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Riverkeeper report leads to NCDEQ fine page 8 **SWAMPED:** Neuse Riverkeeper Samantha Krop guides her kayak through Nahunta Swamp to take samples at the site of last year's biogas spill – page 9

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Sound Rivers' Quarterly Newsletter | Volume 9, No. 1 | Spring 2023

# Sound Rivers jumpstarts 2023 with growth and renewal

pring certainly came early this year! While fall is still my favorite season, there is something rejuvenating about springtime. Watching nature come alive again stirs something in me; it is a wonderful chance for renewal in all that we do. At Sound Rivers, we have renewed our passion for the work we are called to



do – and we are growing to meet the coming challenges!

I am so excited to welcome our new staff, Emily, Lauren, Jay and Taylor! On page 2, you can learn more about them, their roles within Sound Rivers and why they are excited to get started with an organization making great strides for clean water in eastern North

"At Sound Rivers, we have renewed our passion for the work we are called to do – and we are growing to meet the coming challenges!"

Carolina. They are joining a dedicated team who are all doing tremendous work around the region. In this issue of Currents, you will find a snapshot of their work to advocate for strong enforcement of our environmental laws, building nature-based stormwater infrastructure with numerous public partners, engaging with the public for cleaner urban streams and so much more.

It takes a huge effort to make gains for our environment and public health, and you're an integral part of the story. This month, generous supporters are matching your gifts up to \$30,000! Any gift you make in April will be doubled, and you can help us reach our goal of \$60,000 by making a special contribution, renewing your membership, beginning a sustaining monthly gift or gifting a membership to a loved one. More details can be found at soundrivers.org/donate.

Thank you for all you do for your waterways and communities. I hope you all find joy in new things this spring!

Sincerely,

Executive Director, Sound Rivers

## A BIGGER, Better SOUND RIVERS

#### Sound Rivers is growing - we've added four new, full-time staff members!

"We are so excited to welcome Lauren, Jay, Emily and Taylor to Sound Rivers – and I am grateful to our members and supporters who are allowing us to grow and bring in this wonderful new talent," said Heather Deck, Sound Rivers' executive director. "This year, you will see their impact as we expand our programs, working every day for cleaner and healthier Tar-Pamlico and Neuse rivers."

Our new staff members will be finding desk space in all three Sound Rivers' offices: Water-Quality Specialist Taylor Register and Volunteer Coordinator Emily Fritz are sharing the New Bern office; Office Manager Lauren Rowe is based in Washington; and Development Coordinator Jay Potter is sharing the Raleigh office space with Neuse Riverkeeper Samantha Krop (who continues to split her time between New Bern and Raleigh).

We are excited to have them all on board and delighted to introduce you to Sound Rivers' new, bigger and better team!

#### Taylor Register WATER-QUALITY SPECIALIST

Taylor Register grew up in Craven County and spent much of her free time on and around the Neuse River, whether it was fishing, kayaking or discovering the wildlife.

"Spending those formative years exploring our waterways really just fueled my curiosity and made me care so much about the lasting impact we have on our environment and everything that lives within it," Taylor said.

She parlayed her passion for science and protecting eastern North Carolina's unique environment into a career where she can make a difference – right here at home.

"Finding this unique opportunity in my hometown with an organization whose values and goals reflect my own just felt like it was meant to be," Taylor said.

Taylor said she is most looking forward to using her

science background to make an impact, investigating and addressing issues that affect the health of our waterways and the communities that depend on them.

"The rivers that run through our community are a vital natural resource, and so many different people and

organisms rely on them to be clean and healthy in order to thrive," Taylor said. "I am looking forward to working with an organization whose members are equally as passionate about protecting our rivers for current and future generations to enjoy."

Taylor can be reached at taylor@soundrivers.org.

#### Jay Potter, development coordinator

Jay comes to Sound Rivers from a background in social work, but what drew him to Sound Rivers was its mission: helping people and communities by protecting the water we drink, work and play in both healthy and clean. Jay will work side-by-side with Sound Rivers Executive Director Heather Deck, brainstorming ways to extend Sound Rivers' reach and support.

"We may not always think that keeping an organization financially

healthy is much more than salesmanship, but, in reality, it is the foundation from which change grows. As I've heard ... fundraising is love. It's love for the cause, the people affected and the community,' Jay said.

Jay is a recent graduate of Fayetteville State University and resides in Fayetteville. He said he is very much looking forward to getting to know and working for the people of Sound Rivers. "(Your) passion for the health of our local rivers allows the Riverkeepers to do their job, and the organization as a whole to report their findings to the public, no matter what. In a time where people would rather shield their eyes and look the other way, you have instead chosen to look directly into the sun and say, 'This needs to change.' ... Your dedication to the wellbeing of your fellows genuinely warms my heart," Jay said.

Jay can be reached at jay@soundrivrs.org.



### Lauren Rowe, office manager

In her role as office manager of Sound Rivers, Lauren Rowe is embarking on a new journey by entering the nonprofit world.

Lauren has dedicated the last 15 years of her work life to the healthcare field, specifically mental health, with the last seven of those working as an office administrator. A resident of Washington, Lauren said she was drawn to the position at Sound Rivers because of the opportunity it affords: working in a dynamic, team environment and making a positive, environmental impact at home in Washington, on the banks of the Pamlico River.

She said she's looking forward to tackling the challenges her new role will bring (which, if we're honest, will be many, such as wrangling the rest of the staff to keep up with receipts and time sheets and grant reconciliation and mileage and ...).

"I've never worked in a nonprofit, so I thought that would be a new challenge for me and allow me to grow professionally. I'm excited to expound upon my current knowledge base and create a new work experience," Lauren said.

Lauren can be reached at lauren@soundrivers.org.



"The rivers that run through our community are **a vital natural resource**, and so many different people and organisms rely on them to be clean and healthy in order to thrive. I am looking forward to working with an organization whose members are equally as passionate about **protecting our rivers** for current and future generations to enjoy."



### Emily Fritz, VOLUNTEER COORDINATOR

Emily Fritz is originally from Michigan, but has made her home in eastern North Carolina for the past several years. Emily has a degree in Natural Resource Management and Biology and most recently served as the environmental educator at The Don Lee Center in Arapahoe.

Emily grew up on the water and doesn't remember a time when she wasn't passionate about conservation.

"Since moving to North Carolina from Michigan, I have fallen in love with the beautiful ecosystems and communities of eastern North Carolina. I have spent years in the environmental education field, and the volunteer coordinator position is the perfect opportunity to share my love of nature and education," Emily said.

Emily said she's excited to get outside and carry on the impactful work of Sound Rivers with the help of some good volunteers.

Emily can be reached at emily@soundrivers.org.



## **10 YEARS DOWN THE RIVER**

ittle has changed in Blounts Creek over the past decade. Besides a few more waterfront homes, it's as peaceful and quiet as ever; the fishing is still good and the wildlife still abundant.

But that could change, as this is the year the battle to Save Blounts Creek will come to a conclusion. The North Carolina Supreme Court has scheduled the case to be heard on April 27, after a three-year wait.

But the story started much earlier – 10 years earlier.

It was 2013 when the Southern Environmental Law Center filed the original case on behalf of Sound Rivers and N.C. Coastal Federation, arguing that a wa-

ter-pollution permit issued by the North Carolina Department of Environmental Quality failed to protect Blounts Creek. The permit would have allowed a Martin Marietta Materials' limestone mine to discharge up to 12 million gallons of fresh water per day into the popular fishing creek and tributary of the Pamlico River in Beaufort County. It was a prospect that would have permanently changed the creek's flow, its pH and its diversity of fish and high-quality fish habitats.

That permit was voided by a Superior Court judge in one of the many hearings over the past decade as the case bounced between the Office of Administrative Hearings and Superior Court multiple times. The permit

was reinstated again when the N.C. Court of Appeals overturned the lower court's ruling. Now, it's expired altogether.

In July 2020, SELC, on behalf of Sound Rivers and other stakeholders, asked the N.C. Supreme Court to review the N.C. Court of Appeals' decision to uphold the permit. Now, that day has come.

"Blounts Creek is a special place that is treasured by local residents and visitors alike," said Heather Deck, Sound Rivers' executive director." I am looking forward to our day in court and believe the North Carolina legal system will ultimately decide to protect the integrity of our state's waters and protect Blounts Creek for today's residents and future generations."

Protecting the creek has always been the primary purpose of the challenge. Before NCDEO issued the permit to Martin Marietta, state wildlife agencies and the Environmental Protection Agency objected to the company's plan to discharge all water used in the mining process into the creek. They, Sound Rivers, and others encouraged the company to come up with another option, one less harmful to the thriving fish populations in Blounts Creek.

"Generations in Beaufort County have grown up fishing and boating on Blounts Creek," Heather said. "It's that natural diversity of life that so many people cherish and want to protect."

Throughout the case, Martin Marietta has argued that Sound Rivers and N.C. Coastal Federation were not permitted to file this case in the first place. Both Superior Courts and a unanimous panel of the N.C. Court of Appeals have disagreed and gave the conservation groups the green light to pursue the case.

When they finally appear before the N.C. Supreme Court, SELC attorneys will be arguing that Sound Rivers, N.C. Coastal Federation and others can challenge permits issued by the state.

"One of the things that Martin Marietta keeps trying to do is to restrict people's access to the courts," Heather said. "This is a broader battle for the public's right to challenge permits, because we know that government sometimes gets it wrong."

The lead-up to Swim Guide is looking a little different this year with the addition of intern William Wallace, who's been heading up preparation for the summer-long program, and Sound Rivers' Volunteer Coordinator Emily Fritz, who is lining up the roster of volunteers taking samples at popular recreational sites throughout the Neuse and Tar-Pamlico watersheds, and delivering them to be tested for the presence of E. coli bacteria in fresh water and enterococci in salt water. Previously, organizing the labor-intensive program fell to Program Director Clay Barber, with help from Sound Rivers' Riverkeepers. This year, the goal is to get the program working seamlessly, from its start on Memorial Day weekend to its end Labor Day weekend, according to Clay.

Volunteer recruitment is going on now. The upper part of both watersheds – the Raleigh, Rocky Mount areas – are in dire need of volunteers. Clay said volunteering for the Swim Guide program can happen in a couple of ways: taking samples, taking and delivering water samples, or just delivering those samples. "We have an increasing need for transportation – driving samples to a drop-off point – so even if you can't climb down a river bank and collect a sample, if you can drive a sample from one place to another, that would be awesome," Clay said. Water samples are taken every Thursday morning and are

# years of Swim Guide

ound Rivers is excited to be heading into a sixth year of Swim Guide and letting the public know where it's safe to swim, all summer long.

"Our priority this year is consistently sampling all of our existing sites and growing our volunteer network as much as we can," he said. "We're also going to be increasing the distribution of our results as much as we can."

delivered to drop-off locations within a time window that same day. If you've got Thursday mornings free this summer and are interested in volunteering, please reach out to Volunteer Coordinator Emily Fritz at emily@soundrivers.org.

## RAIN GARDENS LANDSCAPING FOR WATER QUALITY

reen stormwater infrastructure. It's a big name for a simple concept: nature-based solutions to water-guality issues. And many of them are so nature-based – and look so natural - vou won't even immediate-

ly recognize they serve a very important purpose. They're manmade, but they mimic natural processes to capture, filter and reduce stormwater. They are swales and roadside plantings, constructed wetlands, green roofs and rain gardens.

Over the past several years, Sound Rivers' Program Director Clay Barber has overseen the installation of rain gardens at campuses across the Neuse and Tar-Pamlico watersheds: at Beaufort County Community College, East Carolina University, Nash Community College, West Craven Middle School and more. Thousands of plants native to eastern North Carolina have been planted to help absorb

"They can be beautiful, with native plants and shrubs, and those will attract birds and bees and pollinators, and frogs and lizards. And now it's a hang-out."

> **Clay Barber** Sound Rivers Program Director

nutrients from polluted runoff as the water slowly filters into the ground. They decrease flooding, keep stormwater from reaching larger waterways, provide a habitat for wildlife and serve as really nice landscaping features.

"They can be beautiful, with native plants and shrubs, and those will attract birds and bees and pollinators, and frogs and lizards. And now it's a hang-out," Clay laughed.

Rain gardens work hard for clean water: a single rain garden can filter as much as 30,000 gallons of stormwater per year and is 30% more absorbent than a typical lawn.

"Rain gardens clean water and provide biological benefits to ecosystems – and you don't have to mow them," Clay said.

Through the American Rescue Plan and Bipartisan Infrastructure Law, it was recently announced that Sound Rivers will receive \$129,560 for stormwater assessment and green stormwater infrastructure planning at 12 Nash County schools. Clay said there will likely be many more rain gardens in his and Sound Rivers' future.



#### Plantings in these engineered landscapes:













Common Rush Juncus effusus

Eastern Wild Rye Elymus virginicus

Broomsedge

Pink Muhly Grass Andropogon glomeratus Muhlenbergia capillaris **Coastal Plain** Joe-Pye Weed

## Want to grow your own rain garden?

ot a low area in your lawn that takes a little while to dry out after a rain? That might be the ideal place for your own green stormwater

infrastructure project – a rain garden.

"You can explore when it rains, or right after, and find the low places that water already runs to and/or find a downspout that water comes out of," Clav said.

The next step would be to do a "perk" test, to make sure the soil will drain

water.

"So, you dig a 1-foot by 1-foot hole and fill it with water, and see how long it takes for the water to disappear," Clay said. "If the water is gone in two days, it's good. If it's not, you may want to find another location. You want it to drain, but not too auickly."

Clay said for most areas in the Neuse and Tar-Pamlico watersheds, the sandy soil of the Coastal Plain means constructing a rain garden will likely

be as simple as digging a depression, roughing up the soil so it's not compacted, topping with about 3 inches of mulch and planting some native species that will tolerate periods of saturated soil, yet also thrive under dry conditions. What types of plants are those? Sedum, daylily, black-eved Susan, Joe Pye weed, coreopsis and many more. But if you want an expert's opinion, Clay said it's available to anyone: "Reach out to your local Cooperative Extension and ask a master gardener."





Black-eyed Susan Rudbeckia hirta

Lizard's Tail Saururus cernuus



Cardinal Flower Lobelia cardinalis



Purple Coneflower Echinacea Purpurea

You can find all the details you need to build your own rain garden at soundrivers.org!



## **RIVERKEEPER REPORTS** on the TAR-PAMLICO

## **Maple Branch** investigation continues

ound Rivers' Riverkeepers rely on you being their eyes and ears on the Neuse and Tar-Pamlico. That's paid off two times for one small waterbody in recent months.

The first time was in January, when a number of people in Washington noticed something "off" about Maple Branch, a tributary of Runyon Creek that runs into the Pamlico River.

"I had received multiple reports from Washington residents with concerns about Maple Branch running very cloudy, all the way down to Runyon Creek," Pamlico-Tar Riverkeeper Jill Howell said. "I traced the issue more than a mile upstream to one of two properties that could be responsible."

Jill made a call to the North Carolina Department of Environmental Quality, which immediately sent out staff from the Division of Water Resources and the Division of Energy, Mineral and Land Resources. They issued two notices of violation to a sand-mining business on Whootentown Road.

In the first week of March, calls began coming in again about a cloudy Maple Branch. DEO and DEMLR returned to the property and found the cloudiness was caused by clay soils in an excavation pit seeping through a dike into a ditch, then on to Maple Branch - however, they could not determine how or exactly where the seepage was occurring.

"The owner and DEMLR decided the best approach moving forward was to stop excavation/mining at this pit and move on to the next section, and DEMLR also directed the owner to monitor the excavation and do any other measures that might remedy the problem. DEMLR emphasized to me that the owners are very cooperative and responsive to the agency's request and, as of last week, DEMLR did not have plans to re-issue a Notice of Violation," Jill said.

Jill, Water-Quality Specialist Taylor Register and Volunteer Coordinator Emily Fritz returned to the site to take water samples in three places in mid-March, the results of which were shared with DWR staff. Jill said Sound Rivers will continue to investigate until the Maple Branch runs into Runyon Creek, a tributary of the Pamlico River in Washington. Discharge into Maple Branch has been an regular issue in 2023.



issue is resolved.

"While we were pleased to see swift investigative and then enforcement action by DEMLR when this issue was initially brought to our attention back in January, what's concerning is the reoccurrence of turbid mining waters reaching Maple Branch, and the agency's decision to not re-issue a Notice of Violation at this time nor require prescriptive actions to fix the dike," Jill said. "This, to me, is a failure of our regulatory agency to adequately protect our water resources and, instead, places polluters above the public."

(Top right) Neuse Riverkeeper Samantha Krop wades into Nahunta Swamp to get a water sample near the spill site; (middle *right*) foam that spilled from the ruptured hog waste lagoon cover, comprised of decomposing dead hogs, expired deli meats and hog waste; (right) Pamlico-Tar Riverkeeper Jill Howell pulls up, via kayak, to the site of the spill that happened last August.



## on the NEUSE DEQ quiet on ongoing pollution

fine from the North Carolina Department of Environmental Quality has done little to address ongoing pollution at a hog operation in Wayne County. In December 2022, NCDEO issued an enforcement action and \$34,520 fine against White Oak Farms as a result of a May 2022 incident, in which a hog-waste lagoon cover used to harness biogas ruptured, releasing millions of cubic feet of nutrient- and bacteria-laden "foam." Some of that foam – a byproduct of the decomposition of hog waste, dead hogs, and food waste such as hot dogs and deli meat – spilled into nearby Nahunta Swamp. Neuse Riverkeeper Samantha Krop discovered the spill and ruptured biogas cover during a routine flyover in August, more than two months after the incident. With the exception of a small ad in a local paper, neither NCDEO nor the facility publicized the incident.

Though the fine was significant "The day after the enforcement What they found in the water was

in terms of what NCDEO normally issues in such cases and Sam and Pamlico-Tar Riverkeeper Jill Howell were assured any resulting pollution had been cleaned up, the Riverkeepers were concerned. Part of the concern came from the fact that it was mid-December, and they'd yet to see a single file from a request they'd made in August for all of NCDEO's records about the spill. action was taken and the fine issued, Sam and I went out to the swamp to collect samples of our own. DEQ has demonstrated from the very beginning – from failing to make the spill public to failing to turn over documents to us - that the case is closed, and the spill and any pollution resulting from it resolved," Jill said. "We wanted to confirm that for ourselves."

significant levels of bacteria, significant levels of nitrogen and swine DNA markers that indicate the bacteria and nitrogen were from the facility.

"The samples we took were right next to this property, and we tested upstream of the facility, as well. The majority of the upstream land is forested, undeveloped, with some agricultural land, and the samples taken upstream were all below any applicable water-quality standard and any level of concern," Jill said. "So, either the facility was not properly cleaned up in the aftermath of the spill and has been discharging pollution ever since, or there's a second issue at the facility. We don't know."

In late December, with assistance from attorneys with the Southern Environmental Law Center, the Riverkeepers sent a letter about their findings to DEQ's central office in Raleigh; recipients included the assistant secretary of DEO and the branch supervisor for the Division of Water Resources' Animal Feeding Operations Division. There has been no response, or acknowledgment of its receipt, Jill said. However, staff at DEQ's Washington office have indicated there will be further investigation – a good result, but one inhibited by a law passed by North Carolina's General Assembly in recent years that prohibits the investigating agency from divulging any information about that investigation unless and until a notice of violation is given.

"Because of the Aq-Gaq law, we will never know any more about this unless another Notice of Violation is issued," Jill said. "And the agency is considering a permit renewal – the facility's permit expired in August. ... We continue to be very frustrated by what I see as an inadequate and not-timely response to a pretty significant pollution event."

## **RIVERKEEPER REPORTS** continued.

(*Right*) Lick Creek at the confluence of a stream running from a construction site after a heavy rain; (far right) Neuse Riverkeeper Samantha Krop takes a turbidity reading after a storm.

## SELC lends support to Lick Creek development battle

he Southern Environmental Law Center has stepped in to lend support to the fight for Lick Creek, an impaired waterway in the upper part of the Neuse River watershed.

In February, SELC attorneys sent a letter to Durham City Council and county officials, reiterating a request for a moratorium on new development in Lick Creek until two proposed amendments are passed that would strengthen sediment and erosion controls and limit mass grading.

While Lick Creek is already considered an impaired waterway, it's the incessant development of land surrounding it that is putting it further at risk. The sedimentation problem caused by clear-cutting land for the construction of multiple housing developments has muddied the waters, as it can harm aquatic life 10

and keep heavy metals suspended in the water. A tributary of Falls Lake – a major drinking water source – the very fine Triassic soils in the area require more stringent erosion control measures than what's currently on the books.

"Since we last checked in, much has happened," said Neuse Riverkeeper Samantha Krop, referring to the January meeting in which the Durham City Council voted against another development proposal – this one, off Kemp Road – citing concerns to water quality in the creek. "This demonstrated that we are building momentum among city councilmembers, though the vote was not unanimous."

Since Sam took on the job with Sound Rivers a year ago, she's been working closely with community members in the Lick Creek area and urging Durham

City Council members to lay off approving more developments until better sedimentation and erosion control ordinances can be put in place. The work has paid off in that Sam was asked by Durham Mayor Elaine O'Neal and Councilwoman DeDreana Freeman – both big supporters of clean water advocacy and our work in Lick Creek – to make a presentation at the council's March planning session.

Sam has continued to take bi-weekly sediment pollution samples and turbidity readings at four sites in the watershed. Her testing was replicated, and results reinforced, by NCDEQ's more recent investigation taking samples and readings at the same sites.

"In summary, I would say that we are making progress with the sampling and grassroots advocacy, and the legal strategy is still unfolding," Sam said.



the layer of soil, which was then topped by sod.

### Wayne Community College bioswale restoration complete

ound Rivers' Program Director Clay Barber and crew members of Kris Bass Engineering and Backwater Environmental recently wrapped up the restoration of a key stormwater element at Wayne Community College.

A poorly draining bioswale is now back in working order, draining approximately three acres of lawn and impervious surfaces.

"A bio-swale (or water-quality swale) encourages treatment of stormwater runoff by spreading the water out and allowing it to fill up a little bit more, so that more water can soak into the ground before heading into the underground pipe network," Clay said. "The main goal is to treat

the water, but the added benefits are it's going to reduce flooding of the parking lot and reduce erosion."

Now, Clay is working with maintenance crews to get them up to speed on how the bioswale should be maintained.

"They're pretty easy to maintain, but you do have to have some good grass length for the base and side slopes of the swale, like four to six inches," Clay said. "The water is going to be flowing across this surface, so you want the grass to be able to stand up. If it's too short, the grass may die; if it's too long, it'll lay flat." The Wayne Community College bioswale is 1,700 linear square

feet, running parallel to one of

(Above left) The completed, restored bioswale is 1,700 linear feet of drainage for three acres of lawn and impervious surfaces at Wayne Community College. (Above right) Backwater Environmental Superintendent Chris Wheeler oversees the addition of

the campus' main roadways and draining a parking lot at one end.

The bioswale restoration project is funded by the 2020 Environmental Enhancement Grant, which will also be funding Clay's next project on the campus: a rainwater harvesting cistern to collect rainwater from the rooftops of one of two buildings – either the newly constructed Deacon Jones Automotive Center building or the maintenance building next door. The grant is also providing the means for stormwater assessments to be done at three Nash County schools: Rocky Mount High School, Southern Nash High School and Northern Nash High School.

**Sound Rivers, Inc.** P.O. Box 1854 Washington, NC 27889

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## A gift in April goes twice as far to support clean water!

For the past seven years, generous donors have come together to match all gifts made this month, which has meant SO much to our ability to grow and continue to **protect clean water**. We are honored again this year to be the recipient of challenge gifts from donors who are pledging **\$30,000** to match all April gifts from you, **our dedicated clean-water community.** All gifts in April are doubled, which means **your gift will go twice as far!** 

You can give at soundrivers.org/donate or return the envelope enclosed in this newsletter. As always, we are incredibly grateful for your support and dedication to your waterways!



