the gaudy annuals sold by the case at large box stores. Often these annuals have been bred to have specific flower characteristics such as doubled petals or showy flowers, at the expense of the pollen and nectar that sustains insects. These

annuals often tease with bright colors, but don't provide the insect a reward. Pollinator insects also require native plants to lay their eggs, nourish their larva, and to provide a continuous sequence of blooms throughout their lives. Many annuals may even have been pre-treated with neonicotinoids, chemicals which repel insects from eating the plant and will cut short your idea of having airy butterflies dancing around your yard all summer. To make way for pollinators, we encourage you to visit the resources page of the GSWA website and collaborators' plant sale to begin choosing the plants you will want to add to your yards this spring! 🌱

The **Plants for Pollinators** sale is held in conjunction with more than 26 partner organizations and runs from April 1 - April 22, with plant pick up at more than a dozen sites around the region April 30/May 1. We anticipate selling out, so shop early! More information on the sale can be found at: [greatswamp.org/nativeplantsale](https://greatswamp.org/nativeplantsale)

# Five Ways to be an Advocate for Water Quality

By Nancy Rago, Membership and Social Media Manager

I wanted to explore the ways to advocate for clean water and the environment. While some ways are easier than others (like contacting elected officials verses volunteering for a workday), every single method is valuable, and every person can find something to champion. It does not matter what is done to advocate for change if **some** action is done to achieve change. I recently spotted a quote on Hazel England's email signature that sums this up perfectly.

*Never doubt that a small group of thoughtful, committed citizens can change the world: indeed, it's the only thing that ever has.*—Margaret Mead

Here are my ways to work advocacy into your everyday life.

## **#1: Educate yourself and your inner circle about water quality issues.**

Education is one of the most important ways to advocate for change. The easiest way to educate yourself and people in your inner circle is to get involved with the Great Swamp Watershed's events and programs. Check out the Event Calendar, in the top navigation of *GreatSwamp.org*, for the next hike or educational seminar. GSWA hike leaders always share interesting environmental information along the trail. Seminars and webinars are varied from how to kick the plastic habit in the kitchen to gardening information. Visit the "WATER QUALITY" tab at *GreatSwamp.org* to consider taking the 'Stream Assessment Training Self-Paced Guide' to increase your personal river knowledge and the various water quality health issues. GSWA offers free, in-person Stream Assessment Training sessions twice a year. This one-day session has both indoor classroom and outdoor training components. By after-

noon, you will be fully trained in visual and biological stream assessment with the ability to recognize the environmental factors that may impact stream health.

At the Great Swamp Watershed, we feel the best way to mobilize others to make a difference is to educate them about the problem. One educational tool we use is the EnviroScape, a three-dimensional, hands-on, interactive model of a watershed that demonstrates the sources and effects of water pollution. Our talk begins with a "real" water cycle but leads to discussions of what a watershed is, where our drinking water comes from, where our wastewater goes, point versus nonpoint source pollution, human impacts on local waterways, and best practices to reduce our impact on local waterways. In addition to being used in schools for Grades K through College, our knowledgeable staff often presents to garden clubs, scout groups, businesses, environmental commissions, and other civic organizations.

Education gives you the knowledge to discuss these topics as well as share opinions and maybe mobilize others to advocate for the water and environmental issues important to you.

## **#2: Contact and encourage an elected official to fight for environmental issues.**

Contacting local representatives is one of the most powerful ways to advocate for change but few people realize how profound of an impact either calling or writing to elected officials can have. It allows the elected official to know that an issue is important to their constituents. The result of this knowledge could be translated into actionable change regarding an environmental issue. Elected officials do not have an abundance of time to



deal with every issue that comes across their desk, so they generally will spend time working on issues important to the people who live in their district. Representatives assume the issues people in their district contact them with are the most important matters to their districts.

**#3: Volunteer to help with local clean-ups.**

Another way to gain knowledge is to volunteer at a Conservation Management Area (CMA) workday. This is a hands-on experience of like-minded people who are making a difference with their hard work. When you



take part in creating and maintaining trails at our CMA, you can make new friends while helping protect a local natural area that contains critical wetlands, freshwater marsh, vernal pools, forested areas, and the Silver Brook (a tributary to the Great Brook and Passaic River). If you are interested in getting actively involved and volunteering, email Hazel England, GSWA Director of Land Stewardship, at [hazele@greatswamp.org](mailto:hazele@greatswamp.org). Plus, GSWA has other clean-up areas and events throughout the year on an as-needed basis. Check the Events page on our website often.

**#4: Outreach to the larger community about environmental issues.**

Volunteers are the heart of the GSWA's Outreach Committees from helping at our

annual gala, to getting the word out about upcoming events, to assisting with making other outreach programs successful. From stream sampling to writing blog posts, volunteers help GSWA reach the larger community with the many programs associated with Great Swamp Watershed Association. Contact me at [nrago@greatswamp.org](mailto:nrago@greatswamp.org) to find the right task to fit your time and talents.

**#5: Organize a rally about an environmental problem.**

While this is more difficult than other advocacy examples, it is one of the most effective ways to advocate for change. Rallies

are a great way to raise visibility for conservation and environmental issues. One example close to our heart is the one that occurred in 1959. The Great Swamp was in the Port Authority of New York's plan to build a new Jet Port. The residents organized

and fought against this plan that would have leveled the Great Swamp. More than 1,500 Morris County residents rallied at Madison High School to begin the fight that was eventually won with the Great Swamp becoming a National Wildlife Refuge in 1964. We are thankful for these local heroes who saw the need protect this watershed and fought to change the course of the local environmental wonder!

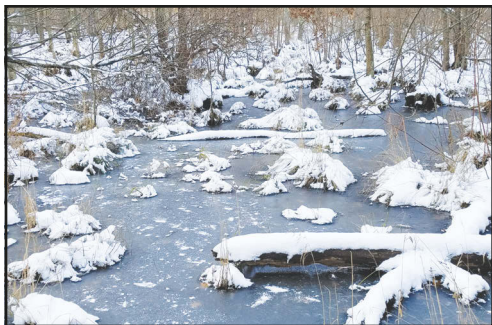
There are lots of ways to take action to protect the environment. The place to begin is to think about talking the talk and walking the walk. People who advocate for water quality issues are more likely to have good green behaviors and be more engaged to lead in successful change. 🌲

# Surviving in a Winter Waterland

Sandra LaVigne, Director of Water Quality Programs

Every year in the spring, GSWA collects aquatic macroinvertebrate samples to help us determine the health and water quality of our streams. The aquatic macroinvertebrates (macros) we find can range from aquatic insect larvae and aquatic insects to crayfish, freshwater muscles and more. These stream inhabitants can tell us a lot about the health of the system and potential pollution issues. But did you ever wonder how these tiny creatures survive the colder months of the year?

Macros use a range of different strategies to persist through the colder months and freezing temperatures. To start with, water



Silver Brook at the CMA

itself is a great insulator and moving water especially takes much longer to freeze over in the winter months. As you walk along your favorite stream in the winter, often even if the air temperature is below freezing you will still see that brook babbling along its merry way. That being said, the water is likely just a few degrees above freezing. Even when our local streams do freeze over, the ice that forms is usually only an inch or so thick and the water below it remains free flowing and above freezing temperature.

Next, we can look at the sediment along the bottom of the stream. Stream sediment

can be made up of a number of different substances including, organic matter like leaf litter and soil and inorganic matter like sand and gravel. This substrate works as a different type of insulation holding geothermal heat and offering even more insulation to the macros that spend the winter there.

Let's take a look at a few specific macros and see how they deal with the winter conditions. Dragonflies (Order – *Odonata*) are a



Dragonfly larva

common site along streams and in wetland areas in the spring and summer months. Mostly we think of the colorful flying insects that zip about all summer long, but most dragonflies spend the majority of their life cycle under the water as larvae. Dragonfly larvae can spend between one and five years in the water before emerging. Dragonfly larvae are top predators, and they don't let winter get in the way. Most species continue to swim and hunt throughout the winter months. One species of dragonfly, the green darner (*Anax junius*), uses a different strategy – they migrate! This particular dragonfly migrates between parts of Canada and the northeastern US to the Caribbean. Like the great monarch butterfly migration. This happens over three generations as shown in Figure 1.

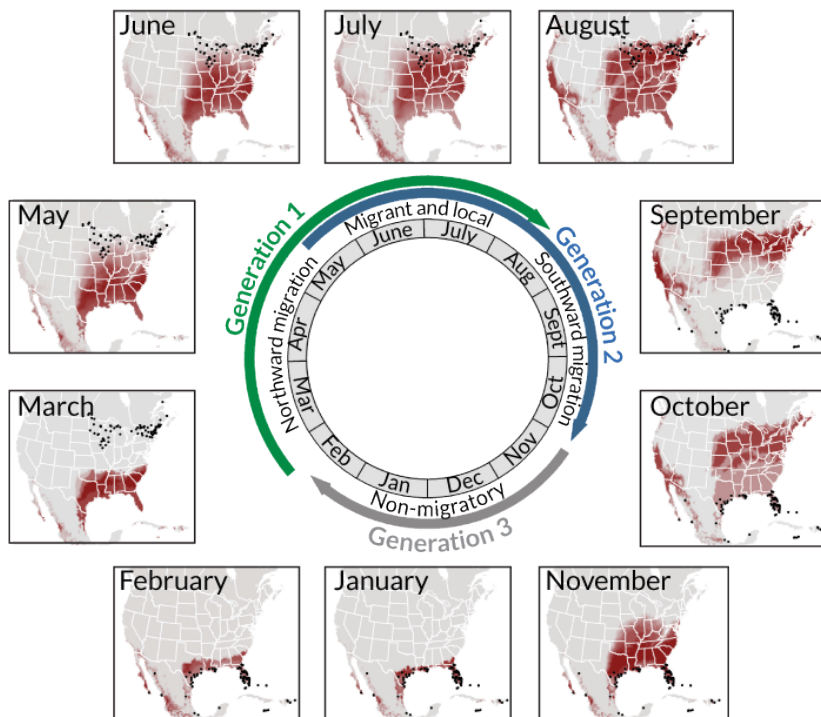


Figure 1: Monarch Migration, Matthew Dodder, M.T. Hallworth et al - Biology Letters 2018

Damselflies (Order – *Odonata*), on the other hand, have adapted to avoid the problem of winter all together. Damselflies only survive for one season, they emerge from the water in mid to late summer and lay their eggs before the winter cold sets in. The



Damselfly larva

The eggs, which are deposited in plant stems along the stream-banks, go through a diapause phase where they pause their growth until the conditions are just right in the spring. The plant stems help to protect and insulate the eggs until the



Damselfly

larvae are ready to hatch into the streams in early spring.

(continued on page 18)

## Surviving in a Winter Waterland (continued from page 17)

Stonefly larvae (Order – *Plecoptera*), like dragon flies, continue to grow and thrive in the cold winter waters. They are classified as freeze-avoiding insects and actively produce a type of anti-freeze by producing compounds. These compounds can be made up of glycerol, proteins and sugars and help to prevent freezing in the cold water temperatures.



Stonefly larva

Finally, we will look at the assortment of macros that burrow into the sediment to keep warm for the winter. Snails, like the gilled snails (sub-class – *Prosobranchia*), work their way into the soft sediment and streambanks where the temperatures do not usually go below freezing and enter into a state of hibernation. They slow their body functions down and use minimal energy to sleep through the winter emerging when

temperatures begin to warm back up in the spring. Aquatic worms, on the other hand, will curl up around themselves like a snake in the leaf litter or just below the surface of the sediment. They then produce a mucus coating that hardens up like the chrysalis of a butterfly, protecting them from both the cold and the attention of predators.

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All photos by Sandra LaVigne.

“Lower DuPage River Watershed Coalition.” *LDP Watersheds*, 20 Sept. 2020, <https://ldpwatersheds.org/about-us/lower-dupage-river-watershed-coalition/>.

Maxham, Scott. “Izaak Walton League of America.” *Izaak Walton League - National Conservation Organization*, <https://www.iwla.org/>.

Milius, Susan. “Green Darner Dragonflies Migrate a Bit like Monarch Butterflies.” *Science News*, 7 Jan. 2019, <https://www.sciencenews.org/>.

“Where Do Insects Go in the Winter?” *Smithsonian Institution*, Department of Systematic Biology, Entomology Section, National Museum of Natural History, May 1999, <https://www.si.edu>. 🌲

## 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 or virtual presentations that will educate and inspire members of your local club or group. Please contact Hazel England, Director of Education & Outreach at (973) 538-3500 or [hazele@greatswamp.org](mailto:hazele@greatswamp.org).



# Bayer Fund and Bristol Myers Squibb Support GSWA's Expanded STEM Environmental Education Programs

By Lynne Applebaum, Director of Institutional Relations

Education has been at the core of GSWA's mission for 40 years. It is imperative to educate the next generation on the importance of protecting their environment. STEM education has become more and more important in preparing young people for their lives and careers, no matter which path they choose. It encourages critical thinking skills and strategies that will help them long term in their careers and in their lives.

In addition to providing our excellent STEM environmental programs to suburban and underserved urban communities, GSWA is now offering our excellent STEM environmental education classes to the Boys & Girls Club of Paterson and Passaic (BGCPP), thanks to grants from Bayer Fund, a philanthropic arm of Bayer in the U.S., and Bristol Myers Squibb. GSWA has had an education presence across our watershed for years, and we are thrilled to be able to expand and include organizations that serve young people in such a positive way.

The mission of Boys & Girls Club of Paterson and Passaic (BGCPP) *is to enable all young people, especially those who need us most, to reach their full potential as productive, caring, responsible citizens.*


As stated by Wendy McGuire, Chief Executive Officer of BGCPP: "A partnership with GSWA for these programs will help us

achieve that, by focusing on three main components:

- Supporting and building upon STEM concepts learned during the school day
- Teaching the student participants to become more active in protecting the environment in their communities
- Learning more about options for STEM careers"

"Throughout the years, the grants given through Bayer Fund have helped strengthen our communities across the United States," said Al Mitchell, President of Bayer Fund. "We're proud to be able to provide support to develop programs that help combat challenges such as food insecurity, STEM (Science, Technology, Engineering and Math) education and support services to patients and families managing an illness or disease."

Like Bayer Fund, Bristol Myers Squibb has supported GSWA's environmental education programs and continues to be a champion for expanded STEM educational opportunities for all students in our watershed, especially in underserved urban communities.

The ability to grow these programs requires increased staff time and resources and strategic planning. Thanks to Bayer Fund and Bristol Myers Squibb, GSWA is ready for this new and exciting challenge. Programs are starting in February 2022 and will run through to December 31, 2022. 



# David Budd, Advisory Council


*By Wade Kirby, Director of Development*

**D**avid Budd has been a member of the Great Swamp Watershed Association since joining in July of 1986. Born and raised in Convent Station, he attended the Pingry School, Hobart College, and the Wharton School of Business where he obtained a Master's Degree in finance and accounting. He worked for many years in Manhattan reaching the position of Senior Vice President, Co-Head of Corporate Finance at Keefe, Bruyette & Woods, Inc. (KBW) a boutique investment firm. After 12 years at KBW, David left along with three other associates to found McConnell, Budd and Romano, Inc. in Morristown which was a smaller investment banking boutique modeled after KBW.

In 1986 David moved from Chatham Township to Harding Township where he was introduced to GSWA by his neighbor Mimi Pitney who was an active member. Interested in giving back to his community, David joined the Harding Township Civic Association, the Harding Township Environmental Commission and was eventually appointed to the Harding Township Planning Board on which he served for nine years.

While a member of GSWA David was fortunate to work together with a group of dedicated trustees, volunteers and staff to gradually place GSWA on a firm financial foundation. He served at various times as Treasurer, Vice- Chairman and three separate terms as Chairman of GSWA. Asked what GSWA's greatest success to date has been, David suggested most people would reply


that having a role in the defeat of the plan for a Continuing Care Retirement Community next to Delbarton School would be it. David disagrees however and suggests that the cumulative negative impact on the environment in New Jersey (and else where for that matter) is a result of one thousand tiny cuts represented by individually insignificant things like allowing one extra building lot in a development rather than dedicating a portion of the "buildable area" as Open Space. Another example would be allowing building too close to a body of water or a stream or on a steep slope. GSWA's greatest success has been the cumulative effect over time of its influence at countless Planning Board and Board of Adjustment meetings in the various separate communities, all or part of which fall in the Great Swamp Watershed. One might deem GSWA's contributions to the decisions made by those boards insignificant. Cumulatively though they have slowed the otherwise headlong pace of development and more importantly steered decision making in a direction more favorable to the environment over time.

GSWA has had as members, staff and volunteers thousands of dedicated individuals who have collectively made individually small but cumulatively powerful, positive contributions to water quality and land use practice in the area of GSWA's influence. This has been GSWA's greatest victory and David is proud to have played a small part in the process. 

# Sally Glick, Advisory Council

By Wade Kirby, Director of Development

**G**SWA is excited and pleased to have Sally Glick as a new member of our Advisory Council! Sally is a proud third generation city of Chicago resident, born and raised. She currently resides in Basking Ridge and is the Principal and Chief Growth Strategist/Ambassador for SobelCo, LLC. Her primary responsibility is to assist the firm in developing new business as well as retain existing clients by creating meaningful relationships in the non-profit and corporate business community. Sally's inspiration for helping people comes from her father for whom she worked for 20 years. He was always involved with a non-profit organization, and a member of the Chamber of Commerce. Sally first met GSWA Executive Director Sally Rubin at a non-profit event at which they developed an amazing friendship. She was so impressed with how Sally had focused her legal background on her passion and commitment to the environment. She "taught me so many lessons about what we have here." Maintaining clean water was Sally Glick's initial attraction to GSWA. She developed a recognition that cleanliness and a caring for our surroundings with the full expectation that the resources we have here will work for everyone. We must never take for granted heat and clean water to drink. Awareness of

the environmental health on which GSWA is focused is significant. Changing the way people behave can be difficult but connecting to those who will spread the word is vital. It is just so easy to throw away plastics that are clearly recyclable! Sally was particularly impressed with a "Clean-up Day" that was promoted by GSWA. She says it was so rewarding to see people coming back with big bags of trash. She implores people to remember that everything you throw away *must go somewhere*. Corporate profits stand in the way of this forward progress. Sally feels that GSWA's biggest achievement is convincing people from the top down to become aware and engaged and allow this to become contagious. Think about how your attitude can affect other people. ***Imagine one day when we would all have no water?*** Sally would encourage a new member of GSWA to consider what really matters: security, safety and physical well-being. Remember that a huge percentage of the body is water. Being alive is essentially related to having fresh water which enables us to do so many other things intellectually and creatively. There are so many wonderful organizations that need us, but first...we have to be alive! Many thanks to Sally for her insight and her meaningful contributions to our Advisory Council. 

## 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).

# GSWA 40<sup>th</sup> Anniversary Gala – A Successful Live Event!

*By Val Thorpe, Director of Communication and Membership*

With the retirement of our amazing office manager and gala coordinator, Debbie Rice, and some new staff members in place, we had our hands full planning and executing our 40th Anniversary Gala and Silent Auction, our largest fundraiser of the year. Two



*From left to right: Guy Piserchia, Mayor of Long Hill Township, Congresswoman Mikie Sherrill, and Sally Rubin, Executive Director of GSWA*

months out, we (temporarily) hired Sarah Thorpe to manage the silent auction portion of the event. Working together with new hire Nancy Rago, who seamlessly managed the technical piece, and other motivated staff and volunteers, our robust silent auction was launched one week prior to the Gala with over 120 items up for bid.

On October 7, we celebrated in style outdoors under a starry sky in an open-air tent at the Brooklake Country Club, Florham Park, NJ. The weather was perfect. Although this Gala was smaller in size than

previous years, it was big on smiles. There was a charge in the air as old friends reconnected once again in the name of clean water and land.

The intimate gathering was attended by 214 GSWA supporters (about half the size of previous years) with a timely presentation on climate change by guest speaker, David Robinson, distinguished professor at Rutgers University and the New Jersey State Climatologist. Earlier in the evening, we were honored by a visit from Congresswoman Mikie Sherrill, 11th Congressional District of New Jersey, who presented GSWA with a plaque to commemorate “40 years of service to the community and their commitment to protecting and preserving the health of the Passaic River.”

We are pleased to announce that this fundraiser exceeded our financial goal, which helps support our water quality and environmental education programs and more. None of this would have been possible without our:

- Generous underwriters: New Jersey American Water, Atlantic Health System, Dixon Energy, Senlac Ridge Partners, Adrienne & Reed Auerbach, Avelino Law, BASF, Agi & Matt Krauser, PSEG, Schenk, Price, Smith & King, and Valley Bank
- board and advisory council members who helped obtain silent auction items, promote the event, and help with numerous other necessary tasks
- donors and supporters
- amazing volunteers leading up to and during the event
- hard-working staff

*(continued on page 23)*

# Land Trust Re-accreditation is Underway!

By Ginger Van Ryzin, Education, Water Quality and Land Steward Associate

In 2017, GSWA received national recognition from the Land Trust Alliance by becoming one of only 389 accredited land trusts across the nation. During the accreditation process, land trusts must demonstrate fiscal accountability, strong organizational leadership, sound transactions and



- Sound Finances
- Ethical Conduct
- Responsible Governance
- Lasting Stewardship

lasting stewardship of the lands we conserve. GSWA is thrilled to have met this criteria in our initial accreditation.

This spring we must be re-accredited, a process every accredited land trust must complete every five years to affirm that we properly manage, monitor, and protect our preserved lands. Since our initial accreditation five years ago, GSWA has taken ownership of two new properties, a 20-acre property in Harding connecting our Conservation Management Area properties together, and a 10 acre parcel in Chatham Township contiguous to a 3 acre parcel we also own. With this re-accreditation, GSWA continues to support our mission to protect the health of the Passaic River through land preservation within the Passaic headwaters region and demonstrating our commitment to sound fiscal and organizational management. 🌲

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## GSWA 40th Anniversary Gala – A Successful Live Event! *(continued from page 22)*

We hope to see you at our next Gala in October 2022! 🌲



Gala attendees outdoors under the tent



# Hot Spots

By Sally Rubin, Executive Director

## Rolling Knolls Landfill Superfund Update

In our last newsletter, I was pleased to announce that Chatham Township, Great Swamp National Wildlife Refuge, the Miele Trust (owners of the 135 acre private portion of the site), and GSWA had entered into a Memorandum of Understanding supporting public use of the private portion of the site for open space, wildlife conservation, habitat restoration, and passive public recreation. Subsequent to that Memorandum, several of the parties to the agreement, including GSWA, received letters from the Potential Responsible Parties (PRPs). The letter from the PRPs claims that the MOU intentionally interferes with the relationship between the PRPs and the Miele Trust and that a settlement agreement between the PRPs and the Miele Trust prohibits public use of the site. The settlement agreement has not been made available for review. GSWA has responded to the PRPs and disagrees with its allegations. GSWA continues to believe that a clean up remedy which will facilitate public passive recreation is in the best interests of the community.

The Rolling Knolls Community Advisory Group will hold a meeting on March 29 at 6 PM via Zoom. The Fish & Wildlife Service (FWS) consultant, Applied Intellect, will present the results of their investigation of the Refuge-owned portion of the Rolling Knolls Site. The purpose of the investigation was to address data gaps in the remedial investigation that were identified by FWS, and to share the results with EPA and the PRP

group in the hope to better guide in the selection of an appropriate remedy. Findings of this investigation indicate widespread contamination of several constituents including PCBs, mercury, lead and PFAS (gaining



Additional industrial drums located at Rolling Knolls Landfill

more media attention as a class of “forever chemicals”). In addition, several drums and other indicators of industrial waste disposal were observed. There will be time set aside for questions/open discussion after the presentation.

## Noe Pond Club in Chatham Township

In a previous newsletter, we announced that the Noe Pond Club in Chatham had been sold to a developer in December 2020, who was proposing to build multi-family housing on the site. The club sits on 35 acres directly bordering the Great Swamp National Wildlife Refuge. Much of the site is wetlands. GSWA joined forces with a grassroots coalition called Save Noe Pond to prevent over-development of this sensitive ecosystem. We are pleased to report that, as of January 14, 2022, the club will apparently be sold to two longtime club members and remain a swim club, according to a newspaper article by Claudia Ceva on January 14, 2022, in the Chatham Courier. 🌲



# 5th Annual Great Swamp Great Music Festival

## Sunday, May 22, 12-5 PM

### Giralda Farms, Chatham Twp., NJ

**W**e're bringing back some fan favorites and showcasing some popular new bands to celebrate five years of live, outdoor music with good food, beer, wine, cider, unique merchandise vendors, and so much more. Set aside this Sunday afternoon in May for you, your family, and friends to recharge your batteries at our 5th Annual Great Swamp Great Music Festival. The sprawling, tree-lined field at Giralda Farms provides a beautiful space to

spread out a blanket or set up some beach chairs and get lost in hours of continuous live music. Come out and enjoy our second largest annual fundraiser in support of clean water and land. Fair warning, once you attend one, you'll want to come back every year! Ticket fees are the same low price as always: \$25/adult (\$30 at the gate); \$15/high school and college students; children 13 and under are free. Tickets will be on sale soon at [GreatSwamp.org](http://GreatSwamp.org) – stay tuned! 🌿

*Save the date*

**Sunday**

**May 22**

**12-5 PM**

**Giralda Farms - Chatham Twp, NJ**

**5 hours of live, outdoor music, good food, beer wine & cider, unique merch vendors, so much more...**

**Tickets on sale soon @ [GreatSwamp.org](http://GreatSwamp.org)**

**GREAT SWAMP**

**GREAT MUSIC!**



# Test the Tap

by Tatiana Morales, GSWA Intern

**E**xactly why is clean drinking water important? The human body is made up of approximately 60 percent water. This essential resource assists in many crucial bodily functions, ranging from maintenance of body temperature to the transportation of nutrients. Did you know that between 50 and 100 liters of water per person per day are needed to ensure that most basic needs are met and few health concerns arise, and most drinking water consumed by US citizens comes from the tap?

Clean water is vital to our health, communities, and economy which is why clean water is essential to the awareness of all human rights. Safe water is a necessity to provide nourishment, prevent disease, to help get rid of toxins, but also for agriculture, food production, and to improve sanitation facilities. It is easy to take for granted the ability to turn on our faucet and have clean water but it is a human right that is out of reach for many Americans. Although a large population of the country has safe drinking water, there is still an ongoing household water crisis in the United States. As we've seen throughout history, with the most recent and still ongoing issue in Flint, Michigan, clean water is far from guaranteed; this crisis sparked a nationwide debate about drinking water quality, environmental justice, equal treatment and protection from environmental harm regardless of race, ethnicity, or income. Low-income and minority communities often face disproportionately high pollutant exposures which can be a cause of socioeconomic disparities. While few studies have looked for links between drinking water and environmental justice indicators (poverty, race/ethnicity),

existing studies have found associations between poorer drinking water quality and these indicators. According to the EPA, at the beginning of 2020, more than 30 million Americans lived in areas where water systems neglected safety rules.

Doubts of what's in your tap water can increase the use of plastic water bottles, which greatly harms the ecosystem, from aquatic ecosystems to air pollution; approximately 22 billion water bottles are discarded yearly and most of these bottles end up in the ocean, and production of plastic releases carbon dioxide, a major greenhouse gas. This overconsumption of plastic has led to excessive waste caused by littering, poor recycling programs, and landfill spillover which some scientists predict will become as serious a problem as climate change.

What can we do to make an impact? Stop the use of plastic, educate the next generation on the dangers of single-use plastics and participate in local clean-ups and events.

A lack of access to high quality certified low cost testing programs might bring up the question; what's in my water? Let GSWA help you test your tap! In March, GSWA is launching our Test the Tap campaign, when we offer to test your tap or well water at discounted rates. New Jersey has very good and safe public drinking water; however, during transport contaminants can leach into the water through old pipes. Along with this, about 12% of people in NJ get their water from private wells where the owners are responsible for testing their water. So, GSWA is setting out to Summit, NJ to "Take Back Our Tap" to show that tap or well water may be *(continued on page 27)*

## Matching Gifts

**D**ouble your donation with a **company match!** In the last year we have gratefully received matching gifts from companies like ADP, Ameriprise, Boeing, Bristol-Myers Squibb, Google, J.P. Morgan Chase, Johnson & Johnson, Microsoft, Pfizer, and PSEG. Many corporations encourage employee charitable giving through workplace giving like a matching gift philanthropy program and, in many

cases, the employer will match and sometimes even triple the employee's donation.

**Does your company match?** If you donate to GSWA, ask your human resources department. A small effort on your part may double, and sometimes even triple your donation, depending on your company's policy. Thank you for taking the extra steps that will push your donation the extra mile! 🌲

**Your socks match.  
Does your company?**



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### Test the Tap *(continued from page 26)*

better than you might assume. Interested participants can pick up a testing kit at one of the participating locations in March and take a sample of their water and drop it off at the GSWA collection location. Watch our events page for more information on pick up and drop off sites as well as dates. The goal

of our program is to promote the awareness, appreciation, knowledge and understanding of water quality and harmful effects of plastic bottles on the environment.

Please visit our web site at [greatswamp.org](http://greatswamp.org) for further information on our downstream expansion of the Test the Tap program. 🌲

# New Art Installations to Grace Dundee Island Park

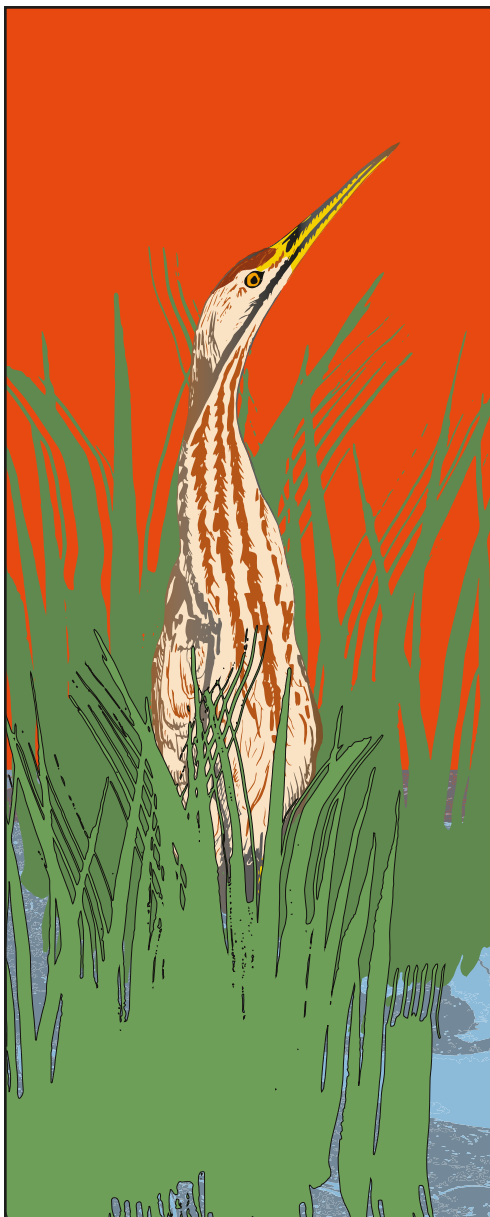
*By Hazel England, Director of Education & Outreach, Land Steward*

**D**undee Island Park, on the banks of the Passaic River in Passaic, NJ will be getting a couple of unique new temporary art installations this spring. The park has recently been redeveloped in partnership with The Trust for Public Land and the city of Passaic to make it a more welcoming space for area residents. Streambank restorations, strolling paths and other amenities allow park visitors to get riverside. Artist Adriane Colburn's two art projects will give them some environmentally themed art to enjoy as well.

One installation – termed Units of Measure – uses US Geological Survey data to create sculpture that visually represents past and future tidal floods. The Passaic River below Dundee Island Dam is tidal, albeit freshwater tides that rise and fall each day. This area is also subject to frequent and increasing flooding, from both local and global impacts. The city of Passaic has a high degree of impervious cover, from houses to roads and other surfaces which do not allow water to infiltrate, but cause it to rapidly runoff, flowing toward the Passaic quickly after storm events. Those storm events are also happening more frequently. New Jersey now receives 15% more rain that it used to.... And those rains fall harder during more intense storms. Warming temperatures and sea level rise all increase flood risk to New Jerseys rivers and coastline, and NJ is seeing some of the country's biggest climate related changes.

Artist Adriane Colburn, in a project commissioned by NOAA, NJDEP and the New Jersey Council on the Arts has been working to represent how temperatures

have changed and increased. Her work will consist of 2 posts – One a gauge to measure past and future floods; the second a data



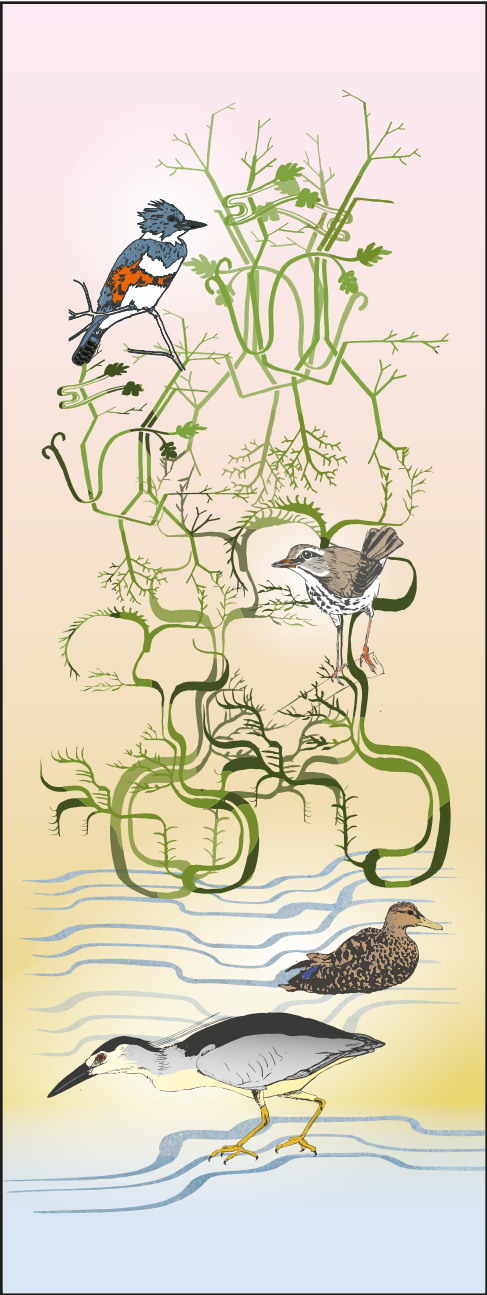
*Banner created by artist Adriane Colburn*



visualization piece whose form is defined by measurements made by a nearby USGS water gauge that measures how much water is coursing through the river at any time. The data goes back to 1898 which will allow viewers to see how water has changed over time, they will see not only that the temperature has changed, but there is more water flowing, and the top 45 floods have mostly happened since 1990 – with a few outliers.

The second project is a series of beautifully illustrated bird banners that will be installed on light posts within the park. The banners depict 40 bird species that either should be or are found on the riverside site. Birds chosen are all species that are under increasing threat from climate change. Some birds depicted are threatened directly by temperature changes, while others face habitat loss or pollution related issues.

Visitors to the park can enjoy the installation as they stroll, or learn more about the species from some supplemental materials which will accompany the art. GSWA is excited to learn of these projects, as a new programming relationship with Boys and Girls Club of Passaic will have us programing this spring and summer in that exact location, and we are already planning ways we can incorporate the art into activities we will conduct with the students we will work with. For more information about visiting, visit [seepassaiccounty.org/explore/parks/dundee-island-park/](http://seepassaiccounty.org/explore/parks/dundee-island-park/) 🌿



Banner created by artist Adriane Colburn

# NJ Plastic Ban – Where are we at now?

By Ginger Van Ryzin, Education, Water Quality and Land Steward Associate


In 2020, New Jersey lawmakers passed a law to limit single-use plastics and Polystyrene foam products. The first stage of the law went into effect in November 2021, making plastic single-use straws available only upon customer request. Although this does not completely ban single-use plastic straws, it makes the customer think twice before using a plastic straw and encourages them to bring their own reusable straws.

ry-out bags, and instead must sell reusable fabric bags. Polystyrene foam products will also be banned at this time including food containers, hot and cold cups, egg cartons and more. There will be a two-year extension for some Polystyrene products including pre-packaged food products, meat and fish trays, cups two ounces or less that require a lid, polystyrene foam soda spoons used for thick drinks, and other food service products

## WHAT'S BANNED, WHAT'S NOT


### BANNED

- SINGLE-USE PLASTIC BAGS
- SINGLE-USE PAPER BAGS
- POLYSTYRENE FOAM FOOD-SERVICE PRODUCTS




### LIMITED

- SINGLE-USE PLASTIC STRAWS



### EXEMPT

- NEWSPAPER BAGS
- LAUNDRY BAGS
- PHARMACY BAGS FOR PRESCRIPTION DRUGS
- BAGS CONTAINING LOOSE VEGETABLES, UNCOOKED FISH, MEAT AND POULTRY



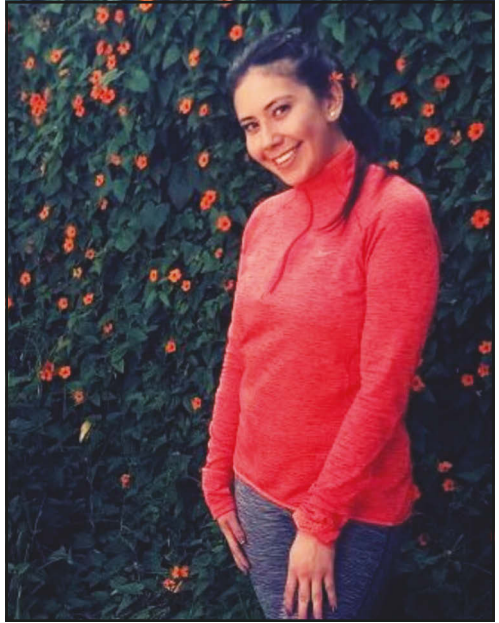
The next stage of the plastic ban law will go into effect May 4<sup>th</sup>, 2022, banning single-use plastic bags and Polystyrene food containers. While towns like Madison, Chatham, Summit and Parsippany have already banned single-use plastic bags, many NJ businesses will have to make the switch to non-plastic carryout bags. This ban goes further, stopping large grocery stores 2,500ft<sup>2</sup> or more from providing or selling paper car-

ry-out bags, and instead must sell reusable fabric bags. Polystyrene foam products will also be banned at this time including food containers, hot and cold cups, egg cartons and more. There will be a two-year extension for some Polystyrene products including pre-packaged food products, meat and fish trays, cups two ounces or less that require a lid, polystyrene foam soda spoons used for thick drinks, and other food service products

This law is a huge win for our environment. On average, a U.S. family will use about 1,500 plastic shopping bags per year, and of that only 15 of them will be properly recycled. With about (continued on page 31)

**T**atiana Morales is an Undergraduate at William Paterson University majoring in Public Health with a concentration in Education, who is joining our staff as an Intern throughout the spring. Her love for the outdoors and her desire to learn led her to volunteer in Ecuador, where she was a part of the Beach Community and Child Enrichment Program. This strengthened her desire to pursue experience in environmental advocacy and education.

“I am extremely excited to join the GWSA staff. I believe that we all have the opportunity to make a difference and being surrounded by the inspiring individuals at GSWA who make a difference each day in the community will lead me to gain the knowledge and skills to help spread the awareness of important environmental issues”. 🌱



Tatiana Morales

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### **NJ Plastic Ban – Where are we at now?** *(continued from page 30)*

three million families living in New Jersey alone, this ban will over stop over 4 trillion single-use plastic bags from sitting in a landfill or worse, becoming litter and polluting our waterways. Both plastics and Polystyrene float, making it easy to transport long distances along rivers like the Passaic. During transport, the litter could release chemicals into the water, be eaten by wildlife, or break down into microplastics. GSWA has conducted microplastic sampling since 2018 and found microplastic present at all sites sampled within the Great Swamp Watershed and along the Passaic River as far as Livingston, where our testing stopped. Preventing consumers from using single-use plastic and Polystyrene is key to decreasing microplastics and other litter in our environment.

What are the next steps in banning plastics? Although this is a huge win for the environment and NJ water quality, we must press on and demand further change. Single-use plastic water bottles are one of the top litter pollutants in NJ waterways and beaches. Restricted indoor dining due to COVID-19 has caused plastic take-out food containers to be at an all-time high. Consumers are still heavily dependent on single-use plastics, and it is up to us to reduce our reliance on these plastics while pushing our legislators to enforce stricter rules to keep our wildlife, our waterways, and our environment clean of plastics.

For more information go to: [nj.gov/dep/plastic-ban-law/](https://nj.gov/dep/plastic-ban-law/) 🌱

# GSWA Paddles Deeper into the Passaic with Kayak Grant

*By Lynne Applebaum, Director of Institutional Relations and  
Hazel England, Director of Education & Outreach, Land Steward*

**T**hanks to a grant from the Thomas Glasser Foundation, GSWA has been able to purchase kayaks, paddles, life vests, dry bags, binoculars, and a trailer for transporting the kayaks, which

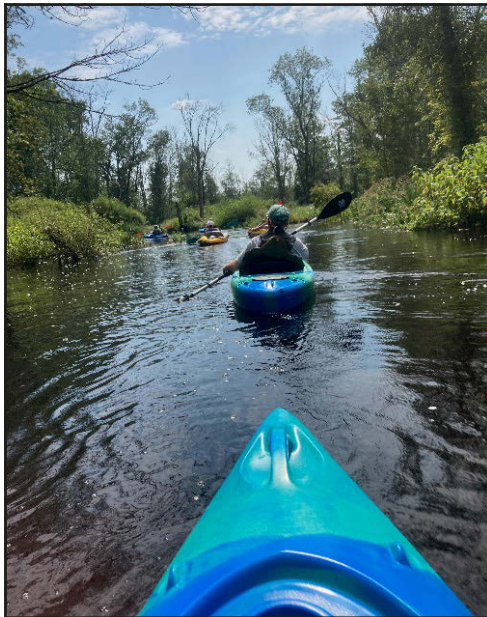
stretches of the Passaic and its tributaries, and sample in multiple locations in a short space of time- important for our water quality data gathering. They will help us to conduct new, instream water quality sampling including our upcoming PFAS sampling.

They will be used to conduct stream educational programs with communities both upstream and down, connecting people in meaningful ways to the river that flows through the communities where they live or work, and that might otherwise be inaccessible to them. In downstream and underserved communities, seeing the land from the water may be a new experience for many people unused to seeing the river in a new way.

We will also be able to use the kayaks to conduct river cleanups. Where previously we were confined to cleaning up only from the stream banks, the boats will allow us a great range of mobility to access snags in the wider areas of the river which often catch floating debris and hold it there. Invasive management of certain species may also be accom-

will allow us to comprehensively sample for water quality along harder to reach stretches of the Passaic River and its tributaries. The boats will also enable us to hold Passaic River clean-ups from land and water, as well as limited educational paddle events for the public.

As we move downstream with our water quality sampling and the river widens, sampling from the banks becomes harder, and data less reliable than that gathered while sampling from mid-stream. Our kayaks will allow us to conduct quarterly water quality sampling along these difficult to reach



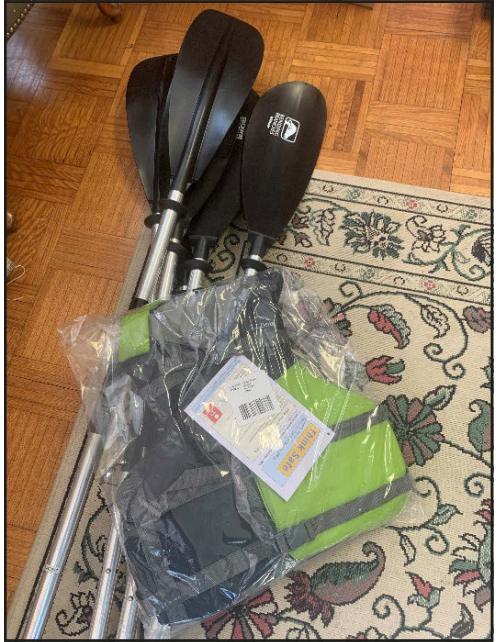


plished from the boats- they can help with removing invasive water chestnut or assessing other emerging invasives on stretches of the river.

“Having led paddling programs for many years at a previous job, I know how valuable the opportunity will be to get our members and the public to connect with the river we work so hard to protect,” commented Hazel England, GSWA’s Director of Education and Outreach. “We aren’t looking to replicate other local, successful paddling programs, but to integrate these new kayaks into our existing



mission, which puts exploring the watershed, understanding the relationship between land use and water quality, and learning about the resources and biodiversity of the Passaic River front and center.” The generous grant has allowed us to purchase kayak seating for a minimum of eight, in combination of stable flat-water single and tandem boats, along



with essential life vests in a range of sizes, paddles, drybags and a trailer to haul the lot around. The equipment is just beginning to arrive, and we are like kids in a candy store unwrapping the many boxes that arrive each week to our office.

Come join the GSWA team for a special screening of “American River,” at the Mayo Performing Arts Center in Morristown on March 31st at 7:30 pm and enter to win a two-hour educational paddle along the Passaic OR win ten pollinator plant plugs to start your native garden! You must be present to enter the raffle. (see article on the American River screening in this newsletter)

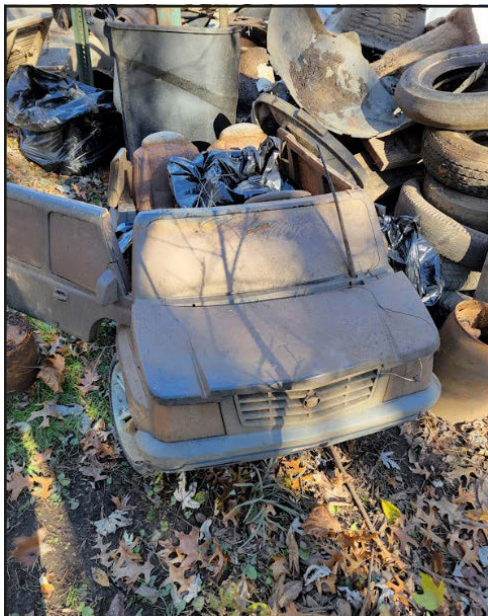
Look for some initial programs in late spring, and we hope to see you out on the water! 🛶

# GSWA Cleans up Streams!

*Sandra LaVigne, Director of Water Quality Programs*

In 2021 GSWA took to the streambanks to help improve water quality one piece of trash at a time. We began in July with our City of Water Day Cleanup. Teams of volunteers headed out to four different sites around the watershed to clean up the streams and streambanks and count the plastic items they found along the way. At the end of a very successful day our teams collected over 450 pieces of plastic out of the waters of the region once again highlighting the need for single use plastics policies.

Following Hurricane Ida in August, many streamside areas were inundated with debris carried along by the floodwaters and left there as the waters receded. One such area was the floodplain along the Passaic River in Fairfield, NJ. When GSWA staff and volunteers were collecting water quality samples at the boat launch on Camp Lane in Fairfield



following the storm, they observed massive quantities of debris left behind by the stormwaters. Quickly reaching out to partners in the area, GSWA joined forces with AmeriCorps Watershed Ambassador Sydney Abraham to organize a clean-up. Sydney worked with Essex County DPW to acquire supplies including three new wheelbarrows to help collect the trash.

On November 19, 2021, we headed out to clean up the mess. A total of 15 volunteers came out to help including students from The Mount Saint Dominic Academy Environmental Club and Drew University, 3 AmeriCorps Watershed Ambassadors, GSWA Stream Team volunteers and local residents. The clean-up team pulled enough trash and debris from the flood plain adjacent to the river to fill a ten-yard dumpster including 23 tires, a small electric toy car, and a wooden porch swing. At the end of the day



*Ginger Van Ryzin, Education, Water Quality and Land Steward Associate*



the DPW came out with a pickup truck to remove the piled-up trash and then left to get a bigger truck!

Keeping our waters clear of trash and debris is an important step in improving and protecting the water quality. When trash clogs the stream channels it can not only cover important habitat needed by the aquatic wildlife but it can impact flow causing high flood levels and damage to local homes and business.



Photos by Sandra LaVigne

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

Please send an email to [info@GreatSwamp.org](mailto:info@GreatSwamp.org) if you would like to volunteer.

# If Wishes Were Horses...

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

**C**onfused about whether the empty yogurt container you are holding should go in the recycling or trash? What about those spring plant pots you stack up each year, can those hit the blue bin? In 2018, the last year for which data is available, New Jerseyans generated more than 23 million tons of solid waste and recycled only 13.3 million tons (NJDEP) .... One could wish those numbers were reversed, as overfull landfills close, disposal costs spiral, and CO2 emissions spike when we ship trash long distances. Single use of items is a huge waste of resources, not to mention a pollution problem we are leaving for future generations as landfill leachate becomes a potential water quality issue in groundwater.

Many, concerned with living more lightly on the planet, are looking to reduce the amount of trash they generate and are committed recyclers. We all want the plastic sushi container to be recyclable, and 'hate to throw it out' so we drop it into our blue buckets and feel like we are playing our part. Enter wish-cycling. Wish-cycling is the term coined for that hopeful recycling, even if there is little evidence, market, or even explicit rules against, recycling the item. Wish-cycling is the optimistic act of individuals trying to reconcile the vast volume of non-recyclable waste most American households generate, with the wish for it to be recycled and the resources re-used.

In response to public concerns over amounts of waste being generated, the recycling industry took shape in the 1970s. Plastic resins used in manufacturing were identified with the chasing arrows recycling triangles with numbers 1-7 within. Recycling programs sprang up in communities and there

was hope that by recycling, we were creating a truly circular economy, where materials could be eternally re-used. This is indeed the case with steel and aluminum recycling- mandated throughout New Jersey, where a buoyant recycling market exists, but it is far from true where plastics are concerned.

Many communities initially encouraged homeowners to recycle all plastics, cementing good behaviors and increasing the overall recycling rate, even though all but plastics #1 (polyethylene terephthalate, or PET) and #2 (high-density polyethylene, or HDPE) are difficult to recycle and often didn't have viable markets. Excess plastics not recycled were crushed, baled, and shipped to China, where they were incinerated for energy production, at huge pollution expense. This all changed in 2018 when China implemented 'operation National Sword', banning the import of most plastic waste from overseas, including the USA, creating huge backlogs of recyclable materials in municipal depots.

To address this problem, homeowners must follow the most up to date information on exactly which plastics and other materials can be recycled in their town. Contaminating municipal waste streams with material that cannot be recycled depresses the trading market for those plastics such as #1 and #2 that can and requires loads to be manually sorted or even discarded. Employing the mantra "when in doubt, throw it out" may run counter to all that you wish for your waste, but being selective about placing items in blue bins your community can successfully recycle is the first step.

The longer-term solutions are to design products with their full life cycle in mind- al-



lowing them to be entirely re-used, composted, or recycled. New Jersey has taken a small step in the right direction with a new law which comes into effect this May. S864 bans single use plastic bags in all stores and food-service businesses statewide. The law is considered the strongest ban on single-use bags in the country, even laying out what types of reusable bag can be sold in stores. Until similar laws exist to force manufacturers to reduce, re-use, or truly recycle the wrappings and containers all

products are made in, we need to read labels, recycle correctly, and make purchasing decisions with the eventual disposal of the wrapper or container in mind. In the meantime, here are some helpful recycling guidelines to learn more about just what can and can't be recycled in your community and to avoid wish-cycling! (and by the way Yogurt pots, typically plastic #5 can be recycled in some Watershed towns and not in others...) 🌲

**Somerset County:** [co.somerset.nj.us/government/public-works/recycling](https://co.somerset.nj.us/government/public-works/recycling)

**Union County:** [ucnj.org/recycling/](https://ucnj.org/recycling/)

**Morris County:** [mcmua.com/sw\\_recy\\_singlestream.asp](https://mcmua.com/sw_recy_singlestream.asp)

**Passaic County:** [passaiccountynj.org/departments/health/recycling-and-natural-resources-division](https://passaiccountynj.org/departments/health/recycling-and-natural-resources-division)

**Essex County:** [westorange.org/652/Recycling-West-Orange-Environmental-Cent](https://westorange.org/652/Recycling-West-Orange-Environmental-Cent)

**Take the GSWA “Source to Sea” Challenge** *(continued from page 1)*

The *RunSignup* platform for this event has an interactive map that will monitor each individual’s progress along the Passaic River and educate them on the important work of the GSWA, the ecology and wildlife of the river, and why these ecosystems are so critical to a robust and healthy environment for us all.

As a board member, I love the idea because it is a fun, unique, and inclusive way to expand our reach while offering an engaging and informative activity for those involved.

The “Source to Sea” challenge runs Sat-

urday, March 12 through Sunday, May 15. The registration fee of \$35 includes a cool, commemorative t-shirt. Shipping is available for \$6.95 per shirt, or you can pick it up from GSWA headquarters. Everyone who completes the 80 miles within the 65-day window will receive one free ticket to Great Swamp Great Music on May 22.

Registration is open now at [GreatSwamp.org/events](https://GreatSwamp.org/events).

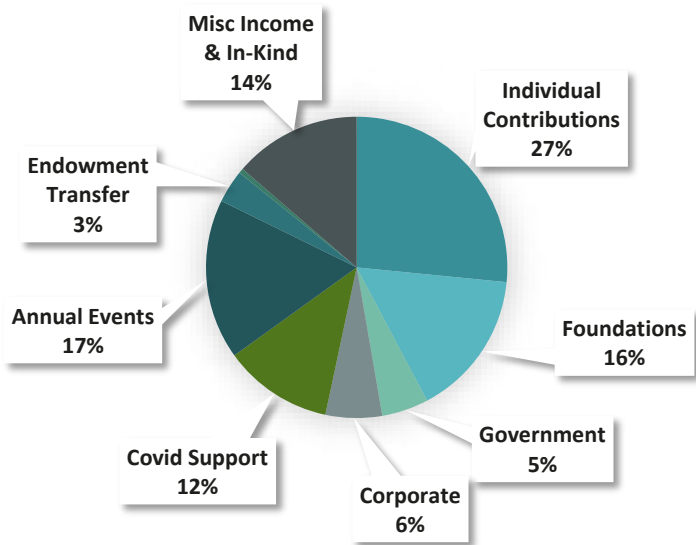
If you would like to become a sponsor of this event, email [virtualrun@greatswamp.org](mailto:virtualrun@greatswamp.org). 🌲

# Financial Report: Statement of Activities for the Fiscal Year Ended June 30, 2021

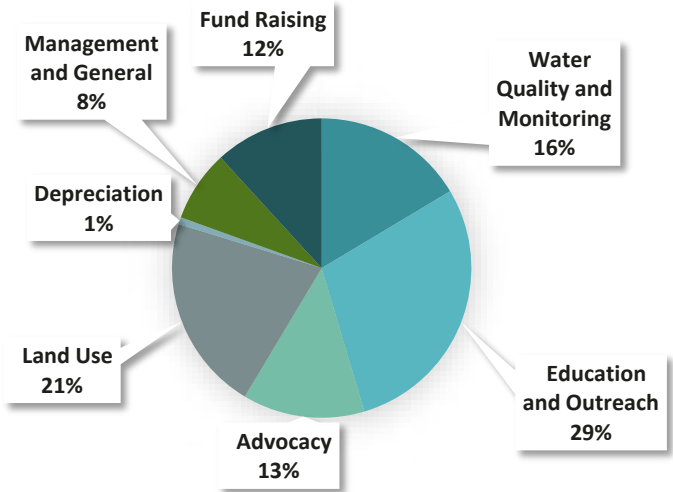
by Sue Levine, Director of Finance

	2021
<b>INCOME</b>	
Individual Contributions	\$ 361,061
Foundation Support	\$ 213,417
Government Grants	\$ 68,098
Corporate	82,392
Annual Events (Gross)	233,730
Endowment transfer in (4% draw) - see Note 1	48,246
Programs	6,996
Misc Income & In-Kind	185,804
<b>Total from Primary Operations</b>	<b>1,199,744</b>
Covid Support	159,461
<b>Total Operations</b>	<b>1,359,205</b>
<b>EXPENSES</b>	
Programs:	
Water Quality and Monitoring	\$ 173,783
Education and Outreach	\$ 304,609
Advocacy	\$ 137,357
Land Use	\$ 223,185
Total Program Expense Note 4	838,934
Management and General	80,239
Fund Raising	122,898
<b>Total from Primary Operations</b>	<b>1,042,071</b>
<b>SURPLUS/(DEFICIT) - see Note 1,2 (a)</b>	<b>\$ 317,134</b>
<b>ENDOWMENT ACTIVITY</b>	
<b>Market Value 6/30/20 Note 3</b>	<b>\$ (1) \$ 1,205,838</b>
Investment Income & Interest Earned (b)	38,996
Gain/Loss on Investments (c)	254,096
Net change - see Note 2	293,092
Transfer to Operational Funds Note 1	(48,246)
<b>Endowment Market Value 6/30/21</b>	<b>\$ 1,450,684</b>
<b>Market Value 6/30/20 Operational Funds Invested</b>	<b>\$ 168,285</b>
Change to Operational Funds Invested	131,695
<b>Market Value 6/30/21 Operational Funds Invested</b>	<b>\$ 299,980</b>
<b>Total Funds Invested 6/30/2021</b>	<b>\$ 1,750,663</b>

# INCOME



# EXPENSES



**Note 1:**  
The organization did not use 4% allotted to operations from the endowment. The funds were set aside as Invested Operational Funds. These funds include the Endowment Transfer 4% and market changes.

**Note 2:**  
To tie to the audited financial statement's "change in net asset" line, you need to add (a), (b), and (c) above.

**Note 3:**  
The Endowment has \$65,080 permanently restricted funds

**Note 4:**  
Depreciation of \$7,986 is included in program expenses



## **Great Swamp Watershed Association**

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