

SHORE RIVERS ADVOCATE

CHESTER | MILES, WYE, & EASTERN BAY

CHOPTANK | SASSAFRAS & BAYSIDE CREEKS



SPRING 2022



CELEBRATING **50 YEARS** OF THE CLEAN WATER ACT



Working with Minary's Dream
Alliance for Equitable Access

Scientific Water Quality
Monitoring Supports Healthy
Waterways

and more...

*Summer intern Erin Stubbs collects underwater grasses
to determine species distribution in the Choptank River.*

LETTER FROM THE **EXECUTIVE DIRECTOR**

Two years of quarantine, isolation, and virtual connection has taken its toll on our mental, emotional, and social health. This year, ShoreRivers is committed to hosting safe, in-person events and volunteer opportunities for you—our members—and for everyone in our communities. We need to reinvigorate ourselves with real, meaningful, face-to-face interactions. By doing so, we will begin to heal not only the environment, but also ourselves.



Get involved. Engage with others. Make a difference. I guarantee you will see personal benefits, in addition to advancing the goals of important environmental and social initiatives. The only way we will preserve our wild places, slow climate change, and achieve social justice is by **engaging** in this righteous work.

Read the next page to discover how you can **engage with our Solstice Expeditions** in June; purchase tickets for exclusive access to local celebrities and ShoreRivers staff on exciting, one-of-a-kind excursions around our watersheds. On the following pages, learn how you can **engage with our scientific monitoring programs** to track underwater grass growth, sample bacteria at swimming sites, and assist the Riverkeepers in monitoring water

GET INVOLVED. ENGAGE WITH OTHERS. MAKE A DIFFERENCE.

quality. On our special coverage of the 50th anniversary of the Clean Water Act (pages 8–11), learn how civic engagement in local government can hold polluters accountable and impact land use policy.

On page 12, you'll hear from guest writer Julia Buchanan, a junior at the Gunston School, about how **youth are more than ready to engage** in environmental and climate change initiatives. And finally, learn how to **engage in our River-Friendly Yards program** to make a difference in your own backyard.

I urge you to get involved with the local causes that inspire you. Our movements for environmental protection, climate stabilization, and social justice will benefit from your voice and your action. And your own mental, emotional, social, and physical health will benefit, too.

Our movements for environmental protection, climate stabilization, and social justice will benefit from your voice and your action.

A handwritten signature in black ink that reads "Isabel C. J. Hardesty".

Isabel C. J. Hardesty
Executive Director



Photo by Dave Harp

All photos are by ShoreRivers staff unless otherwise noted.

SHORERIVERS SOLSTICE EXPEDITIONS



Dear ShoreRivers,

I just wanted to let you know that I thought the subject expeditions I attended were wonderful experiences! My guests and I participated in two expeditions and loved every minute of it. John Gillespie was so friendly and knowledgeable and extremely patient with us as we bombarded

him with questions. His passion for what he was doing was matched only by Captain Andy's! I was on his boat along with Sassafra Riverkeeper Zack Kelleher and it was an excellent outing. The surprise entertainment was charming and made our entire adventure special.

Upon hearing of my day, so many of my friends expressed great interest in participating in the types of expeditions you put together. Please keep it up! I think it's a great way to spread ShoreRivers' message and raise needed funding. Thank you again for all your efforts.

Cheers,

Jaki Hurwitz

We heard you, Jaki, and we're back with a new slate of expeditions that showcase our passion for swimmable, fishable, healthy waterways! Join an Expedition and get your Celebration tickets at shorerivers.org/events. All ticket and auction proceeds benefit water quality on the Eastern Shore.

SATURDAY, JUNE 25, 2022
SOLSTICE CELEBRATION
on the Chester River at Hodson Boathouse
from 6-9 pm





SCIENTIFIC WATER QUALITY MONITORING SUPPORTS HEALTHY WATERWAYS

SHORERIVERS STRIVES FOR HEALTHY WATERWAYS.

A healthy waterway is one with an ecosystem in balance—no excess nutrients causing algal blooms, no sediment clouding the water, no dead zones making whole swaths of river bottom devoid of life. A person can safely swim and fish in healthy waterways—there are no human-caused bacteria blooms or toxic algal blooms causing illness and sometimes death. Our vision is for clean, healthy, swimmable, fishable rivers on the Eastern Shore.

ShoreRivers has built robust monitoring programs in order to understand our rivers' health, track pollution trends, and identify pollution hotspots. ***We use scientifically rigorous methods developed by state and national monitoring agencies to monitor levels of nutrients, sediments, dissolved oxygen, algae, bacteria, toxic algal blooms, and underwater grasses.*** We use this information to develop remediation strategies, advocate for stronger laws and enforcement, alert the public of potential health risks, and inform region-wide efforts toward clean water goals.

Our staff and dedicated volunteers have been collecting water quality data for over 20 years, continually evolving our methods to stay scientifically up-to-date and to meet the changing needs of our communities.

This comprehensive data set and proven track record establishes our approach as science-based. We frequently present at conferences, provide language for legislation, inform technical documents, and contribute data for state and national reports. Our monitoring programs have earned us a seat at the table for local, state, and national discussions on water quality and restoration efforts, allowing us to truly become the voice for clean water on the Eastern Shore.

MONITORING WATER QUALITY: NUTRIENTS, SEDIMENTS, DISSOLVED OXYGEN, AND ALGAE

From April to November each year, our four Riverkeepers sample 63 sites on the tidal portions of the Sassafras, Chester, Miles, Wye, and Choptank Rivers, Bayside Creeks, and Eastern Bay. Riverkeepers use YSI meters to test water temperature, salinity, and dissolved oxygen, and use secchi disks to measure water clarity. Water samples are processed at local labs for nitrogen, phosphorus, and chlorophyll-a (an indicator of algae). Data collected each year, combined with historical data going back decades, give us an understanding of the long-term health of our waterways.

Year after year, data trends continue to show slightly improving water quality.

Years with heavier rainfall result in poorer water quality as more pollution on land is washed into the rivers. Each river has locations that experience

Contribute to these
monitoring efforts!

Sign up at
ShoreRivers.org/volunteer



ZACK KELLEHER
SASSAFRAS RIVERKEEPER



MATT PLUTA
CHOPTANK RIVERKEEPER



ANNIE RICHARDS
CHESTER RIVERKEEPER



ELLE BASSETT
MILES-WYE RIVERKEEPER

chronically poor water quality, such as shallow, slow-moving headwaters with minimal circulation and flushing; waters on the receiving end of a discharge pipe; or waters with significant levels of legacy pollutants seeping out over time. However, the robust resurgence of underwater grasses across all our waterways suggests generally improved water quality, as underwater grasses need a certain healthy water threshold to grow and reproduce.

We have developed watershed assessments for many subwatersheds using our historical water quality data in addition to GIS analysis of land use and water flow patterns.

These assessments inform our restoration priorities in each watershed as we strive to cost-effectively reduce pollution. You can see all our assessments on our website: ShoreRivers.org/technical-documents.

SAV WATCHERS: MONITORING UNDERWATER GRASSES TO UNDERSTAND RIVER HEALTH

Underwater grasses (or SAV: Submerged Aquatic Vegetation) are vital to the health of our rivers as they provide habitat for fish and crabs, oxygenate the water, filter sediment, absorb nutrients, sequester carbon, and aid in shoreline resilience.

SAV Watchers is a ShoreRivers volunteer program assisting in the effort to increase the acreage of underwater grass beds in our rivers.

The four-step process involves our staff and a large team of volunteers who 1) monitor existing beds to understand species diversity and geographic location, 2) harvest seeds using hand rakes, 3) turbulate harvested material to refine the seeds, and 4) plant seeds in new bed locations.

You can read about turbulation and planting (steps 3 and 4 of this process) in our Fall 2021 Advocate Newsletter found on the Publications tab of our website. Steps 1 and 2—monitoring and harvesting—are the important first steps for which we need a large team of volunteers deployed on all our rivers: SAV Watchers. After a quick training course and receiving collection gear and data sheets, SAV Watchers can head out on the water any time from the spring through fall to collect this important information.

Our SAV Watcher program has been so successful that the Chesapeake Bay Program incorporated the model into its Small-Scale SAV Restoration in Chesapeake Bay guidance document, released earlier this year.

MONITORING TOXIC ALGAL BLOOMS FOR HEALTH RISKS

Species of algae containing toxins harmful to humans and pets occur naturally in our rivers, but are exacerbated by abnormally warm water temperatures and excess nutrients from pollution.

As climate change continues to impact our region, we are seeing these blooms become larger, more toxic, and longer-lasting. (continued)



Planned Giving

"We live, boat, kayak, and fish on the Sassafras River. Finding rejuvenation in nature, we feel it's important to contribute to restoring and maintaining the health of our wonderful watershed. As scientists, we see ShoreRivers as offering the perfect opportunity to put resources to work, ensuring sound science informs decision-making to improve the health of our rivers and ultimately the Bay."

*Ted Carski and Janet Ruhl,
Heritage Society members*

The ShoreRivers Heritage Society recognizes special benefactors who make a commitment to the future of clean water in their estate plan. Join and learn more at ShoreRivers.org/ways-to-give.

The Sassafras River in particular has experienced extreme blooms over the last several years, which were actively monitored and communicated to the public by ShoreRivers, Maryland Department of Natural Resources, Maryland Department of the Environment, and local health departments.

Early this year ShoreRivers received funding to expand our toxic algal bloom monitoring program, specifically **working with local pet owners and veterinarians to raise awareness about the causes of these blooms and how they can negatively affect human and animal health.** With this funding we will also purchase equipment to monitor conditions that are favorable to blooms, allowing us to be proactive in our response, and give us the ability to actively monitor blooms in real-time.

SWIMTESTERS: MONITORING BACTERIA LEVELS FOR HEALTH RISKS

ShoreRivers has been monitoring bacteria levels at popular swimming sites since 2017, to provide the public with timely information on potential human and animal health risks so people can make informed decisions about where and whether to swim.

SwimTesters is the newest iteration of this program: activating a team of citizen scientists to conduct weekly sampling throughout the summer at an increased number of sites across our region.

Now, water lovers from the Sassafras to the Choptank can access information on bacteria levels at 36 popular recreation sites on SwimGuide.org and on ShoreRivers' social media platforms. Our two in-house bacteria processing labs ensure quick turn-around time; samples are taken on Thursdays and results posted on Fridays, in time for weekend water activities. We test every week between Memorial Day and Labor Day. Site sponsors and other generous donors underwrite this annual program (\$640 covers one site per season). **In 2021, our sample sites were viewed over 64,000 times on Swim Guide!**

In 2021, the Maryland Department of the Environment asked ShoreRivers to present about our bacteria monitoring program at a conference for researchers, scientists, and government agencies involved in human health initiatives.

As a result, our program is currently being incorporated into a statewide guidance document for bacteria monitoring.

Learn more about the health of your river at this year's STATE OF THE RIVER events:

Wednesday, April 20

Chesapeake Bay Maritime Museum 5:30–7:00 pm
featuring your Choptank & Miles-Wye Riverkeepers

Wednesday, April 27

The Packing House 5:30–7:00 pm
featuring your Choptank Riverkeeper

Thursday, May 5

Washington College's Hodson Hall 5:30–7:00 pm
featuring your Chester Riverkeeper

Friday, May 13

Betterton Volunteer Fire Hall 5:30–7:00 pm
featuring your Sassafras Riverkeeper

Thursday, May 19

Chesapeake Bay Environmental Center 5:30–7:00 pm
featuring your Miles-Wye & Chester Riverkeepers

Each event is free and open to the public; light fare will be served. Find more at shorerivers.org/events.

SHORIVERS SWIMTESTER SITES



Visit shorerivers.org/swim for the latest results, safe swimming tips, and more information on our bacteria monitoring program.

- 95% or More** of samples passed water quality standards in 2021
- 60-95%** of samples passed water quality standards in 2021
- 60% or Fewer** of samples passed water quality standards in 2021

“Building this baseline dataset is so important. Once we establish the sites with chronically high bacteria levels, we can use DNA source tracking to identify the cause. Once we know where the bacteria is coming from—whether it’s leaking sewer lines, failing septic systems, over-application of fertilizer, or people not picking up after their pets—we can start implementing real solutions.” **Matt Pluta, Choptank Riverkeeper**

REFLECTING ON THE CLEAN WATER ACT'S HISTORY AND PURPOSE

By *Tim Junkin, founder and former executive director of Midshore Riverkeeper Conservancy*



In 1972, as a college student, I was already aware of the crisis of pollution facing our nation, particularly in regard to clean water. I grew up in Bethesda, Maryland, and often walked or biked along the C&O Canal adjacent to the Potomac River. The river was a health hazard and dead or dying in many respects. ***During the sultry days of summer, my friends and I so wanted to cool off in the river, but signs were posted everywhere to keep out of the fetid water.*** Bloating fish washed up with the tide. The District of Columbia's sewer pipelines, as one example, discharged 15 million gallons of raw waste into the river every day. Upriver, power plants used the river as a private dump. Waterways around the country were similarly in dire straits. The Great Lakes were dying, the Detroit River was full of mercury, an oil slick on the Cuyahoga River in Ohio had caught fire and burned for 30 minutes. The Hudson River in New York would regularly change colors depending on the paint being used by auto manufacturing plants. And the Chesapeake Bay was on life-support.

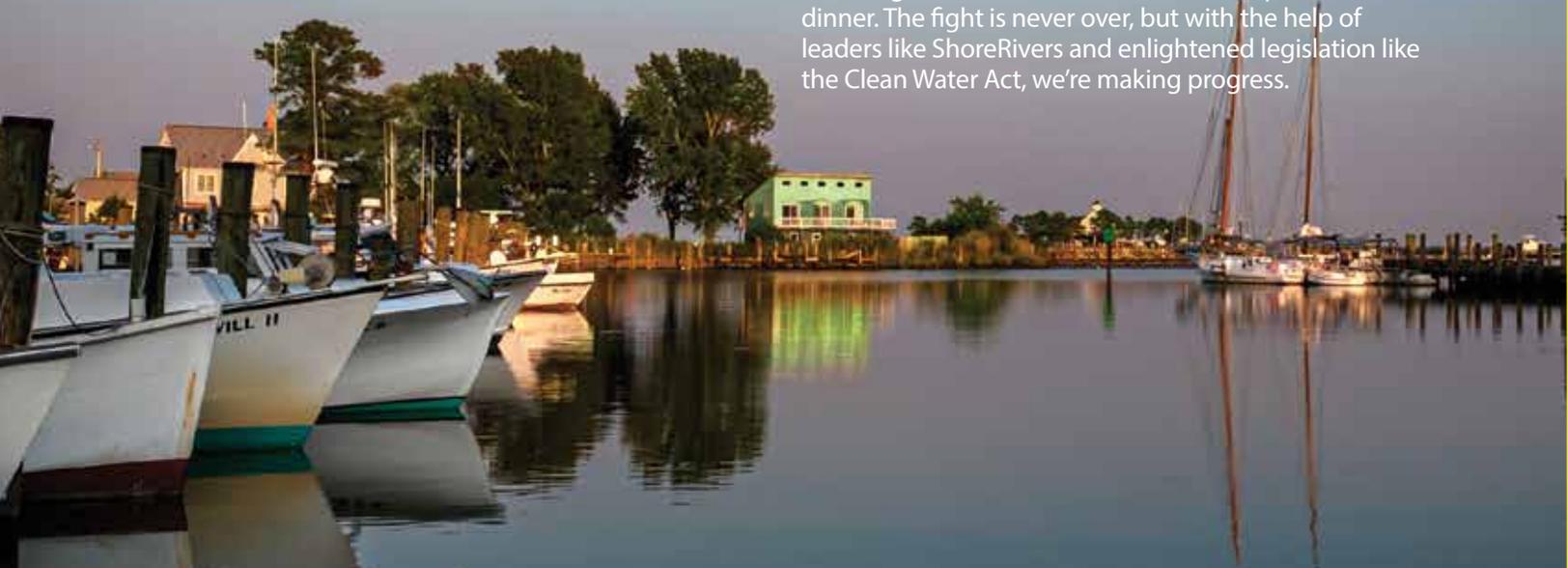
In October of that year, after months of wrangling, Republicans and Democrats from the House and Senate came together and passed the modern-day version of the Clean Water Act.

It was a vitally important day for our country—and one that launched an environmental movement.

The Clean Water Act, among other things, requires those wishing to discharge into our waterways to obtain a permit, one that takes into consideration the health of the receiving waterway, and then prescribes the amount of discharge allowed and the prior treatment of the discharge required. It requires regular filings of the discharges and allows for inspection and testing. ***Importantly, the Act also allows citizens to sue to enforce its provisions and hold illegal polluters accountable.*** Citizens empowered to act to protect their rivers, their portion of our homeland... What could be more important?

This citizen suit provision is one of the foundational tools of the Waterkeeper movement, and of the incentives that prompted me in 2008 to found Midshore Riverkeeper Conservancy in Easton, one of the predecessor organizations of ShoreRivers. I had the good fortune to hire many of the young, inspired—and inspiring—professionals who still work there. And I am delighted my daughter serves as the director. They are kindred spirits with the more than 300 Waterkeepers now doing similar impassioned work around the world. The work of ShoreRivers provides tremendous benefit to our Eastern Shore communities, and I am proud and gratified beyond measure to have played a role in its development.

I recently visited the Potomac River. I swam off a beach and caught, fried, and ate some delicious perch for dinner. The fight is never over, but with the help of leaders like ShoreRivers and enlightened legislation like the Clean Water Act, we're making progress.





RESTORING the Wye River at Chesapeake College

Clean Water Act, Section 303 Impaired List

Twenty-six acres of agricultural land converted to natural lands. The white tubes are tree tubes, Route 50 is on the left and Chesapeake College is in the background. In 20 years this will be a lush, secluded wetland complex surrounded by forest.

Section 303 of the Clean Water Act requires states to identify impaired waterways and develop appropriate pollution reduction strategies. All of the waterways in the geographical area ShoreRivers serves are listed as impaired under this section, providing incentive for agencies and leverage for organizations like ours to put restoration projects in the ground.

The Chesapeake Bay Total Maximum Daily Load initiative was launched in 2010 as a Bay-wide strategy to achieve healthier rivers and move waterways off the Section 303 list. The cleanup plan prescribes nutrient and sediment limits for the Bay and its tributaries. All strategies to meet these pollution limits must be in place by 2025.

As the deadline approaches, collaboration between all levels of government and watershed protection groups is more essential than ever. A prime example of successful collaboration is the ongoing restoration work at Chesapeake College in Wye Mills.

Chesapeake College sits on an ecologically sensitive parcel of land at the headwaters of the Wye East River and receives runoff from the large, developed footprint of the campus as well as the surrounding agricultural fields. ***The Wye East River and Wye River mainstem are identified under Section 303 as***

impaired for sediments, nutrients, and fecal coliform. Additionally, the Upper Wye East tributary has the poorest water quality of all the locations sampled by ShoreRivers, making it a priority watershed for restoration work.

Beginning in 2013, ShoreRivers has partnered with the college, local counties, and the state to construct 19 projects on campus, including a regenerative “step pool” stormwater conveyance, a wetland, multiple bioretention ponds and bioswales, acres of wildflower meadows and trees, and switchgrass buffers around agricultural fields.

The most recent project converted 26 acres of college-owned agricultural field along Route 50 to a series of wetland pools and native plantings—take a look the next time you drive by as the site is visible from the highway. A mulch path through the wetlands offers students and faculty a nature reprieve, and the forests, ponds, and wetland will create habitat for wildlife. All of these projects slow and filter runoff from impervious surfaces and agricultural fields, thereby reducing nutrient and sediment pollution.

Through its Section 303 impaired list framework, the Clean Water Act incentivizes partnerships like this to reach our shared goal of reducing pollution to our rivers.

HOLDING POLLUTERS ACCOUNTABLE: ShoreRivers Confronts Valley Proteins and the Department of the Environment

Clean Water Act, Citizen Suit Provision



Aerial view of the Valley Proteins rendering plant shows the close proximity of storage lagoons, raw storage sites, and discharge outfalls to natural ponds and the Transquaking River.

Over the last year, ShoreRivers utilized the citizen suit provision of the Clean Water Act to address years of ongoing water pollution violations at the Valley Proteins rendering facility near Cambridge, Maryland. Legal claims of illegal pollution and violation of a National Pollutant Discharge Elimination System (NPDES) permit have been filed in federal court after **evidence provided by ShoreRivers led the Maryland Department of Environment (MDE) to conduct a series of inspections uncovering extensive violations at the company's Linkwood facility.**

Valley Proteins processes nearly four million pounds of chicken byproducts a day, and has a NPDES permit to discharge treated wastewater to the Transquaking River. The plant's discharge permit expired in 2006; however,

MDE has administratively continued the permit for the past 15 years as a "zombie permit," functioning on outdated technology and permit limits. To make matters worse, Valley Proteins has significantly violated even this NPDES permit for at least five years with little to no pushback from MDE.

Years of MDE failing to address the Clean Water Act violations at Valley Proteins led ShoreRivers to seek counsel from Chesapeake Legal Alliance in April 2021, and to serve the facility a notice of intent to sue—the first step of filing a claim under the Act.

Parameter	Valley Proteins' Discharge (measured by MDE in December)	Acceptable Threshold (according to the plant's discharge permit)
pH	2.61 (acidic)	6.0 – 9.0
Fecal coliform	1,119 MPN/100 ml (one sample)	200 MPN/100 ml (monthly average)
Daily maximum biological oxygen demand	243 mg/l	180 mg/l
Dissolved oxygen	0.27 mg/l	5 mg/l (minimum)

Over the next eight months, ShoreRivers attempted to work in good faith with MDE to resolve the issues, only to learn that the illegal discharges at Valley Proteins were far from under control. In December 2021, ShoreRivers provided evidence to MDE of untreated wastewater and industrial sludge being actively discharged to the Transquaking River. Lab results and data from MDE's inspection reports showed that the Valley Proteins discharge grossly violated permitted levels (see table). ***The readings indicated pollution levels considered toxic to aquatic life and human health, leading MDE to issue a Consent Order requiring Valley Proteins to cease discharge until permit limits could be met. It took 70 days for the plant to resolve their pollution problems before being allowed to discharge again on February 28, 2022.***

To preserve our claims in federal court and ensure accountability for both MDE and Valley Proteins, ShoreRivers filed a federal complaint in the US District Court for the District of Maryland for the violations noted last April and issued a second notice of intent to sue for the more recent violations. Shortly after our filings, the Maryland Attorney General filed a state complaint against Valley Proteins citing 598 days of violations of their NPDES permit with the potential of a \$35,000 fine for each day. Represented by Chesapeake Legal Alliance, ShoreRivers has intervened in the state court filing under a new state law that passed in 2021. This will be the first time an organization has had the ability to intervene in a state water pollution case to ensure the effects of the pollution are adequately addressed in the court proceeding.

This case exemplifies how Waterkeepers can use the Clean Water Act's citizen suit provisions to ensure permits are properly enforced and our waterways and health don't bear the burden of polluting operators. ShoreRivers will remain vigilant through this litigation to stop the pollution for good.

SHORERIVERS ARE YOUR RIVERS: CIVIC ENGAGEMENT FOR WATER QUALITY

Engaging in government and political processes for the greater good—what we’re referring to as *civic engagement*—is a core tenet of the Waterkeeper movement and central to ShoreRivers’ mission. Each of our Riverkeepers is the voice for his or her waterway at every level of government. By adding your voice to ours, we can amplify from four to thousands. ***Small investments of your time in the public process can add up to significant change for the better.***

In 2021, your civic engagement in response to our citizen action alerts meant that our voices were heard:

At the hearing for the Valley Proteins rendering plant’s discharge permit renewal, 75 constituents spoke in opposition of the facility increasing its volume of discharge to the Transquaking River.

At the hearing for the Trappe East development’s groundwater discharge permit, over 100 people spoke in opposition and a staggering 3,000 submitted written comments to the state. Because of our action, MDE is now required to hold a new public hearing on the updated discharge permit—another opportunity for the public to demand better water quality protection.

In responding to the Queen Anne’s County comprehensive plan revision, over 130 residents signed their name in support of our comments, which advocated for the prioritization of open space and public access. Our comments were more persuasive with this outpouring of public support, and many of our recommendations are in the final plan adopted in March.

Thank you to everyone who added a voice to these efforts.

No matter your experience or background, you have something valuable to contribute to the conversation. The more we can unify the voices of diverse stakeholders across our watersheds, the more successful we will be in our fight for clean water. Whether we are taking a stand against polluters, advocating for increased protections in our land use policies, or defending the right for all community members to access waterways, showing up to the hearing room, a volunteer event, or the ballot box can make a difference in the outcomes for our rivers. Above all, be patient, be persistent, and stay positive—together our voices have the power to restore our rivers.

“Choosing to donate to ShoreRivers through an automatic recurring gift was a simple way to ensure our continued support toward a healthier Wye River. We support the work of ShoreRivers because we cherish our experiences on the Wye River and know our donations will help to improve the water quality so wildlife can thrive and families can safely recreate now and into the future.”

The Tom and Elissa Davidson Family



The Davidson Family and friends pose in front of the Bennett Point Lighthouse after a brisk walk along the Wye River this winter. Set your automatic recurring gift like the Davidsons did by visiting shorerivers.org/donate and clicking the checkbox at the top of the page.



YOUTH TAKE ACTION ON THE ENVIRONMENT TO BETTER THEIR FUTURES

By Julia Buchanan, student leader for the 2022 Upper Shore Youth Environmental Action Summit



Now, we're ready to make the change we want to see.

73,000,000

Americans are under the age of 18 and can't vote, leaving the voices of many unheard. Today's youth have a unique perspective that is often overlooked because people associate lack of years on this earth with lack of knowledge about the environment.

"As youth, we are the ones who will soon fill elected office positions. Therefore, it's more important than ever to educate the ones who will make the most impact in the future. The environmental challenges are only going to worsen as time goes on, so it's so important that change is made before we reach that point," wrote Addie Nicholson, a junior at Kent Island High School.

Addie, along with Jessica Hammond and myself, were student leaders for the 2022 Upper Shore Youth Environmental Action Summit, co-hosted in March by ShoreRivers and the Washington College Center for Environment & Society.

This summit was an opportunity for students to get advice from environmental action experts, network with professionals in green career fields, and learn more about student environmental action from their peers.

Most young people these days have grown up learning about and loving the environment. Ever since I was a kid, my parents would get me outside to enjoy nature as much as possible. They would take me hiking or kayaking in the

waterways near our home. This introduced me to the serenity nature can offer, which made me want to preserve it as much as possible.

Children and teenagers have been aware of the effects of climate change and pollution from a young age and are trying their best to create change around them for a cleaner future. Summit student leader Jessica Hammond partners with local organizations to create this change: "My passion for the environment influences my lifestyle by urging me to look for more sustainable ways for my family to live. It also leads me to work with organizations such as ShoreRivers and Horn Point Lab to find solutions to the issues global warming is causing."

Events and conversations like the annual Upper Shore Youth Summit are crucial to supporting creative solutions from students and expanding our abilities to effect change in the places we grow up. ***What makes today's youth perspective so unique is that we've been conscious of the effect our actions have on the environment ever since we were kids.*** We all learned about climate change from a young age, and have seen its effects firsthand all our lives. ***Now, we're ready to make the change we want to see.***

You can empower and uplift youth voices in many ways. Educate yourself about local youth-led environmental action groups, connect young people in your life with green career opportunities, and get students outside to strengthen their passion for the environment. As summit leader Addie Nicholson says, "... the youth are the most important age group when it comes to permanent change, as we are the future." Seventy-three million Americans will soon inherit waterways across the country; let our voices shine.



Thank you to the sponsors of the Upper Shore Youth Environmental Action Summit: The Keith Campbell Foundation for the Environment, the Curtis & Edith Munson Foundation, Chesapeake Bay Trust, and IKEA.

WORKING WITH MINARY'S DREAM ALLIANCE

FOR EQUITABLE ACCESS

By Amy Narimatsu, Community Engagement Coordinator



ShoreRivers' mission of protecting and restoring Eastern Shore waterways cannot be achieved alone. Collaboration with community partners that share similar values is essential in making

sure our waters are swimmable, fishable, and accessible. ShoreRivers' partnership with Minary's Dream Alliance embodies the unity and restorative power that comes from these collaborations.

Minary's Dream Alliance is a visionary new nonprofit organization with a mission to transform the lives of youth, families, and communities through education, resource development, and community engagement.

Programs like Minary's Dream and ShoreRivers share a strong commitment to three principles that are imperative to both organizations' missions: restoration, access, and education.

In the past year, Minary's Dream Alliance and ShoreRivers have begun collaborating on a plan to inspire, empower, and educate young environmental stewards. ShoreRivers has been honored to stand alongside the Alliance to secure its purchase of the Chestertown American Legion building, which will serve as a safe place for all community members and a nexus of services to meet urgent needs in Kent County and beyond, including nutrition, behavioral health, and youth empowerment.



Staff from ShoreRivers and Minary's Dream Alliance celebrate the purchase of the American Legion property.

Doncella Wilson, one of the co-founders of Minary's Dream, is a licensed social worker and gifted practitioner of trauma-informed care. Doncella explains that for her, **the dream is "to provide a space for youth and families to come together and be able to feel safe, respected, and loved in one place."** This space, rooted in restorative energy and positivity, "will

completely build collaborations. So when we talk about access and community engagement, we want this space where everyone feels safe to come; we're intentional about our outreach to African American communities with that access."

Many communities of color, particularly African American communities, do not have equitable access to swimming, fishing, kayaking, boating, or any of the



The beautiful Minary's Dream Alliance property in Chestertown has tremendous potential for healing communities and waterways. Existing lawn will be replaced with native gardens and meadows to improve water quality and add to the natural aesthetic of the property. Photo by Sam Shoge

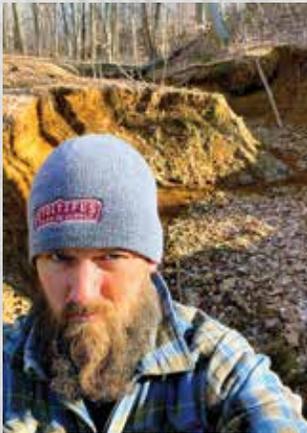
other meaningful interactions that our waterways have to offer. **The purchase of the American Legion property, spanning eight acres of waterfront along Morgan Creek and the Chester River, will expand equitable water access.** Equitable access to our waterways offers not just the opportunity to enjoy a shared resource, but also the potential for everyone, "from our little people to our seasoned people," according to Doncella, to grow a deep love for and appreciation of our rivers that every individual deserves.

Minary's Dream celebrated its purchase of the American Legion property on February 14 of this year—Valentine's Day. The celebration included a libation ceremony, a ritual pouring of liquid. Grand Ancestor Moonyene Jackson-Amis selected water for this particular blessing, a beautifully symbolic choice. "The pouring of libation is a cultural and spiritual element of my life and the lives of many Africans and many African Americans. Remember that we stand on the shoulders of so many people." Jackson-Amis called on the power of water as the great connector that covers over 70% of the Earth and makes up over 60% of the human body. While it is easy to feel isolated and even divided in these turbulent times, the Grand Ancestor reminded those gathered, **"Water is our common element."**

The story of partnership between ShoreRivers and Minary's Dream Alliance serves as a reminder that **community engagement and collaboration are essential elements in not just the work toward achieving clean water, but the work toward equity, justice, resilience, and stewardship.** Forging partnerships like these will strengthen our communities and protect our shared natural resources—our precious common elements.

8,000 FEET OF INNOVATIVE STREAM RESTORATION IN THE SASSAFRAS WATERSHED

By Josh Thompson, Restoration Specialist



ShoreRivers utilizes innovative stream restoration approaches that go beyond pollution reduction goals of nutrient processing and sediment storage: **we emphasize designs that promote quality in-stream and floodplain habitat, ecological uplift, and biodiversity—a fully restored, functional, and beautiful ecosystem.**

Connectivity of the floodplain, along with restoration of groundwater hydrology, seep habitat, and vernal pool wetlands are all critical elements we factor into our designs and prioritize throughout the construction process. Our projects use natural in-stream structures to promote healthy riffle pool habitat for macroinvertebrates and improve fish passage and habitat.

ShoreRivers recently completed two large projects on an unnamed tributary of the SassafRAS River with historically high nutrient concentrations. Both projects were designed and installed by Ecotone Ecological Restoration with funding from Chesapeake Bay Trust and Chesapeake and Atlantic Coastal Bays Trust Fund.

Collectively, the two projects restored a staggering 8,000 feet of perennial stream beginning at a headwaters agricultural ditch and extending to the main stem of the SassafRAS River. The projects slow and filter water draining from 1,115 acres of agricultural land and impervious roadways.

Restoring this entire stretch of stream improves connectivity and fish passage, promotes higher dissolved oxygen levels and lower water temperatures, and addresses several invasive species that were prevalent in the floodplain.

The first project restored 3,600 linear feet of headwater stream receiving agricultural runoff from 426 acres,

including a large concentrated animal feeding operation, row crop agriculture fertilized with manure, and 67 acres of impervious roadway. The second project is located downstream of the first and drains a subwatershed of 689 acres of agricultural cropland, including 43 acres of impervious roadway.

Pre-construction, the stream offered few ecological services or habitat opportunities. The streambed had been incised and disconnected from the surrounding floodplain during typical rain events, and the stream banks were actively eroding with exposed root systems and sparse vegetation.

The upper ditched reach was restored to a wide, coastal plain system fully connected to groundwater via seeps. Woody debris was incorporated throughout the system to prevent channelizing, and clay cutoff trenches were installed to prevent downward erosion.

The upper reach transitions into a single channel design, with cut material moved downstream to raise and realign the channel to alleviate bank pressure. Cobble was installed on all riffles to improve macroinvertebrate habitat and stabilize the stream bed, and woody debris and stumps were installed to protect bare slopes. Log cross vanes provide additional habitat and protect the stream from future down-cutting. Adding roughness to the floodplain will break up stormflow energy while maximizing wetlands, seep habitat, and groundwater connection. The site was planted with over 2,400 native trees, shrubs, and grasses to stabilize the system.

This project is being actively monitored by the Maryland Department of Natural Resources for its efficacy in reducing nutrients and sediments to the Chesapeake Bay. The state will use results from this study to inform decisions on funding for future stream restoration practices.

Pollution prevented annually: 3,825 pounds of nitrogen, 868 pounds of phosphorus, and 1,197 tons of sediment.





A waterfront home is surrounded by native meadows and secret trails, a perfect River-Friendly Yard that protects the river, provides wildlife habitat, and invites you outside to wander.

MAKE A DIFFERENCE for the Environment in Your Yard



By Mairin Corasaniti, Education & Outreach Coordinator

We are all part of a watershed. Think about a nearby tributary, the river it flows into, then the bay, and ultimately, the ocean. As recipients of the bounty of these watersheds, we should ask ourselves: "What can I do to protect my waterways?" You can make a difference

right in your own yard or any shared community space with a "River-Friendly Yard" that mimics the natural environment, benefitting water quality, native species, and our local ecosystem.

When it comes to your lawn...

Reconsider turf grass. Despite its popularity, turf grass offers few benefits to your yard and to the larger ecosystem, especially when compared to alterNATIVES (get it?). Turf lawns' short root structure cannot absorb excess nutrients or adequately stabilize soil.

Plant natives. Planting even a small bed of native plants in your yard can have an impact. Our River-Friendly Yards team suggests some favorites that work year-round:

Zack Kelleher: American witch hazel (*Hamamelis virginiana*). This medicinal shrub produces beautiful yellow flowers in the late fall through mid-winter, and is known in witchcraft lore for being made into water-locating divining rods.

Kim Righi: American Wild Plum (*Prunus americana*). A native, under-story fruiting tree, the wild plum sports white blooms through the spring and juicy fruits in the late summer, supporting birds, over 400 types of caterpillars, and humans!

Darran White Tilghman: Green-and-Gold (*Chrysogonum virginianum*) grows actively throughout much of the year, particularly in the summer. It is a fantastic groundcover for a shady garden, and, unlike many other plants, thrives on neglect.

Mairin Corasaniti: New England Aster (*Symphyotrichum novae-angliae*) is, for many of us, a favorite fall staple. It is beloved by many pollinator friends, including birds, bees, and the Pearl crescent butterfly.

Keep dead plants and leaves. Native plants continue to provide for us even after they go dormant in the winter. Keep the seed heads on your plants and rake fallen leaves into garden beds for the winter. Seeds feed birds and other animals during winter scarcity, dead or dormant grasses and underbrush provide warm shelter in the winter for birds and mammals, and fallen leaves are critical nurseries for insects.

Wherever you are, you can be an ally of our rivers by being a steward of the land, whether it's your own yard or a community property.

Visit our website for more native plant suggestions, ShoreRivers.org/river-friendly-yards.



SHORE RIVERS

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