



Responding to Hurricane Florence

by Matthew Starr

In the days leading up to Hurricane Florence making landfall, your Riverkeepers and staff at Sound Rivers were consumed with tracking and planning for what would likely be a devastating storm for much of North Carolina. As the storm approached our coast, it was evident that this major hurricane was going to cause severe flooding and damage to many of our communities.

The Neuse River saw record flooding in the wake of Hurricane Matthew two years ago, and our experience during that disaster helped us know what to expect from Hurricane Florence. We knew coal ash ponds at Duke Energy's HF Lee facility likely would be inundated. We knew many industrial swine and poultry facilities likely would be under water and at high risk for dumping raw waste into our rivers. We also knew wastewater treatment plants and sewer systems likely would dump raw waste into our waters. Riverkeepers across North Carolina also have created plans, protocols, and staff training regimens so we can respond effectively when large storms threaten. Our efforts are required because our state agencies, starved by years of egregious budget cuts handed down by our General Assembly, have atrophied to the point that they simply cannot respond effectively in times of crisis.



*Documenting Coal Ash
Spill- Neuse River*

Riverkeepers Gather Needed Data

Before landfall, Riverkeepers and our partners were setting up flights, checking river levels, and forecasting what sources of pollution were most likely an immediate risk. This is part of our rapid response protocol for severe events such as hurricanes or major pollution spills. Just days after landfall, Sound Rivers staff were flying over flooded swine and poultry facilities, flooded coal ash ponds, and wastewater treatment plants. We were busy creating float plans to get safely on the water to assess

water pollution and to take samples. Our photos, firsthand accounts, and sample results documented the widespread environmental damage and the threat to public health that this storm caused. In many cases, such documentation simply wouldn't exist without our efforts. Industries would whitewash their spills, and our resource-starved state agencies would not be able to gather data soon enough to be relevant.

Our communities need to be safeguarded

Storms such as Matthew and Florence illustrate the enormity of the task that Riverkeepers and Sound Rivers face. Our communities and waterways need strong voices who will hold polluters and government officials accountable; the work doesn't end when the floodwaters have receded and media attention has moved on. We will continue to monitor the health of our waterways and advocate for sensible solutions that will ensure our waterways are Fishable, Swimmable, and Drinkable.

Greetings from Leadership



Climate Change in Our State

by Heather Deck

Since Hurricane Florence passed over our shores, we have learned much about the storm. Our staff has put together a fact sheet, inserted in this newsletter, that summarizes what we know to date. It also highlights the work of your Riverkeepers and Program Staff before and after the storm, to help keep you informed of the dangers posed by rising and contaminated flood waters.

One thing is clear: effects from our changing climate are real and being felt today. From raging and devastating wildfires in the west to more intense hurricanes here in the east, our lives, our communities, and our country are being impacted in a very negative way.

But climate change isn't just manifested in horrific natural disasters. There are small changes that, taken together, impact our communities and our economy. In a recent report released by the White House, 13 federal agencies and collaborating scientists noted that North Carolina is, and will continue to be, at ground zero for serious climate change impacts. And the findings are sobering. Our communities will continue to see an increase in the number of heavy rainfall events, leading to more flooding. Our oceans are projected to rise by 4.3 feet by 2100, causing our coastal communities to see high tide flooding at regular intervals. Together, these impacts will have grave repercussions for our waterways, public health and economy.

While the situation is serious, it is not without hope. A proactive stance and a strong will can help convince our leaders to work to mitigate climate change and to help communities prepare for what is to come. It may not be all wine and roses, but it is the path before us and we must carry on.

The environment is where we all meet; where all have a mutual interest; it is the one thing all of us share.

– Lady Bird Johnson

Heather Deck



Your Lower Neuse Riverkeeper Katy Hunt samples the Neuse after Hurricane Florence



Sound Rivers' Director of Programs Matt Butler rescues baby turtle from post-Florence coal ash spill on Cape Fear River

Upcoming Events

Visit soundrivers.org for more info

Tuesday, March 12, 2019 Taste of Coastal Carolina
NC History Center, New Bern, NC

Saturday, November 9, 2019- 34th Annual Oyster Roast
Washington Civic Center, Washington, NC

We would like to thank the Z. Smith Reynold's Foundation and the Eddie and Jo Allison Smith Family Foundation for their continued support of Sound Rivers and our mission to protect the Neuse and Tar-Pamlico Rivers.

Your Rivers!

Spotlight: Lower Neuse River

By Katy Hunt

The Neusiok word, “Neuse,” means peace. Floating down the river or fishing from the bank is very peaceful, though the water quality of the Neuse is quite tumultuous.

The Neuse Basin has so much to offer by way of recreation, economics, and tourism. At 275 miles, it is the longest river entirely contained in North Carolina. The lower portion of the basin also has an interesting and varied landscape; the river transforms from free flowing river to a slower moving, brackish estuary ending at the Pamlico Sound where it holds the record for widest river in the country at 6 miles across.

Estuaries provide vital nursery habitat for many species of fish. In the Neuse, approximately 2,750 acres of estuarine water is home to species including shad, catfish, and bass. Over 90% of commercial seafood in North Carolina is caught in the Albemarle-Pamlico Estuary. These waters are also home to coastal birds, oysters, crabs, plants, and more. The natural beauty of the area combined with the presence of wildlife makes it a popular draw for kayakers and anglers. Alligators are a common sight and dolphins and sharks have even been spotted as far upstream as New Bern.

Unfortunately, the quality of the water is not quite as picturesque as the river itself. For decades the Neuse basin has been polluted from municipal and agricultural processes. The rivers and streams that make up the Neuse basin wind through towns and agricultural lands, whose runoff amounts to serious problems for the river.

Despite the problems facing the Lower Neuse River and its estuary, it is still a vital resource for those living in the basin. Beyond the basic needs of drinking water and food, economic uses and tourism, the river is worth protecting. The Neuse river, as its name suggests, provides a sense of peace, something we all need in our lives. It's a feeling that should be shared and passed on for future generations. It is estimated that the Neuse River is one of the oldest in the country at 2 million years old. Around 14,000 years ago Native Americans were settling along the banks of the river. New Bern was established as the first capital of North Carolina due to the import opportunities provided by the river. The river has been here long before us and will remain long after we are gone. The Neuse River belongs to all of us. It's there for us to enjoy and it's our responsibility to be good stewards of all that it has to offer.

CURRENTS WINTER 2018/2019

Event Spotlight



Tuesday, March 12 - 6pm - NC History Center, New Bern

Join us for the 16th Annual Taste of Coastal Carolina on March 12th, 2019! While the New Bern Convention Center undergoes repairs, we'll be hosting the event at the North Carolina History Center this year. Taste signature dishes from 20 local restaurants, sample beer and wine, and celebrate clean water. Tickets are \$100 per person, \$60 of which is tax deductible, and all proceeds support Sound Rivers and the important work of your Riverkeepers. Visit soundrivers.org to get your tickets on January 13th – only 250 are available this year!

Record Setting Oyster Roast!

The 2018 Sound Rivers Annual Pamlico-Tar Oyster Roast was hosted at the Washington Civic Center on November 10th, with frigid temperatures and clear skies. The cold did not deter nearly 450 attendees from enjoying 82 bushels of oysters! Each and every shell



from the oysters enjoyed at the event is recycled back into the Pamlico Sound - and the proceeds from this year's event will fund the work of your Pamlico-Tar Riverkeeper for nearly 2/3 of 2019! Thank you to all who sponsored and attended, and, of course, to our amazing volunteers who make this event a wonderful success year after year!

Many thanks to our 2018 Sponsors!

Wright Contracting, Grady-White Boats, Restoration Systems, Rocky Mount Mills, Hester & Tucker, Fluvial Solutions, Inc, Boddie Noell Enterprises, River City Construction, Tayloe's Hospital Pharmacy, Kris Bass Engineering, Hudson Brothers Construction Company, Century 21- Scott Campbell, Southern Bank, CresCom Bank, Vidant Beaufort Hospital, Morris Insurance Agency, LBA Group, Daughtridge Gas & Oil, Coca-Cola, Duck Rabbit Craft Brewery, Billy Beer, Day Dreamer Events

**Save the date for next year's Oyster Roast
on November 9th, 2019!**

Advocacy Updates

A Troubled Project:

Atlantic Coast Pipeline Updates Loses Yet Another Required Permit

On November 7th 2018, thanks to the work of our allies at the Sierra Club and other organizations, the Fourth Circuit Court of Appeals stayed a federal permit that authorized construction in wetlands and waterways (Nationwide Permit 12 or NWP 12) in West Virginia. The Army Corps of Engineer that issues the NWP 12, then halted the use of the same permit in North Carolina.

“It is uncertain whether NWP 12 will ultimately be available to authorize work for ACP in North Carolina. ... Effective immediately you must stop all activities being done in reliance upon the authorization under the NWP.” – Army Corps

This is the 3rd major federal authorization that has been shot down by the courts this year, yet ACP continues to push forward, putting our waterways at risk. Legally, the Federal Energy Regulatory Commission (that grants permission for ACP to conduct construction activities) must suspend all construction since the key federal permit is suspended. However, as of December 1, FERC has not acted.



Contractors have drilled under the Tar River, cleared land and staged pipe on both banks of the river in Nash County (Left)

NC Pipeline Watch Trainings

While construction has started, we're not giving up. In addition to fighting ACP in the courts, we are working with partners to train observers to monitor ACP construction for pollution concerns.

In the last month, your Pamlico-Tar Riverkeeper lead trainings in the Tar and Lumber basins, as well as online. Participants received guidance on how to locate the ACP route, what measures should be in place to protect our rivers and streams from construction pollution, and how to look for and document issues with pollution control measures.

Go to ncpipelinewatch.org for information and to volunteer

Assault on Clean Water Protections

Despite the fundamental necessity of clean water, politicians in Washington are trying to dismantle the Clean Water Act, which has kept our nation's waters clean for nearly 50 years. This bedrock environmental safeguard is a central tool used by state and local governments to shield and protect clean water needed for healthy communities and families. Without it, polluted waters would threaten North Carolina's local economies, communities, and way of life.

Allowing open dumping into upstream waters spells trouble for everyone downstream. Pollution dumped by industry flows from smaller streams into our rivers and lakes, across state lines and downriver, contaminating waters used by families and communities for drinking and recreation. The best way to protect clean water is to stop harmful pollution at its source, before it reaches our waterways.

Under the proposal by the administration and supported by industrial polluters, more than 55 percent of North Carolina's stream miles and millions of acres of wetlands nationwide will again be at risk from pollution and destruction. At least fifty percent of North Carolinians get their drinking water from sources that rely on small streams that may lose critical Clean Water Act protections under the administration's proposal. More than 7,000 miles of streams that feed into North Carolina's drinking water sources would be at risk for pollution if the Clean Water Act is rolled back as the administration plans. Thousands of acres of wetlands that provide flood protection, filter pollution, and provide essential wildlife habitat are at risk if the federal government moves forward with its plan.

CLEAN WATER IS BIG BUSINESS IN NORTH CAROLINA



We expect the new rule to be released at anytime in December. Your voice will be critical to ensure North Carolina's waterways are protected.

Please visit soundrivers.org/clean-water-act to take action and learn more.

Advocacy Updates

Hurricane Florence Exposes Problems With Wastewater Infrastructure

By Forrest English

On September 14th Hurricane Florence hit eastern North Carolina, bringing record storm surges from the ocean to some areas, pummeling the coast with tree toppling high winds, and dumping an awful lot of rain in every part of our watersheds.



Aerial image of the City of Grifton's Wastewater Treatment Plant Surrounded by Flood Waters (Photo: F. English)

The storm surge and the huge amounts of rain combined to create widespread flooding throughout the region. The flooding and heavy rainfall overwhelmed wastewater infrastructure that our communities rely on to safely transport and treat raw sewage. When pumps lose power, waste lagoons are submerged or rain pushes into pipes, resulting in sewage spilling onto our streets and into our rivers.

As a result of Hurricane Florence, more than half a million people in our region were advised to boil drinking water due to contamination from bacteria commonly found in sewage.

In our area, spills were reported in at least the following communities: Greenville, Washington, Belhaven, Aurora, Farmville, New Bern, Kinston, and Goldsboro, with potentially many more unreported. Between Hurricanes Florence and Michael, 50 million gallons of sewage were reported as spilled in North Carolina, a number that is likely low due to difficulty of determining quantity of these leaks by many municipalities.

Florence showed us again why it is important our communities prepare for the increased frequency of severe storms. We can do this in part by investing in upgrades to our sewer systems that take storms into account and by moving critical infrastructure like sewage treatment plants out of flood-prone areas along our rivers.

Your Voice Needed to Improve Protections from Industrial Agriculture

By Katy Hunt

Like Hurricane Matthew, Florence was devastating to industrial animal operations and the surrounding rural communities. In the Neuse River basin, four swine facilities and their open waste pits flooded and eight more facilities were threatened by flood waters. The four facilities that did flood housed 10,500 hogs, according to permit records. This number of hogs produce roughly 9 million gallons of waste each year. Untold millions of gallons of untreated swine waste were washed into our rivers, but the problem with industrial animal operations doesn't end there.

Poultry facilities are a rapidly increasing problem, adding to the threat of pollution. These long barns full of birds pop up seemingly overnight with little to no oversight. Florence flooded two separate facilities along the Trent River. Between these two facilities, 8 barns containing an estimated 224,000 birds were flooded. That many birds produce 1,700 tons of waste each year. The most worrisome issue with poultry facilities is their lack of permitting, as opposed to swine operations. Unlike hog facilities with their cesspools of waste, we don't have a list of the barns and their locations. It isn't until your Riverkeepers are in the air surveying flood damage that we are able to spot affected facilities.



Aerial image of a flooded industrial swine facility adjacent to the Neuse River in Wayne County. This facility also flooded in Hurricane Matthew (Photo: F. English)

While requiring poultry facilities to be permitted is something Sound Rivers is fighting for, strengthening protections for water quality through the swine permit system is an imminent concern. The Department of Environmental Quality (DEQ) has begun the process of renewing the general swine permit. This process happens every 5 years and right now is our opportunity to improve the rules surrounding animal waste management to better protect our waters and communities. The Riverkeepers were present at a recent stakeholder meeting, but your voices will be needed as this process continues. Learn More at soundrivers.org/swine-permit

Member Minute

Why I Give, with Chris Smith

By Corinne Everett Belch

Chris Smith grew up on the Pamlico and Tar Rivers in Eastern NC, from Greenville to Grimesland to Bath. His family manufactures Grady-White Boats, and most of his time in the water was spent on or behind a Grady. “Now that I have children of my own it’s a special place for our whole family. Every generation enjoys being on the water, and we try to gather there as often as possible,” he says.

In the 1980’s, when Sound Rivers, then Pamlico-Tar River Foundation, was beginning, Chris’s family began hearing about the grassroots efforts of the organization. He says, “With the mission of the Pamlico-Tar River Foundation to monitor and protect the rivers we love, it was inevitable that our family would become engaged with their work.”

Chris is now a member of Sound Rivers’ Board of Directors and notes that conservation is incredibly important to him; it is a large part of why he chooses to support the organization. “Sound Rivers engages in conservation efforts in an area where I have a deep history. I want the health and beauty of the natural places I love to remain healthy not only for me, but for the generations of my family who will enjoy these waters for many years to come.”

“Through post-Florence impact assessments, Sound Rivers is helping the communities within the watershed to recover. Hurricanes are pounding our coast more often and with more force, and we need to stay aware of how these storms affect the quality of our waterways,” Chris said. “The work that Sound Rivers does on a daily basis is needed now more than ever.”

Thank you so much Chris, and all our supporters; we could not fight for clean water without you!

Ways to Support Your Riverkeepers

You might not know that Sound Rivers accepts all types of donations, and there are many ways to support the valuable work your RIVERKEEPERS do. Sound Rivers can accept:

- In-Kind Gifts
- IRA Charitable Rollover
- Gifts of Stock
- Legacy Giving

For more information or questions please visit our website or email corinne@soundrivers.org

Volunteer Spotlight: Lynn Hines

By Corinne Everett Belch



Lynn Hines has been volunteering for Sound Rivers for quite some time, and in the past year she has been a huge help in our New Bern office! Lynn and husband Bill moved to Oriental, NC, after her retirement from the banking industry in Ohio. She then worked at a free medical clinic and began volunteering in her new community. After completely retiring, she decided to devote herself to her art full-time - Lynn is an accomplished painter and a resident artist at Oriental’s Village Gallery. She has donated many beautiful works to our silent auction fundraisers over the years!

Lynn and Bill both got involved with Sound Rivers after hearing the Lower Neuse Riverkeeper speak at Pamlico Community College about the organization. She and Bill began helping any way they could - participating in cleanups, manning educational booths, and working in the office.

Of her volunteering, Lynn said, “I volunteer with Sound Rivers because their mission is all about the future. The work Sound Rivers does today will help to assure we have clean, drinkable water in the future. I grew up on a farm and was outside most of the day and enjoyed fishing with my dad. I want to make sure our young people have the same childhood I did. If someone is considering getting involved with Sound Rivers, there is no better calling than environmental work.”

Lynn values the work Sound Rivers does, particularly our work educating the public about environmental threats and conservation, which leads to positive outcomes. She references, for instance, plastic straws: “We no longer use plastic straws; Americans use 500 million plastic straws every day. Every time we use our metal straws, it gives us the opportunity to talk about them and why we use them. Just looking out for Mother Earth!” Thank you for your service, Lynn!

Interested in volunteering?

We need Water Trail Stewards, Oyster Roast volunteers, Kids River Fest Volunteers, River Cleanup volunteers, Envelope-stuffing volunteers and more! Find out more - email volunteer@soundrivers.org

Ways to Give

Many Ways to Support Clean Water

Did you know there are many different ways to support the important work Sound Rivers does to preserve and protect your rivers? Your generosity allows us to keep fighting for you, because we know everyone should have access to fishable, swimmable, drinkable water.

In-Kind Gifts: Your in-kind gifts help make Sound Rivers a success, from our Silent Auctions to getting on the waterways! We're currently collecting Silent Auction items for our 2019 Taste of Coastal Carolina, and we also accept vehicle and boat donations.

Gifts of Stock: Gifting stock might be the right choice for you - there are a variety of benefits to donating long-term appreciated securities, including stock, bonds, and mutual funds, directly to charity. Sound Rivers' Director of Development is always happy to provide any information your financial advisor would need to initiate this type of gift.

IRA Charitable Rollover: Did you know you can undertake a "charitable rollover" of all or part of your required IRA distribution? No income tax will then be due on the amount that passes to charity. If you're at least 70 ½ years old, you can give annually to Sound Rivers to fulfill your minimum distribution requirements while receiving tax benefits.

Legacy Giving: Supporting Sound Rivers by including us in your estate planning is an incredible gift of generosity that will ensure your rivers are protected indefinitely. If you are considering including Sound Rivers in your estate planning, we would love for you to let us know so we can recognize you as a legacy supporter!

For more information, please contact Corinne at 252-637-7972



Riffles & Runs

Improving our Waterways: One Campus at a Time

By Matt Butler



Matt Butler and JP Page inspect a drainage feature

Sound Rivers is continuing our important work of assisting local community colleges and universities to reduce their impact on waterways. With funding provided by the Albemarle-Pamlico National Estuary Partnership (APNEP), Sound Rivers has partnered with NC State and North Carolina Sea Grant to create

individualized plans at six campuses in an effort to reduce the amount of polluted stormwater runoff leaving each campus. The team has met with administrators, staff, and faculty to determine the correct approach for each campus. The campuses include all four Vance-Granville Community College campuses, NC Wesleyan, and Nash County Community College. Through this collaborative process, Sound Rivers ensures that the plans take into consideration existing stormwater problems and areas of concern identified by each campus administration.

All of the colleges we work with have extensive impervious areas with large parking lots and building roofs. These areas can cause stormwater to be heated, cause erosion, and carry pollutants to our local waterways. Once the team completes a on-site stormwater assessment, a comprehensive stormwater plan is developed for each campus. These plans will outline the current status of stormwater infrastructure at the campus and identify areas where there can be improvements. These six campuses are a small portion of a much larger project to assess and address stormwater issues at more than twenty schools within the Tar-Pamlico and Neuse River basins. Sound Rivers will continue work over the next year to complete the assessments and stormwater plans. At that time, we will compile the results of all 20 campuses and rank identified stormwater projects that provide the greatest environmental benefit for the cost. By 2020, Sound Rivers and partners will utilize additional grant funding awarded by the state and begin implementing the projects that will reduce the stormwater impacts and improve our waterways.

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16th Annual Taste of Coastal Carolina
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6 - 8:00 p.m.

NC History Center, Tryon Palace
529 South Front Street, New Bern, NC



Tickets can be purchased
online at soundrivers.org
beginning January 13, 2019.
Or call 252-637-7972.