

NewsStreams

Because Clean Water Can't Wait

Kentucky  Waterways Alliance
Healthy waterways.
Healthy communities.

Starting Work In The Red River Watershed

Greetings,

I'm Laura Gregory, KWA's new Red River Watershed Coordinator. I'm originally from Texas where my husband, Casey, and I met (though he is from Oregon). We initially came to Kentucky in 2008 for his Backcountry Ranger internship with the Daniel Boone National Forest (DBNF) in the Red River Gorge. We didn't necessarily intend to stay, but one thing led to another (climbing, school, music, homestead, jobs, amazing people, and a beautiful place) and we've made Kentucky our home. We've moved from Powell County to Leslie County and spent the last 4 years in Wolfe County. I'm also a Coordinator for Grow Appalachia, a non-profit, grant-funded, science and education-based organic gardening program, and these two positions fit wonderfully together.

It is safe to say that most people in Kentucky know of the Red River Gorge and many have visited the area. It is one of Kentucky's most unique treasures, drawing visitors from KY, surrounding states, and all over the world for its natural beauty, hiking, camping, renowned rock climbing, awesome rock arches and shelters, history

and archeology, flora and fauna, eco-tourism, secluded escape and, of course, Kentucky's only National Wild and Scenic River.



Laura Gregory
Red River
Watershed Coordinator

The Red River is protected but its headwaters need some restoration. The Red River Gorge Watershed Plan has been many years in the making and is available to read on the KWA website. Its creation involved many staff and volunteer hours to develop and understand the needs, desires, and issues in the watershed as well as a full year of water testing and analysis of the four main headwaters to the Red River (Swift Camp Creek, Gladie Creek, Clifty Creek, and Indian Creek). Now, DBNF has an EPA 319 grant and they have contracted with KWA to help implement the plan!

Since I became the Red River Watershed Coordinator in May, I've participated in two Red River Cleanups where volunteers and DBNF staff collected 48 tires and over 50 bags of trash! Swift Camp Creek runs through Campton, the county seat of Wolfe, and the most populated area in the watershed. It's the tributary most in need of restoration and my most immediate focus when implementing the plan. We have an upcoming community cleanup with help from Three Forks Regional Jail and East KY PRIDE. Then DBNF will help us with the last section of Swift Camp Creek.

Soon we'll offer classes to the community and in schools on how and why we protect our watershed. We're also working with East KY PRIDE on identifying and repairing failing septic systems in the watershed.

There is a lot to do, but I am up for the challenge. I am thrilled to be a member and on the staff of Kentucky Waterways Alliance! Please like our new Red River Watershed Facebook page for updates, photos, events, and more - and don't be afraid to join in and get your hands dirty!



National Wildlife Federation Annual Meeting

Bijaya Shrestha - Water Policy Director

This year, the National Wildlife Federation (NWF) held its 81st Annual Meeting in Stevenson, Washington. Representatives from 51 NWF affiliates, including three KWA staff (Ward Wilson, Jessica Kane, and I), made the trip to attend the meeting at Skamania Lodge, located in the Columbia River Gorge National Scenic Area.

The first day kicked off with a new attendees welcome session and Conservation Priority Caucuses meeting, including Climate and Energy, Private Lands, Privatization of Wildlife, Sporting, Conservation Funding, Education and Youth Engagement, Public Lands, Water, and Habitat Networks. The second day started with powerful presentations by Jon Snyder, Washington Outdoor Recreation and Economic Development Policy Advisor to Governor Jay Inslee, and Council Member Jeremiah

Julius of the Lummi Nation, both of whom emphasized the need for conservation and the importance of getting outdoors.

Day 2 was largely dedicated to discussions about the proposed resolutions at the Resolution Committee meetings. I was selected to serve as Vice Chair of the Agricultural Pollution Resolution Committee.

KWA submitted two resolutions to be considered at the annual meeting:

Nutrient Pollution

Nutrient pollution has been shown to play a significant role in causing algal blooms which cause harm to human health and contribute to hypoxic dead zones in major ecosystems. This disrupts wildlife within and dependent upon such ecosystems, negatively impacting outdoor

recreation opportunities, fishing industries, property values, and Americans' enjoyment of natural spaces. Agricultural nutrient pollution, including fertilizer leaching, runoff from fields and manure from Combined Animal Feeding Operations (CAFOs) contributes significantly to water quality issues in the Mississippi River Basin and, subsequently, the Gulf of Mexico. KWA's proposed resolution, titled "Nutrient Pollution", asked the NWF to declare the reduction of nutrient pollution in the Mississippi River Basin states to be a matter of major and continuing concern to human health and the environment. The resolution also asked the NWF to urge the Federal Agencies, Congress, as well as legislatures and officials of the Mississippi River Basin to work towards reducing nutrient pollution in the Mississippi River by utilizing the Clean Water Act, the Farm Bill,

performance based incentives, education, technical assistance, etc.

Protection and Restoration of the Ohio River

The Ohio River is the largest tributary, by volume of water, of the Mississippi River, provides drinking water for more than 5 million people, and flows through or along the borders of six states: Pennsylvania, Ohio, West Virginia, Kentucky, Indiana, and Illinois. As a result of industrial contaminants such as dioxins, PCBs, nitrate compounds, and mercury, according to the U.S. Environmental Protection Agency (EPA), the Ohio River is the most polluted river in the United States. The Ohio River also faces numerous impacts from urban runoff and agricultural activities, acid mine drainage, oil and gas extraction, emerging contaminants, climate change, and invasive species such as zebra mussels and Asian carp. KWA's proposed resolution, titled "Protection and Restoration of the Ohio River," asked the NWF to lead a coordinated effort in the Ohio River Basin to protect and restore the ecological health of the Ohio River, as has been successfully done in the Chesapeake Bay and the Great Lakes.

During the third day of the annual meeting, the Federation passed both of these resolutions unanimously, along with the following;

- Suspension of the use of neonicotinoid insecticides by the EPA
- Reform of the Renewable Fuel Standard to minimize negative impacts on wildlife habitat, reduce the ethanol mandate, and promote truly sustainable biofuels
- Promotion of agency policies that encourage farmers and landowners to adopt practices that benefit soil health
- Establishment of Wildlife Disease Trust Fund
- Support for Growing Diversity in Conservation
- Support of North Cascades Grizzly Bear Recovery
- Opposition to a Contiguous Border Wall along the U.S.-Mexico Border
- Feral Hog Toxicants
- Inclusion and Management of Fish and Wildlife as Critical Components of Wilderness Areas
- Standing with Impacted Communities to Transition away from Fossil Fuels
- Funding for Federal Agencies.

All in all, the NWF Annual Meeting was a resounding success! It was great meeting and making connections with fellow conservationists from across the country and territories. KWA will continue to work with NWF staff and affiliates to protect, restore, and celebrate our Commonwealth's waterways.





Whats The Buzzzz?

Jessica Kane - Community Engagement Director

As some of you may know from our Fall 2016 NewsStream, Kentucky Waterways Alliance has partnered with the US Fish and Wildlife Service, The Louisville Nature Center, and Aveda Earthmonth to install pollinator gardens at local schools and public park areas. Since the fall of 2016, KWA and the Louisville Nature Center have installed pollinator gardens at more than 35 local schools, 25 of which were also certified as monarch waystations. We have installed a couple of gardens at public parks and have several more plantings scheduled for the fall of 2017. This has been a wonderful partnership and we are so excited for the future with big plans ahead.

We have had the opportunity to work with some wonderful groups of kids and teachers. St. Francis of Assisi traveled to the Islamic School in Louisville to mentor and help install their pollinator garden. We had more than 70 kids from Medora Elementary spread seed for 2.8 acres of land across from the school that belongs to the Kentucky Department of

Transportation, and the West End School of Louisville has turned almost a third of their campus into pollinator habitat! These are just a few of the amazing groups we have had the opportunity to work with and we are so grateful for everyone's effort and enthusiasm.

More than 85 percent of flowering plants require an insect for pollination. Native bees pollinate an estimated 15 percent of fruit, nut, vegetable and field crops in the US with pollinators affecting \$235 billion in crops each year. It's not all dollars and percentages though. While pollinator gardens are certainly helping to restore and sustain the population, the native plants used in pollinator gardens are helping to filter runoff water before it gets into our streams and rivers. Native plants have deeper root systems that greatly increase the ability of soil to absorb and retain water and reduce stormwater runoff.

Every little bit helps, if you're thinking of planting a garden, consider a pollinator garden!

Listed below are some tips to help get you started.

- Plant native flowering plants. Learn more about the plants and resources in your region by visiting www.knps.org.
- Provide water for pollinators by filling a shallow birdbath with gravel.
- Butterflies need special "host plants" as food for their caterpillars. Planting host plants attracts more butterflies and allows them to successfully produce the next generation.
- Some plants attract more pollinators. Visit kwalliance.org for info on how to select native plants for additional pollinators you'd like to see in your garden.
- Don't use pesticides: Insects are a sign of a healthy garden, and an important food source for birds. No need to spray!



Green River Lock & Dam 6

Ward Wilson - Executive Director

The Green River in Kentucky is a mysterious beauty. People living near it say it is the deepest river in the world. When I was young, while my family was waiting for the ferry to come across, my parents told me it was bottomless. Maybe there was some truth in that because there are caves that open into the river bottom. Even the wildlife are a mystery to most: there are blind cave shrimp in those caves, strange fish like the gar in the river, and an assortment of mussels in the river bed.

Freshwater mussels are one of the Green's biggest mysteries and most interesting features. For part of their life cycle they are free swimming and latch onto fish gills, almost like a parasite. They then release, grow a shell, and burrow into the gravel to spend up to 50 years filtering the water and making new baby mussels. They need clean water and a healthy and diverse fish population. The Green River is home to more than 150 fish species, 70 mussel species, and 43 endemic species (species existing nowhere else in the world). This includes nine endangered mussel species and the endangered Kentucky cave shrimp.

Dams were built along the Green River and its tributaries in the early 1900s to allow barges to travel its waters, carrying cargo such as minerals mined in the region and passengers to see the caverns of Mammoth Cave. These dams operated up into the 1950s, and have changed the flow of the river. This affects wildlife, including fish and mussels which both need to be able to move throughout the river.

Kentucky Waterways Alliance has a special connection to the Green. For many years, our office was in the watershed and we have always had projects there. It has been a

dream for KWA and many other groups that love the Green to remove some of the old defunct dams so the river could be free flowing, the wildlife could thrive, and paddling would be safer and easier.

In 2016, we finally saw an opening. Working with The Nature Conservancy, US Fish & Wildlife Service, US Army Corps of Engineers, Mammoth Cave National Park, Kentucky Department of Fish & Wildlife, and many others, a plan was developed to remove three dams. Then, on Thanksgiving weekend last year, Green River Dam 6 failed. It was a dangerous situation that brought Corps of Engineers funding.

In April, an amazing crew of dam busters from the US Fish & Wildlife Service came in with their concrete breakers and trackhoes. They worked for two weeks from daylight to dusk, eventually demolishing the 220-foot long dam and filling a deep hole in the riverbed. The equipment operators believed there was a cave down there.

Now the river is flowing free for nine miles of the Green, part of the Nolin River and into passages of the Mammoth Cave National Park.

Just after the last blow to the dam destroyed it forever, a great blue heron flew into view from downstream, circled the now-free river, and lighted in the water to herald the restored river.

A Note From The Director

Ward Wilson
Executive Director



Happy Summer! It is a great time to enjoy the incredible beauty of Kentucky's waterways. Your staff at KWA headquarters (and now Red River Watershed) are working hard to keep those places clean and healthy, but also have some celebrations to enjoy.

In the protection category, KWA has been working to stop the release of heavy metals from coal ash ponds and landfills that are found at most power plants in Kentucky and usually near a waterway. We work to make sure existing rules are followed.

In 2006, KWA sued to get discharge permit limits for arsenic, mercury, and selenium in wastewater flowing from the LG&E power plant coal ash ponds into the Ohio River in Trimble County. Although the case was upheld by lower courts, the Kentucky Supreme Court ruled against us in April. However, we are continuing to work on this important issue. Since 2014, KWA has worked with our friends in the Sierra Club and Earthjustice to stop the uncontrolled release of heavy metals from coal ash ponds into Herrington Lake in Mercer County. Now metals have been found in fish from Lake Herrington, including selenium at levels exceeding the Kentucky water quality standard that protects fish from deformities and death. KWA and Sierra Club filed suit in July 2017 to stop the coal ash from coming into contact with groundwater and surface water, and mitigate the damage that's been done by the pollution.

These battles are worth fighting because the waterways are so special. We renewed our resolve by enjoying them in events like the Lovely Laurel River Lake Paddle Blast, a Kentucky Waterman Series paddlesport race and summer beach party. We've hosted 2020 parties across the state where we have a fun evening over food and drink to talk about our past and future, fly-fishing 101 classes, and presented our message at the Forecastle Music Festival. Follow us on Facebook, Twitter, and Instagram to keep up with our fun events. We also post on the website and send out a weekly email - sign up if you would like to be added to the email list.

Through the fun and fight, we need you with us. Your support through funding, volunteer time, and service on our board and committees is critical. Please join if you have not yet, renew if you need to, and give till it feels good to keep us afloat. Water is worth it.

Board of Directors

Executive Committee:

Gordon Garner - President
Kay Harker - Vice President

Pamla Wood - Treasurer
Hugh Archer - Secretary

Fun Events With The KWA Staff

Jeffrey Jewel - Development Director

We would like to thank everyone who joined us for our recent 2020 events in Louisville and Lexington. Turn-out was awesome in both cities and we filled Garner Narrative and the Living Arts and Science Center to near capacity. These events celebrated 20 years of leadership under our retiring Executive Director Judy Petersen and introduced our new director Ward Wilson to our members. We raised several thousand dollars and gained lots of wonderful new members and volunteers. If you missed our Lexington and Louisville events you still have a chance to join us for a fun evening in Covington on Thursday, August 31st. at Braxton's Brewing Company. The party starts at 5pm and we'll be enjoying Braxton's brews and talking about KWA's work and the support we have been getting for our work from breweries across the Commonwealth. Please join us to celebrate our new partnership with our friends at Braxton's! RSVP to Jeffrey@kwalliance.org.

Who: KWA Braxton's Clean Water | Better Beer Party

When: Thursday, August 31st 5:00-7:00pm

Where: Braxton's Brewing Company, 27 W. 7th St, Covington, KY

Why: Because Clean Water means Better Beer!



Board Members:

Scott Vander Ploeg - Lower Green River
Tom Vierheller - Big Sandy River
Bob Johnson - Jackson Purchase
John Niland - Licking River

Evan Holladay - Salt River

Marcia Boone - Salt River

Emeritus Board Members:

Beverly Juett
Frank Elsen

In Memorium: Craig Garner

Ward Wilson
Executive Director

The KWA family lost Craig Garner in late June. He was a former KWA Volunteer of the Year and Board President Gordon Garner's son. Craig was 45 and died peacefully, but unexpectedly. His family held a memorial for him where we shared stories of Craig. He had extensive skills with computer technology and gave freely of his knowledge and time to groups like KWA and friends and family. Craig was also an animal lover, especially those that were difficult to place. One story in particular showed his generosity of spirit and connection with nature: Visitors to the Garner home from Ireland mentioned that their home country had no snakes. Craig slipped out to the woods and returned promptly with a group of snakes to show the visitors, amazing everyone. Afterwards, he returned them unharmed to the place he found them.



Craig receives the KWA Volunteer of the Year award in 2012.



Darby Creek & Harrods Creek News

Tim Joice - Watershed Program Director

For the last eight years, KWA has been engaged in the Darby Creek Watershed to determine the health of the streams within it and to restore those streams to good health. Through the years, we discovered that while many stretches of the streams in the watershed were beautiful and had good riparian buffers along them, there were some water quality problems.

Bacteria from human and animal waste was identified as an issue. Additionally, nutrient and sediment pollution were concerns. The sources of pollution ranged from septic systems to agricultural and urban stormwater runoff.

Under the current grant, we originally had a goal of completing several projects, like riparian buffer plantings and rain gardens, that would help reduce the impact of

stormwater runoff on the streams of the watershed. Unfortunately, because the watershed plan took a while to gain official state and federal approval, we had a short timeline left to implement projects, so we modified our goals to focus exclusively on septic system practices.

Before the end of the grant, we pumped out seven septic systems. We also held a number of watershed community meetings and workshops to engage folks on particular topics. We're working on getting more funding to continue our work in the Darby Creek Watershed.

At the same time, we're also looking to revive efforts in the Harrods Creek Watershed, of which Darby Creek is a part. Several years ago, we partnered with Limestone Land Trust (now Bluegrass

Land Conservancy) and initiated the Harrods Creek Alliance. Much like Darby Creek, our goal was to develop a watershed plan for Upper Harrods Creek, and then implement projects that would improve the water quality in the watershed. To our fault, we let that effort stall.

However, in the last year, new information has reinvigorated our interest in the watershed. First, new monitoring data has suggested that Harrods Creek itself is no longer impaired for bacteria, as it was when our project first began. This is good news - Harrods Creek is healthier than previously shown. But watershed plans are used most often to develop a path for restoring an impaired stream back to good health. This new information suggests that instead of focusing specifically on restoration practices, we may need to focus on land conservation and protection practices.

Additionally, last year, we commissioned a fish tissue study by Eco-Tech Consultants that analyzed species composition and pollutants found in fish tissue. The study revealed concerns about legacy pollutants and newer toxic pollutants in the watershed. For example, DDT and PCBs, two pollutants that have been banned from use for decades, were found at significant enough concentrations in fish tissue that folks should limit consumption. In fact, PCBs were so high, the suggested consumption for residents is less than one fish per month.

Arsenic was also found at high enough concentrations to trigger a restriction of less than one fish meal per month from the creek. The odd thing is that arsenic is a chemical element, number 33 on the periodic table, and is naturally occurring throughout our environment. It is also a valuable nutrient to many animals, including humans, but only in trace amounts. Over the years, various arsenic compounds have been used in quite a few products, from pesticides and herbicides to poultry and swine feed products. The use of these products has led to some noted examples of arsenic contaminating groundwater, or in this instance, fish tissue.

Moving forward, we hope to reboot our work with the Harrods Creek Alliance and make a stronger push to put land conservation and protection practices on the ground. We want to ensure that the fish species in the watershed have an opportunity to return to better health over the long term, and ensure that local communities will be able to fully enjoy their resources.



Rain Barrel Workshops

Tim Joice
Watershed Program
Director

On June 4, we held a rain barrel workshop at E.P. Tom Sawyer State Park in Louisville. We had 25 participants come out and learn about the value of installing a rain barrel, how to put the barrel together, and what to do after taking it back to their homes. Keep a lookout for more workshop opportunities. If you live in the Beargrass Creek Watershed check out our Every Drop program online. This workshop was sponsored by River Network and Coca-Cola.



The Kentucky Aquatic Resources Fund

Ward Wilson
Executive Director

KWA and the US Fish & Wildlife Service work together to protect threatened and endangered aquatic species in a variety of ways. One is by sponsoring restoration projects and research with the Kentucky Aquatic Restoration Fund. There are dozens of projects that are being funded. Here are a few recent examples.

- Biological Survey of the Green River to document changes in the wildlife communities after dam removal.
- Conservation planning in the Lower Salt River basin with a collaboration of land trusts, federal, state, and local agencies.
- Population genetics study of the endangered orangefoot pimpleback mussel, a freshwater river mussel found in Western Kentucky.
- Surveys of populations of the endangered arrow darter in the Upper Cumberland river basin in southeast Kentucky.
- Development of environmental DNA (eDNA) methods to survey rivers for endangered mussels



Excavators completing the work to remove Green River Lock & Dam #6 in Brownsville.



The silent auction at our annual Catwalks For Clean Water Fashion Show.

Creative Ways To Support KWA

Doris Holland
Bookkeeper

Kentucky Waterways Alliance could not do what we do without the contribution of our members and donors. Recently we had a friend of KWA contribute a book of stamps. Another friend donated a large box of office supplies. These contributions help our work and our office run more smoothly enabling us to focus on Kentucky's waterways.

Some of the items on our wish list include

- Items for use in silent auctions
- Frequent Flyer miles for airline travel
- "Forever" postage stamps
- Gift Cards for office supply stores
- Gift Cards for Sam's, Costco and other stores
- Meeting spaces
- Printing services

Thank you for thinking of us! We are truly grateful.

KWA Ambassador Program: Seeking Applications

Jeffrey Jewel
Development
Director

How would you like to become an Ambassador for KWA?

Kentucky Waterways Alliance is starting an Ambassadors Council and we're looking for outgoing folks who love to meet people, go to events, shake hands and talk about how important clean water and healthy ecosystems are for all of us. If this sounds like you, we want to hear from you!

We will have a couple of training sessions, maybe eat some pizza and hopefully get a friendly and fun crew of volunteers that can table at events and festivals and do all kinds of fun things to help our small but hardworking staff spread the message across the Commonwealth!

For more information please email Jeffrey@kwalliance.org today!





NewsStreams

Because Clean Water Can't Wait - Summer 2017



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