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NewsStreams

Because Clean Water Can't Wait - Fall 2022

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The Ohio River Deserves Protection

By Susan Griffin Ward

Kentucky Waterways Alliance has long held that the health of the Ohio River ("La Belle Riviere") is critical to the well-being of our Commonwealth and country, both its citizens and wildlife. KWA has been working

for 30 years to protect it. The Ohio River Basin is a region of 204,000 square miles covering parts of 14 states and including a population of nearly 25 million people. For 664 miles the Ohio River flows along the Kentucky

shore. KWA is pleased to see renewed attention from many sectors focused on restoring, protecting, and celebrating the Ohio River, one of the great rivers of the world.

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A Message From Ward Wilson

Executive Director, Kentucky Waterways Alliance

Happy Holiday Season! We are so thankful for all of you that support KWA, partner with us, and cheer us on in our efforts to protect, restore, and celebrate the waterways of Kentucky. We've been busy since our last newsletter. We are removing dams from rivers, reviving our watershed program, hosting festivals, celebrating the Ohio River, and much more that you can read about in this issue.

2022 has been an important year for waterways. We are celebrating the 50th anniversary of the Clean Water Act. We are celebrating our progress, but also concerned about the threats to the Act from a US Supreme Court case now being decided and about new pollutants like per- and polyfluoroalkyl substances or PFAS. This year KWA took a big step in expanding our reach through our watershed program. There is so much to do.

2023 will bring some big changes. We have a birthday! KWA was founded by some real visionaries in 1993, so we will celebrate our 30th anniversary next year. Look for lots of fun events. We will have birthday cake to share. In January, I'll be packing up and making way for a new Executive Director. It's been such a pleasure and honor to be on this wonderful team. I'm looking forward to retirement, but I won't be far away. I will continue to support KWA and hope you will too. Please stay with us and renew your membership, give an extra donation, or consider planned giving through your retirement account beneficiary designation or your will. Whatever you give to KWA, we promise to use it wisely and do as much as we can to protect, restore, and celebrate Kentucky waterways well into the future.



Ward

Board of Directors

Executive Committee:

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Caitlin Johnson - Vice President
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Board Members:

Marcia Boone - Salt River
Linda Cowan - Salt River
Gordon Garner - Salt River
Kay Harker - Kentucky River Watershed
Travis Murphy - Salt River
Tom Vierheller - Big Sandy River

Board of Directors Profile: Marcia Boone

Marcia Boone joined the KWA Board of Directors in 2016. She served as Process Manager of the Executive Search Committee in 2016-2017, serves on the KWA Resource Development Committee, and the 2022 Executive Director Search Committee.

After teaching in various universities for 50 years, Marcia retired from her role as Leadership and Management Professor at Bellarmine University. She has also served as a consultant for business operations in corporate and higher education institutions. She has supervised staff and programs in a variety of social service agencies and nonprofit organizations.

Why is KWA's mission meaningful to you?

My dad was a Circuit Court Judge in Hartford, Kentucky when I was growing up in the 50's and 60's. He would take me on some of his trips and we always visited the various waterways-rivers, lakes, and streams throughout Western Kentucky. I grew up appreciating the beauty and usefulness of those waterways for so many reasons, from fishing to farming to recreational uses. Our KWA mission speaks to my 'love of our beautiful state' and how important it is that we preserve those waters for future generations.

How do you like to spend your free time?

I retired 5 years ago and have so enjoyed my many volunteer commitments and taking my two Chicago grandchildren to 'see the world'. I have also been very active in serving as a sponsor for our Lost Boys who came from Sudan 17 years ago, and more recently, our six Afghani men who served as soldiers helping our Americans. They came to Kentucky on October 29, 2021, and I have not had a single day since then that helping them with their needs was not a priority.

What is your favorite Kentucky waterway and why?

Rough River that flows through Ohio County. I learned to swim there, waterski there, and swing from grapevines into the river.



From left to right, Marcia, Linda Cowan (also a board member), and Marcia's granddaughter, Emery, volunteering at KWA's Wild & Scenic Film Festival.

The Ohio River Deserves Protection

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Good News and Bad News

First, the bad news: A report released in September 2022 by Environment America titled "Wasting our Waterways" noted that heavy industries including coal-fired power plants, steel and aluminum manufacturers, petrochemical plants dumped 41 million pounds of toxic pollution, including "forever chemicals" polyfluoroalkyl substances – known as PFAS, into the Ohio River watershed, more than any other in the United States in 2020. Ward Wilson, KWA's Executive Director says, "It's disheartening to hear that the Ohio River once again is at the top of this list of polluted waterways. But let's not write it off - it is still a beautiful river and deserves to be protected, restored, and yes, even celebrated."



And now the good news: The river is healthier than it's been in one hundred years. But there is much work left to accomplish. The National Wildlife Federation (KWA is the NWF Kentucky affiliate) and the Ohio River Basin Alliance (ORBA) are overseeing a process to craft a regional restoration plan to protect and restore the Ohio River, its tributaries, wetlands, and surrounding habitats in the 14-state region. The restoration plan will address serious threats to fish, wildlife, and people, including problems such as sewage contamination, mining waste, polluted runoff, and toxic pollution. The plan will also seek to



KWA and NWF Ohio River Restoration Plan listening session

reverse environmental injustices, including inadequate water sanitation services, unaffordable drinking water, and flooding concerns. The restoration plan will be delivered to the U.S. Congress in 2023, with the goal of securing new federal investments to implement the plan and to provide clean, safe, and affordable water to every person in the region. This restoration plan is modeled on successful large-scale initiatives to restore Chesapeake Bay and the Great Lakes regions. KWA held a Listening Session for the restoration plan in August, on one of the hottest and most humid days of the summer. A capacity crowd filled the unairconditioned Community Boathouse located just steps from the Ohio River, demonstrating their support and passion for the health of the Ohio River.

In addition to our work with NWF, KWA also applauds the efforts of many volunteer and nonprofit groups who are committed to the Ohio River. KWA is engaged with organizations large and small whose work benefits the Ohio River, including Salt River Watershed Watch, Rotary Club of Louisville, Ohio River Way, Payne Hollow on the Ohio, AFLOAT: An Ohio River Way of Life, Artist at Exit Zero, Albertus Gorman, and watershed groups across the state. KWA encourages our members to join us in being a voice for the Ohio River.

Devastating Flooding in Eastern Kentucky

What We Can Do

By Laura Gregory & Ward Wilson



Photo: Ben Childers Photography

In late July, upwards of 14 inches of rain caused flash flooding in Eastern Kentucky. The rains were constant and continued for days. The highest rainfall total recorded was in Knott County. Parts of Clay, Owsley, Breathitt, Leslie, and Perry Counties were also hit hard. The flooding was most damaging in the small streams in communities, and it was seen in the larger rivers, like the North Fork of the Kentucky where record flood stages were seen.

More than 100 bridges were damaged or destroyed. Numerous homes and businesses were ruined. Roads and driveways were blocked by debris or washed away. 43 lives were lost.

KWA Flood Cleanup

Flood relief isn't something KWA normally does in our scope of work, but our mission to protect, restore, and celebrate Kentucky's waterways includes addressing the impacts of waterways on their communities. Flooding brings contamination into the water, especially bacteria and hazardous materials.

In the first week after the flooding, Kentucky Waterways Alliance and Wolfe County's East KY PRIDE hosted a Flood Relief Volunteer Cleanup in Breathitt County. Forty volunteers were able to help 12 Breathitt families/homes, Riverside School, and two churches.

KWA and the volunteers donated lots of cleaning and home supplies. It was hard to see the devastation in the community, but our team was courageous, generous, flexible, caring, and tenacious.

What the Breathitt families were and are facing is incredibly devastating, sad, overwhelming, and almost unbelievable. Throwing away memories and heirlooms was heart wrenching. Throwing away flood-soaked beds and couches and furniture was heavy, dirty, and difficult. Navigating buckling floors was tricky and dangerous. Many homes didn't have water or electric so it was dark and mold was setting in to varying degrees. Some homes are already so moldy we couldn't enter without proper gear, which we did not have.



Photo: Becky Brewer

The Underlying Issues

This flooding resulted from very intense and heavy rainfall. Flooding was inevitable in such a storm. But other factors made it worse. Inside Climate News compiled past studies from the US Army Corps of Engineers and others and talked with experts to build a case that strip mining increased flood levels. It stands to reason that such a disruption of the watershed - removing tree cover, filling in streams, compacting the soils remaining - would increase runoff of water, the driver of flooding. Other land development like oil and gas wells, logging, power lines, as well as the roads associated with them, also contribute to increased runoff.

Looking at the storm itself, we know that climate change has resulted in more water vapor in the air and that causes more frequent and more intense storms. Our infrastructure was designed and built based on historical conditions, not for the current, new normal and certainly not for the increasingly extreme weather we will see in the future.

What Can We Do?

KWA has donated to the relief efforts and led a volunteer cleanup effort, but work will be continuing for months and years. We will be engaged in future relief efforts, publicizing the issues, and working toward long-term solutions to protect Kentuckians from the inevitable future floods. In my role as the Watershed Program Director and as someone who calls Eastern Kentucky home, I'm committed to KWA's work in EKY. Here are some things we are considering, based on our mission statement.

- **Restore:** We know that we need to work on a watershed basis, from the ridge top to the floodplain to the waterway, to manage flooding and flood risk. We need to restore those waterways with natural infrastructure solutions that are sustainable and resilient.
- **Protect:** We also know that we need strong protection for waterways and floodplains. KWA's Water Policy work advocates for effective regulation and funding. We are advocating for funding to address legacy impacts and the lack of infrastructure investment.
- **Celebrate:** We will celebrate the beauty and value of clean, healthy waterways - even those that sometimes rise up out of their banks and unfortunately hurt our communities. The waterways tie us together in so many ways and we will work to find a balance.

If you want to get involved, you can donate or volunteer with relief groups. There are many - we recommend starting with Appalshop and the list of groups that they have compiled. Go to appalshop.org/news/Appalachian-flood-support-resources. And please support KWA and our work focused on long-term solutions.



Morgan Burton, Lynsey and Becky Brewer volunteer in Breathitt County

Volunteers Make a Difference

By Susan Griffin Ward

Volunteers are crucial to the work of Kentucky Waterways Alliance. KWA board members, committee members, citizen scientists, local businesses, and community groups, all contribute to our ability to fulfill our mission. In 2022, volunteer support enabled KWA to hold cleanups on the Red River, Elkhorn Creek, Harrods Creek, and the Kentucky River. In addition, with the support of volunteers we conducted a Storm Drain Marking Project, held the Wild & Scenic Red River Fest and Wild & Scenic Film Festival. Special thanks to Canoe Kentucky, Friends of Red River, Creekside Landing Marina, Rotary Club of Louisville, Kentucky RiverKeeper and Red Oaks Forest School. These dedicated business and organizational partners have made multi-year commitments to KWA and clean water. To become a KWA volunteer, sign up at www.kwalliance.org/volunteer.



KWA's New Watershed Program Director Laura Gregory

Thanks to National Wildlife Federation, KWA has the funds to hire a full-time Watershed Program Director and we are so happy to report that it will be Laura Gregory. Since May 2017, Laura has been KWA's Red River Watershed Coordinator. She was ready to take on a statewide role helping other watershed coordinators and groups to do the work on the ground (and in the water) to protect, restore, and celebrate our waterways. We have big plans for our watershed program, one of the most important alliances we have. She will be developing a Kentucky Watershed Network that will support and link watershed groups to help them be more effective. We are also part of the coalitions working in the Ohio and Mississippi River watersheds to bring national attention (and dollars) to these iconic rivers. Throughout all our work, but especially in watershed management, KWA will lead with a sensitivity to environmental justice.

KWA has a long history of leadership in watershed management, including writing watershed plans and even teaming with the Kentucky Division of Water to write the guidebook on watershed planning. We've planned and we've implemented plans, always looking for ways to bring our waterways back to health for people to use for recreation, for wildlife to thrive in safe habitat, and to protect our drinking water sources.

Laura was born and raised in Denton, TX. Laura attended The University of Texas at Austin, receiving a B.A. in Geography. Since then, she has rock climbed, backpacked, biked, worked migrant farm jobs, and played music across the country. She and her husband moved to Kentucky in 2009 (and started their business, Turtle Farm Pottery, in 2017) after falling in love with the people, the place, the music, and the perfect climate for gardening.



Coming Next Year:

April – KWA's 30th anniversary

May – Wild & Scenic Red River Festival

June – KWA Annual Members Meeting

Watch our social media for updates on cleanups and celebrations of our 30th anniversary.

Kentucky Aquatic Resources Fund Update

by Ward Wilson



Ward Wilson and Judy Petersen of KWA at Barren River Dam 1 after removal

KWA and the US Fish & Wildlife Service have been working together for 14 years to conserve and recover threatened and endangered aquatic species through the Kentucky Aquatic Resources Fund (KARF). US Fish & Wildlife contributes most of the funds, some come from mitigation payments from projects that damage aquatic habitat. Here are some examples from the many interesting and important projects done through the KARF.

- Barren River Dam 1 was completely removed this year and Dam 5 on the Green was partially demolished, with work continuing into 2023. Partners include the US Army Corps of Engineers, The Nature Conservancy, and CJ Aquatic Restoration.
- Stream restoration on Straight Creek in Morgan County to mitigate for stream impacts from the Mountain Parkway Widening Project in the Licking River watershed. Partners include the KY Transportation Cabinet and Resource Environmental Solutions.
- Stream restoration on Buck Creek (Upper Cumberland basin) in Pulaski County to mitigate for stream losses in the basin and benefit 30 mussel species and 73 fish species. Partners include the KY Transportation Cabinet and The Nature Conservancy.
- Laboratory instruments and field equipment acquired for the Center for Mollusk Conservation, operated by the Kentucky Department Fish & Wildlife.



Contractors demolishing Green River Dam 5



Far left: Study map of Rockcastle watershed from the Asiatic clam research report

Near left: Asiatic clams recently consumed by a raccoon

- Establishment of a captive population of buck darter (*Etheostoma nebra*) by Conservation Fisheries, Inc. to prevent extinction of this once-widespread fish species in the Upper Cumberland basin.
- Study of the effects of Asiatic clams (*Corbicula fluminea*) on the populations of native mussels by the University of Kentucky and US Forest Service Southern Research Station.

Fostering Environmental Stewardship in the Next Generation

By Susan Griffin Ward

KWA's Beargrass Creek Environmental Education Program was generously supported by a grant from the Norton Foundation. This funding allowed KWA, along with our partners at Kentucky Association of Environmental Education (KAEE) and Louisville Nature Center (LNC), to host an in-person field trip for 8th grade Jefferson County Public School (JCPS) students and to provide professional development training to JCPS teachers.



Farnsley Middle School students study the aquatic health of Beargrass Creek

Middle school teachers from seven JCPS schools received professional development using Project WET and Aquatic Wild curriculums that included classroom learning as well as experiential learning to replicate lessons they will teach their students. Teachers received Project WET and Aquatic Wild curriculum and guidebooks to keep in their classrooms as resource for future lesson plans.



Middle school teacher professional development

Eighth graders from Farnsley Middle School had the opportunity to hike through the forest in Beargrass Creek State Nature Preserve to Beargrass Creek where they collected crawfish, mussels, dragonfly larvae, and other aquatic creatures and observed them with creek-side microscopes. In addition, in small break out groups the students studied benthic macroinvertebrate and riparian zones.

Following the field trip, Melissa Brown, an eighth-grade teacher Farnsley Middle School, wrote to tell us, "I was inspired to reach out to the Soil and Water Conservation District to help our school's Environmental Club to create a new pollinator garden on our campus. We are using the benefits of this experience to maximize student learning as well as protect an ecosystem here at our school."