

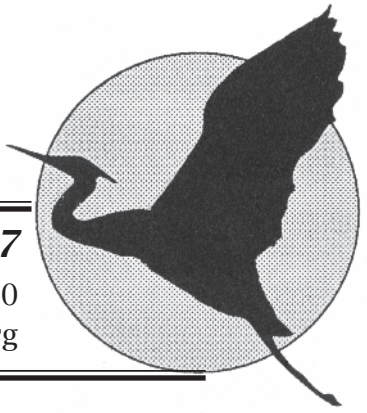
Voice of the Haw



The Haw River Assembly August 2017

P.O. Box 187 · Bynum, NC 27228 · (919) 542-5790

email: info@hawriver.org · www.hawriver.org



Of Trees and Rivers

The Haw River flows through what was once part of the great Eastern Woodlands, forests that stretched from Maine to Florida and west to the Mississippi. There was a time, long before the Europeans came to these lands, that the river and its streams flowed clear and full of life. The river was connected to the forest, its summer shade, and autumn leaf fall. Trees that loved the water's edge used the river to carry away their seeds to new homes.



diminished in the Haw River lands, forests returned, and so did some of the animals that had disappeared for many years, such as river otters and beavers. But where farms once grew crops, now houses sprout up, with shopping centers and sprawl paving over the forests and sending mud into our streams.

Perhaps, in the 21st century, we now understand more about the value of trees and their beauty, shade, and life-

The riparian ecosystem was a special place for plants and animals.

People thought the forests were endless, and that we could never cut all the trees. But we did. The European settlers brought tools they used to dam the creeks for grist mills and cleared the forest for farms. Stripped of the trees, soil washed into the streams and river, altering the stream beds and flow, and smothering life. As farmland

giving oxygen. We know we need forested riparian buffers along streams and rivers, so their roots and leafy carpets can filter pollution and mud before it enters the water. We know that an un-fragmented forest is critical habitat to many creatures that disappear as the forest is broken by roads and development. The song of the wood thrush, *continued on p. 7*

Learning Celebration – Coming Soon!

This is our 28th year of the Learning Celebration (LC), and we are excited to continue this special tradition of connecting new generations to the river! It may be sweltering and humid now, but before we know it the cool fall air will arrive, and it will be time to kick off the LC in Bynum on September 23rd. The Learning Celebration is both an incredible hands-on river experience for children and a coming together of community filled with laughter, singing, and a deep love for the river. It truly takes a village to make it all happen, and we hope you will join us as a volunteer!

**** Week One: Bynum September 23 - 29**

**** Week Two: Saxapahaw September 30 - October 6**

**** Week Three: Camp Guilrock October 8 - 13**

See page 4 for more LC news, and *Sign up Today!*



Photo by Milada Vachudova

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Elaine Chiosso, HAW RIVERKEEPER® and
Executive Director
Erin Jobe, *Watershed Education Coordinator*
Emily Sutton, *Haw River Watch Coordinator*
Kathy Buck, *Office Manager*
Cynthia Crossen, *Newsletter Editor*

Thanks to **Jan Burger** for art throughout
this newsletter: HRF Heron, Boy with
Butterfly, and River Watch Heron.

**To join the Haw River Assembly or
renew your membership, send a check to:**
HRA, P.O. Box 187, Bynum, NC 27228.

Individual: \$25 Family: \$40

Sustaining: \$50 Heron Circle: \$100 & above

Low Income: \$10

*The Haw River
Assembly is a non-
profit grassroots
organization founded
in 1982. Our mission
is to protect and
restore the Haw River,
its tributaries, and
Jordan Lake; and to
build a community
that shares this vision.*
(919) 542-5790
www.hawriver.org

HRA Annual Membership Meeting

We'll be celebrating our 35th Anniversary at our Annual Membership Meeting in November at the Haw River Ballroom in Saxapahaw on Sunday, November 12. We'll have outdoor activities and the membership meeting in the afternoon (free), followed by a 35th Anniversary Celebration and fundraiser with music, food, and drinks. More information coming soon! The Annual Meeting is when we hold elections for our Board of Directors. If you are interested in joining our Board (we meet 6 times a year alternating between Bynum and Saxapahaw) and would like to offer your talents, please contact Elaine Chiosso, HRA Executive Director, at info@hawriver.org.

Notes from the Haw

THE HRA OFFICE HAS MOVED!

Haw River Assembly office has moved to a new location – 143 Bynum Church Rd. We are renting the house owned by Debby and Ken Tunnell (long-time HRA supporters) at the corner of Bynum Hill and Bynum Church Rd. It's across from where the old Bynum mill once stood, now part of the Lower Haw River State Natural Area. Look for the white house with the bright turquoise foundation (see photo below). We still have the same contact info: P.O. Box 187, Bynum, NC 27228, (919) 542-5790 and email: info@hawriver.org. For directions go to <http://hawriver.org/about-us/contact-us/>. Come by and see us – we have a wonderful breezy front porch.



In other news, we closed on a piece of property in Saxapahaw that we hope (after a lot of work) will become the permanent office location for HRA. This was possible due to a generous donation we received in December of 2015. We also said goodbye in April to Alex White, our Watershed Education Coordinator, who left for a new position at NCSU. We welcome Erin



Photo by Chris Carter

Jobe, who began working with us this summer, just in time to coordinate the upcoming Learning Celebration (read more on p. 4)!

We wrapped up the last of our spring 35th Anniversary "Meet and Greet" with one at Fair Game Beverage Co. in Pittsboro (the town where the first HRA meeting was held in 1982!). Thanks to Chris Jude for a lovely evening with new and old friends.



Photos on this page, and front page & p.3 river photos, by Elaine Chiosso

On Earth Day, April 22, we took part in the March for Science in Greensboro (see photo above), and were proud to be part of the national effort to push back on White House plans to defund science and environmental agencies and programs.

From the river,
Elaine Chiosso,
HAW RIVERKEEPER®



HAW RIVERKEEPER®

Issues in the Watershed

Industrial Chemicals in Our Drinking Water – the Haw River and Cape Fear Rivers

The news in June that Wilmington's drinking water from the Cape Fear River has been contaminated by a chemical called GenX raised alarm among officials and residents. The chemical is manufactured at the Chemours factory in Fayetteville, upriver from Wilmington. GenX is a new generation of PFAS chemicals used in industry, and has been shown to cause tumors and reproductive problems in lab studies. There are currently no federal drinking water standards for these and many other chemicals that are discharged by industry into our waters. Most drinking water treatment plants may be doing a good job of removing the nearly 90 chemicals regulated by the Safe Drinking Water Act, but have limited or no ability to deal with unregulated compounds.

Industrial chemicals have been a problem in the Haw River for many years. Studies published by NC scientists in *Environmental Science and Technology* between 2007 and 2016 have documented high amounts of PFAS in the Haw River watershed, including drinking water sources. The source water for Pittsboro, the Haw River, has repeatedly exceeded the EPA health advisory threshold for PFAS. Pittsboro began using an additional treatment method last winter to try and remove more of the PFASs, but even these methods have limited results. Large municipal water supplies in the Haw River watershed, including OWASA (serving Chapel Hill and Carrboro) and Greensboro were required to monitor for PFOS and PFOA during the recent EPA study. Both of these found PFASs in their source and/or finished drinking water, despite their water supply sources being much more protected than the Haw River. Another contaminant, the industrial solvent 1,4-dioxane, was found in Pittsboro's drinking water in recent monitoring. 1,4-dioxane is very difficult to remove in the drinking water treatment process.

How many chemicals that are currently unregulated under the Safe Drinking Water Act would be found in public water supplies if we had the resources to look for them? We need better industrial discharge regulations and techniques for contaminant monitoring to stop this problem at the source, instead of trying to remove chemicals already in our water supplies. (Read more at www.hawriver.org.)

NC Budget Includes Funding for “Experiment” to Put Chemicals in Jordan Lake to Kill Algae

In late June, the Senate overruled Governor Cooper's veto of the state's budget, which included a 1.3 million pilot project in Jordan Lake using chemically based algaecides to mitigate nutrient pollution. Like the failed Solar Bee experiment, algaecides have never been conducted in a water body as large as Jordan Lake, and never in a drinking water reservoir. Like the Solar Bees, this would do nothing to address the underlying

problem of excess nutrients flowing in from upriver. It was approved with little debate, pushed forward by former House Speaker Harold Brubaker, now a lobbyist for SePro, who will be awarded the contract for the project. SePro cites copper sulfate pentahydrate as the active ingredient to its “phosphorus-locking technology,” but other chemicals include glyphosates (common in Round-Up). This technique has been questioned by DEQ, EPA, and many scientific journals, and raises many public health and environmental concerns. It's now up for approval from the U.S Army Corps of Engineers (USACE). When a request by SePro or the state is submitted, USACE will conduct reviews, including an Environmental Assessment and a State Environmental Policy Act (SEPA). This could take between one and two years and will include a public comment period. We'll keep you informed.

Chatham County Approves One Year Extension of Fracking Moratorium

Following a public hearing on June 17, the Chatham County Board of Commissioners voted to extend the current two year moratorium on oil and gas activities (including fracking) until August 2018. The county had recently commissioned a study of natural gas extraction in Chatham, and believed that many issues still need to be further studied or understood. These include the dangers of “shallow fracking” which would most likely be done in Chatham, dangers to ground and surface water, and questions about the current status of NC rules that govern fracking.

Speak Out Against the Atlantic Coast Pipeline

Pipelines for fracked gas are being fought around the country. The proposed Atlantic Coast Pipeline (ACP) would run through West Virginia, Virginia, and North Carolina. Although it will not cross through the Haw River watershed, every river to the east of us will be impacted. This pipeline is dangerous, expensive, and unneeded. To be approved, the pipeline must be granted a “401 Water Quality Certification” by the state. Submit written comments by August 19, to prevent a permit that would let ACP degrade natural resources and communities. Go to frackfreenc.org for more information about the pipeline.

It's A Coal Ash Landfill, Not Mine Reclamation

Superior Court Judge Carl Fox told Charah, the coal ash contractor for Duke Energy, on May 16 that they could not continue excavation of their land at Brickhaven in Chatham County in order to landfill coal ash from other parts of the state. This followed his ruling that the “mine reclamation” permits were invalid. We believe that this operation was never mine reclamation for “beneficial use” – but calling it that required fewer regulations than for landfilling coal ash. Charah is now banned from any further excavation until their appeal has been resolved in the courts.

Learning Celebration 2017



Photo by Elaine Chiosso

from Erin Jobe, Learning Celebration Coordinator
(919) 542-5790; erin@hawriver.org

I'm Erin Jobe, your new Learning Celebration Coordinator! I joined the HRA staff in July, and I am quickly getting a move on all things Learning Celebration. Each time past volunteers describe the Learning Celebration (LC) to me, I can see them light up with excitement and nostalgia. I can't wait to experience it all. I spent the last several years managing the Carrboro Farmers' Market, and in addition to working for HRA, I work as the buyer for Townsend Bertram & Company in Carrboro. I live in Pittsboro, just down the road from the HRA office, with my husband Woody and our two furry pups, Max and Eloise. I am looking forward to meeting many of you soon!



Photo by Cynthia Crossen

We have a completely full schedule of 4th-graders for all three weeks of the Learning Celebration! There are lots of different ways you can help us make sure that these kids have a memorable and positive experience this year. Sign up for any of the volunteer opportunities below and donate to the Learning Celebration at hawriver.org, under the Projects tab; or contact Erin at erin@hawriver.org or 919-542-5790.

This Year's Learning Celebration Dates

Bynum: Sept. 23 – 29

Saxapahaw: September 30 – October 6

Camp Guilrock: October 8 – 13

Ways You Can Be Part of the Learning Celebration

#1 Volunteer at the Learning

Celebration. Volunteers are the glue that holds the LC together, and we need over 20 people each day! As a volunteer, you'll get to enjoy and appreciate the Haw River, and facilitate children connecting with the river in a fun, creative, and positive environment. Please consider signing up for a few days or even weeks of fun on the river with us.

#2 Prepare a Meal. Our volunteers dive into each camp day with energy and enthusiasm, creating an atmosphere where joy and love for the river are contagious! They work up quite an appetite in the process, and lunch and dinners are needed to feed our crew. Please consider donating a vegetarian lunch or dinner for our crew (about 25 people) one day during the LC.

#3 Contribute to the LC Crowdfunder. Keeping the costs of the Learning Celebration as low as possible allows us to ensure that no children or schools are turned down for lack of funds. We apply for grants, ask for donations from businesses, and work to save on costs in every way possible, but the expenses of hosting over 1,000 children and 100 volunteers over three weeks add up! You can help us ensure the success and sustainability of the Learning Celebration for decades to come by offering a monetary contribution of any size. You can donate online at hawriver.org, or use the insert in this newsletter to mail in a contribution.





Standing in the Stream

Haw River Watch Project News from Emily Sutton,
Haw River Watch Coordinator, (919) 542-5790; emily@hawriver.org

We have successfully re-launched the Muddy Water Watch Project!



This project is an initiative to reduce stormwater runoff and sediment pollution from construction sites.

Partnering with county Sediment and Erosion Control programs, Haw River Assembly provides training, materials, and the tools necessary for volunteers to properly identify and report sediment and erosion control violations. After being trained by Haw River Assembly and county officials, volunteers will monitor, record, and report on potential sediment and erosion control violations at construction sites through a user-friendly smartphone application, Muddy Water Watch, free in the app store. Reports are sent directly to our staff, and to the Sediment and Erosion Control Officials in the county.

We began in Chatham County and will continue moving to other counties in the watershed. Our first training brought sixteen volunteers to the program. Rachael Thorn,

Chatham's Watershed Protection Specialist, introduced ordinances specific to Chatham County and gave a clear picture of what volunteers could expect from her and her team. The training presentation contained photos that clearly show what is and is not a violation, which helped volunteers understand what to look for at a development site.

Our next training will soon be scheduled in Orange County. We will then move on to Alamance, Wake, Guilford, Durham, and Rockingham. At our webpage, you will find a description of the project, county-specific information such as ordinances, and upcoming training dates. If you can't attend the training or missed the event in Chatham, it is not too late to join. We hope this project will not only help document sedimentation issues in the watershed, but help us keep an eye on where these developments are occurring and where the sedimentation issues are common. If you know of a potential sediment pollution issue, please let us know. Contact me at emily@hawriver.org, and I will make sure you have all of the tools and resources you need to join our efforts to protect our watershed from sediment pollution.



River Watch Project News We are steadily adding more teams to the River Watch program, and thankfully, I have received a few grants to help offset the costs of buying new gear for our teams. I hope to add more teams upriver as we expand our Muddy Water Watch project beyond Chatham. With the grant, we will be buying new gear for teams, as well as a few calibrated meters for use when volunteers report poor water quality. With these meters, our data will be more verifiable and trigger a more timely response to urgent water pollution issues. I will also be updating our database in order to share our information for graduate student and other scientific research, as well as state water quality specialists. The grant will also allow us to print our updated map, which is available online.

I have been working with a group to build a statewide aquatic data hub, in its early planning stages, which will allow organizations like ours to use our models for training and data collecting, or give our river watch members the tools we need to have more reliable and state recognized data.

Though our data cannot currently be used in state water quality reports as primary data because we do not have calibrated test kits and quality assurance plans, our data set is a powerful tool to show trends in water quality. We have had so many teams monitor the same location through all seasonal changes for many years, and that data has been extremely valuable in planning board meetings,

re-zoning hearings, when challenging development permits, and when challenging other potential threats to water quality. The trend data would not be possible without our dedicated River Watch team members! Our fall Snapshot date is the weekend before the Learning Celebration, September 23rd. I will also have a public stream training September 9th on Bolin Creek in Umstead Park, Chapel Hill. If you are interested in joining the project or donating to get more teams on the water, contact emily@hawriver.org.

It Was Another Wonderful Haw River Festival!

We had a great time on a cool and cloudy May 6 for our Haw River Festival in Saxapahaw (sounds pretty good in this August heat). The crowds had fun and we raised about \$4,000 on donations and sales of raffle tickets, t-shirts and the awesome silent auction. The beautiful Perception kayak donated by Get Outdoors in Greensboro was won by a young man who grew up in Saxapahaw, and he was thrilled to get it! Emily Sutton and her team of volunteers showed off water critters to folks down by the river and demonstrated water sampling. We enjoyed chatting with folks about issues on the river and great places to hike and paddle, while other volunteers showed folks how polluted stormwater gets in the Haw – and solutions we can all use. The Puppet Parade drew folks of all ages to carry our banners and the beautiful puppets from Paperhand Puppet Intervention. The bands played beautiful music into the evening as fireflies emerged – and we all agreed it was a lovely afternoon by the river!



Photo by Emily Sutton



Photos on right by Elaine Chiosso

BIG THANKS TO ALL OUR VOLUNTEERS! We couldn't put this on without them and welcome you to join us next year.

BIG THANKS TO THE BANDS! We loved the music! * The Village Band (thevillageband.org) * Tim Smith Band (soundcloud.com/timmytoo-music) * Counterclockwise String Band (counterclockwisestringband.com) * Diali Cissokho (kairabamusic.com) *

BIG THANKS TO THE SILENT AUCTION DONORS and their beautiful contributions of art, crafts, tickets and more. Judith Brooks, Lea Clayton, Chris Carter, Eliza and Molly DuBose, The Eddy Pub, Fair Game Beverage Co., Gerri and Co., Roy Girolami, Nick Harper, Haw River Ballroom, Haw River Canoe and Kayak Co., Clyde Jones, William Moore, Claude Sanders, Emma Skurnick, Chester Stewart, Doug Wakeman, Allison Weiner, and Nathalie Worthington. Also – thanks to the Saxapahaw General Store for advance raffle ticket sales and display of our kayak.

And THANKS to the wonderful folks of Saturdays in Saxapahaw for hosting us! The Haw River Festival kicks off the opening of the series each year. You can continue to enjoy live music and the Farmer's Market every Saturday this summer from 5 - 8 pm through the end of August.



"Of Trees and Rivers" continued from p. 1

tracks of a bobcat, remind us that this is their home. And humans need the forest too. The Japanese know the benefits of "forest bathing" – to immerse ourselves in the forest each day for spiritual and physical well being.

The 21st century has brought new urgency to saving our forests. Many scientists believe we are on the brink of a 6th mass extinction on planet earth, as the pressure of human population, pollution, and development leave little room for other life forms. We must save woodland habitat for plants and animals that still seem common today, but for how much longer? And as climate change progresses, the forests provide resiliency. Trees play a special role in sequestering carbon and providing clean air and shade in a world that is heating up. In times of the greater floods and droughts that are predicted, the forests will hold and release water more slowly.

Here in our own Haw River watershed, one of the most important things we can do is to protect the forests that remain. In every county and city we must be willing to speak out to protect our streams and forests from the ravages of development sprawl. We cannot take our forests for granted. Every tree we save is a gift to the next generation. – by *Elaine Chiosso*, **HAW RIVERKEEPER®**

Haw River Rocks!

Phil Bradley, Piedmont Geologist with the NC Geological Survey, has published an online geologic field guide to the Lower Haw River State Natural Area. This is fascinating reading for anyone interested in the ancient history of the Haw River, and includes maps and photos. This field guide looks at two separate stretches of the Haw River within the Lower Haw River State Natural Area in the vicinity of the Hwy 64 bridge crossing in Chatham County. The guide presents results of detailed geologic mapping by the NC Geological Survey in Chatham County, and interpretations of various outcrops and landforms along the river. This portion of the Haw River is located within the Hyco Formation of the Carolina terrane, which includes metamorphosed volcanic, volcanoclastic-sedimentary, and intrusive rocks associated with a volcanic island arc active around 630-612 million years ago. Our Haw River rocks were born in volcanoes across the ocean over 600 million years ago! Amazing to ponder when you pick up a pebble from the river.

The guide is available online at NC DEQ's "Geology of NC State Parks" (<https://deq.nc.gov/about/divisions/energy-mineral-land-resources/north-carolina-geological-survey/geoscience-education/geology-state-parks>). The text for the guide is written for non-geologists and is intended to be part of a complete laypersons guide to the geology of the Haw River, from its headwaters in Guilford County to Jordan Lake. Still to come are other trail guides which will include the Great Blue Heron Trail at Haw River State Park. In the meantime you can look at a more technical geologic guide to the Haw River State Park on the same DEQ website. It includes information on the very interesting iron ore belts that are a feature of the trail at the State Park.

We are very thankful to Phil for this wonderful geological guide for our river. He rocks!

PAPERHAND PUPPET INTERVENTION



SHADOW PUPPETS
STILTERS
MASKS

**NC
MUSEUM
OF ART
RALEIGH**
SEPT 8TH-10TH
NCARTMUSEUM.ORG

OUR 18TH ANNUAL
GIANT PUPPET PAGEANT
FOR ALL AGES

FOREST THEATRE
CHAPEL HILL
AUG 4TH- SEPT 4TH

EVERY
FRI SAT SUN
&
LABOR DAY
\$15, \$8 KIDS
SUGGESTED DONATION
AT THE FOREST THEATRE
NO ONE TURNED AWAY
FOR LACK OF FUNDS

7:00
WITH A
6:20 PRE SHOW
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CARDBOARD TRICKERY
GIANT PUPPETS
LIVE MUSIC

**CAROLINA
THEATRE**
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AUG 27, SEPT 3, 17TH

The 2017 HRA Clyde Jones "Dragonfly" T-Shirt



Designed by Clyde Jones, this colorful print is on a soft eggplant purple 100% organic cotton T-shirt by TS Designs in Burlington, using their environmentally friendly non-toxic printing process.

\$25 (adult) S, M, L, XL, XXL
\$25 (ladies style) S, M, L, XL
\$20 (youth) S, M, L

Available at the HRA office in Bynum (919-542-5790) or info@hawriver.org to inquire about our hours or shipping), Townsend Bertram in Carrboro, Saxapahaw General Store, & The Joyful Jewel in Pittsboro.

Upcoming 2017 HRA Events

Updates and details can be found at www.hawriver.org, on our Haw River Assembly Facebook page, and from our weekly E-newsletters which you can sign up for at info@hawriver.org.

Saturday, August 12, 5 - 8 pm, HRA booth at "Saturdays in Saxapahaw"
Farmer's market and outdoor concert. (For band listings for all dates in August: <http://www.saxapahawnc.com/bandschedule/>)

Saturday, August 26, Saxapahaw Reservoir evening paddle with Haw River Canoe and Kayak Company (contact 336-260-6465 or visit hawrivercanoe.com to register).

Saturday, September 9, 11 am - 1 pm, Stream Monitoring demonstration at Umstead Park in Chapel Hill (see page 5).

September 23-24, Haw River Watch Monitoring weekend.
For more info, contact River Watch Coordinator Emily Sutton at emily@hawriver.org, 919-542-5790 (see page 5).

September 23 - October 13, Our 28th Haw River Learning Celebration for 4th-graders. It's not too soon to sign up to volunteer! For more info or to volunteer, contact LC Coordinator Erin Jobe at erin@hawriver.org, 919-542-5890; or go to our website: <http://hawriver.org/projects/4th-grade-field-trip/>.

Sunday, October 22, Chicken Bridge to 15-501 whitewater paddle with Frog Hollow. (Register with Frog Hollow at www.froghollowoutdoors.com or 919-416-1200. Contact HRA for member discount code.)

Saturday, October 28, Bynum Reservoir with Frog Hollow, Halloween costume optional. (Register with Frog Hollow at www.froghollowoutdoors.com or 919-416-1200. Contact HRA for member discount code.)

Sunday November 12, HRA Annual Meeting and 35th Anniversary Celebration and Fundraiser at the Haw River Ballroom in Saxapahaw! Afternoon outdoor activities and annual meeting (free); with evening celebration with food, drink, and music (ticketed admission). More info coming soon!



Photo by Milada Vachudova

**SIGN UP for the
Learning Celebration
Sept. 23 - Oct. 13**

Address Service Requested

**Haw River Assembly
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Bynum, NC 27228**

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