

NewsStreams

Because Clean Water Can't Wait



In This Issue

Executive Director's Message
pg.02

Beargrass Creek Cleanup
pg.04

Big Branch River Access
Restoration pg.05

Mississippi River Citizen
Program pg.06

Rosslyn Red River Access/
Upper Red Cleanup pg.07

Protecting and Restoring our
Natural Heritage pg.8

Environmental Education
Partnership pg.12

Co-Immunity Project and
KWA's Beargrass Creek
Monitoring pg.14

Wild & Scenic Red RiverFest & Race 2021



By Laura Gregory

Red River Fest is an event that celebrates the Wild & Scenic Red River, the only waterway in Kentucky that has this invaluable designation from the National Wild & Scenic River System which keeps it free-flowing and protected. Red RiverFest was created in 2017 by the local non-profit watershed group, Friends of Red River (FORR) who works to protect, restore, and celebrate the Red River through cleanups, environmental

education, access, and fun events. In 2018, KWA joined in as we celebrated the 50th anniversary of the Wild & Scenic Rivers Act and the 25th anniversary of the Red River receiving the designation. 2019 was another successful event. 2020 was canceled due to COVID. Due to COVID, we will not be offering an in-person festival portion of the event in

continued pg. 3

A Message From Ward Wilson

Executive Director, Kentucky Waterways Alliance

Dear Friends,

As winter is ending and we move into spring, I am feeling relief and hope. Relief that the pandemic cases and deaths are lessening in rate, although still awful. And hope for a future when we can gather together again safely. Kentucky Waterways Alliance weathered 2020 pretty well, considering. You came through for us in a big way last year with donations and words of support. We are taking that momentum into this year. You have told us of your concern about trash in our rivers and streams and we listened. KWA will do more river cleanups this year and will build tools to help others do cleanups all across the state. 2021 will be the year KWA accelerates our environmental education program, thanks to our partnership with the Kentucky Association for Environmental Education and a grant from the Norton Foundation. And 2021 is the year when Green River Dam 5 is coming down! In 2017, we removed Green River Dam 6 in Mammoth Cave National Park. Dam 5, which is 14 miles downstream from the former Dam 6, is the last barrier to restoring 200 miles of Green River from Green River Dam Lake to the Rochester Dam in Butler County. We are going to encourage other dam removals, like the planned removal of the dam on the whitewater section of Elkhorn Creek near Frankfort. Thank you for your support. Stay safe and healthy and remember that healthy waterways mean healthy communities.



Ward



Board of Directors

Executive Committee:

Martin Hjalm - President
Gordon Garner - Past President
Kay Harker - Vice President
Pamla Wood - Secretary/Treasurer

Emeritus Board Members:

Hugh Archer
Frank Elsen
Beverly Juett
Bruce Scott

Board Members:

Tom Vierheller - Big Sandy River
Bob Johnson - Jackson Purchase
Marcia Boone - Salt River
Linda Cowan - Salt River
Caitlin Johnson - Salt River

Wild & Scenic Red RiverFest & Race 2021

continued from pg. 1



2021 including our usual local/ regional music, food, local water info, and vendors. However, we are hosting a virtual W&S Red RiverFest on Tuesdays at 6pm in July and August with topics like "Red River Fishing" with Trout Unlimited's Drew Stevens, "Paddle Safety" with Explore Kentucky Initiative's Gerry James, "Leave No Trace" with Leave No Trace Adventures, "Ask Your FS Hydrologist", and Project WET activities with KWA's Environmental Education intern, Abigail Stevens. Stay tuned on our eblast and social media for more info.

On May 15, 2021, we are offering a limited number of spaces (50) for the revival of the Historic Red River Canoe Race, part of the 4th Annual W&S Red Riverfest event. The beautiful Red River, flowing through the Daniel Boone National Forest, will be the site for the revival of the iconic and historic Red River Canoe Race! The event ran from 1967 - 1980s and was sponsored by the University County Extension Office, Powell County Jaycees and Kiwanis, and Menifee County Lions Club, as well as various United States Canoe Association Clubs. The 2021 edition will include the same course as the historic event but will add some miles because the previous launch (the iron bridge) site is no longer available for this capacity. The race will start at the heart of the Red River Gorge at Copperas Creek Canoe near Sky Bridge Recreation area, and run 29 miles to the Powell County Lions Club Park in Stanton, Ky. Participants will take part in an arduous, but rewarding journey through Kentucky's most popular natural region, the Red River Gorge - traversing through lush green valleys with narrow cliffs between them, deep canyons, and wild gorges that were formed over ages. There is also a 7 mile float from Copperas to Red River Adventure for a slower pace adventure. The race and float are part of the (Wild and Scenic) Red RiverFest 2021 family of events, a partnership between Kentucky Waterways Alliance, Friends of Red River, Explore KY Initiative and is part of The Waterman Series, a regional paddle sports racing series. The event is presented by Powell County Tourism, Wolfe County Tourism, and Kentucky River Authority. Major sponsors are Ale-8 and Red River Adventure. Patron sponsor is American Canoe Association. Race classes include Solo Canoe, Tandem Canoe, and a Kayak division. Stay tuned on KWA eblast and Facebook page for more info!

KWA Committee Openings We need your help!

We have set some big goals for KWA for the next few years and we are looking for volunteers to help us achieve them. Like many other nonprofits, we have a small team of full-time staff that runs KWA on a daily basis. The full-time staff is supported by several committees made up of board members and volunteers.

We are looking for passionate volunteers that want to join our team and help us increase our reach and impact. Most of our committees have openings but the committees with the biggest need right now include membership & fundraising, monitoring & implementing our strategic plan, and fiscal and financial oversight. Committees are currently meeting virtually, so wherever you are in Kentucky, we could use your input!

If you are interested in helping us out, please fill out a committee interest form online: www.kwalliance.org/committees.

Braving the Cold to Cleanup Beargrass Creek

By Charlotte Caldwell

Beargrass Creek in Louisville is one of Kentucky's most urban streams. While it typically receives more attention in the warmer months, on January 30, 2021, two separate volunteer groups braved the elements and gave back to the creek in their backyard. In the 10 years of Beargrass Creek



Alliance history, there has never been a cleanup in January and never two cleanups in one day in the wintertime, so we are especially grateful for the volunteers who helped clean up the creek.

The Butchertown Neighborhood Association organized their cleanup event on Beargrass Creek at the Karen Lynch Park next to the Beargrass Flood Pumping Station. Huge thanks to Joe Bringardner and Michael Logsdon of Butchertown Neighborhood Association who helped to



make this event a huge success. Four trucks were donated by volunteers and a total of seven truckloads of trash and debris were

removed. The Friends of the Forecastle Foundation

organized a cleanup in Cherokee Park near Big Rock, a popular location for recreation. A special thank you to the #naturally awesome Sylvia Holden, Kassi Cawood, Jerry Scrogam, and Liz Vail for making this happen.

To get involved with future cleanup events, visit our website at kwalliance.org/volunteer.



Friends of the Forecastle at Cherokee/Big Rock cleanup

Big Branch River Access Restoration

By Laura Gregory

Good news! Big Branch River Access (canoe/kayak launch) is getting some much-needed rehab. Kentucky Waterways Alliance has been partnering with U.S. Forest Service-Daniel Boone National Forest on a grant project. Funded by River Network, this project will update/relocate the degrading river access steps, create an official trail that leads to the new launch site, and rehab the old site and road which are currently eroding the bank into the river. There will also be wayfinding signs from the Campton and Frenchburg areas to more easily find this upper most access to the Red River.



This access allows paddlers to experience the Upper Red where the rapids are, and where the invaluable National Wild & Scenic River designation begins! Or paddle upstream from Big Branch for scenic views and fishing without the risky rapids.



The project will be complete in 2021. Make your plans to visit the site and paddle the upper Red from Big Branch to Copperas (11 miles). Make sure to do your research on water levels as this is the most dangerous section of the Red. Huge credit and thanks goes to Charlie Rowe and the Red River Gorge Trail Crew who has been making this project possible through their monthly Saturday work-outings!



Red River Gorge Trail Crew

Become a River Citizen

By Charlotte Caldwell

KWA has been partnering with the Mississippi River Network (MRN) since 2016. Through this partnership along with 58 other nonprofit organizations, KWA is able to emphasize how human activities on Kentucky soil can impact the greater Mississippi River Watershed. A majority of the Commonwealth of Kentucky is located within the Ohio River Watershed, which directly impacts our downstream neighbors in the Mississippi River Watershed. KWA's partnership with MRN allows us to work in the Salt River Watershed to increase awareness of how human activity can affect water quality. We believe that, while rivers and tributaries are critical for a healthy ecosystem and healthy communities, the land between these bodies of water is the foundation from which communities are built. Many that work, live on, and own these lands that make up the watershed do not realize their direct impact on water quality or are not able to see past barriers to changing practices that could increase water quality for the benefit of their communities. KWA looks forward to engaging community members and public officials throughout our partnership with the Network to better raise awareness for water quality concerns.



About the Network:

The Mississippi River Network is a diverse coalition of 57 nonprofit organizations and businesses that are working together to protect the land, water, wildlife, and people of the United States' greatest River. Founded in 2005, the Network has grown into a powerful collaboration of people and organizations from the River's headwaters in Minnesota to where it drains into the Gulf of Mexico. The Network implements a national public program for the River, called *1 Mississippi*.

About *1 Mississippi*

1 Mississippi is a national public program designed to educate, engage, and inspire residents to take action to protect the Mississippi River. By signing up as River Citizens, people show their commitment to the River and agree to take action on its behalf. Mississippi River Network members implement the program locally along the entire River. Since 2009, the program has recruited 20,000 River Citizens and inspired thousands of actions.

About River Citizens and taking action:

River Citizens are people who want to clean up and protect our country's greatest River. Whether in armchairs or wading boots, River Citizens protect the River by speaking up on its behalf and caring for it in simple ways that make a big difference. Together, we can protect the River for future generations. Take the first step and sign up as a River Citizen today by visiting our website www.kwalliance.org/rivercitizen

New Rosslyn, KY Red River Access

By Laura Gregory

KWA and Friends of Red River are working with Powell County Fiscal Court on constructing a new Red River canoe/kayak access point behind, and in partnership with, Shiloh United Methodist Church. The process has been fascinating and somewhat slow moving. This is my first access to coordinate from concept to reality, and I'm so proud at the progress and the community engagement. Improved public access points like this help stop the degradation of riverbanks and improves the safety and ease of people being able to access our



beautiful Red River. The access should be complete spring 2021. Come paddle from the new access at the 1184 Bridge, behind Shiloh Methodist in Rosslyn to the Maple Street Bridge (unimproved access, 8 miles) or to Clay City Park (improved access, 13.5 miles) or from Spaas Creek in the RRG to Rosslyn (unimproved access, 9 miles). Several shuttle services are available in the area.

The project is funded by Kentucky River Authority, Stanton Tourism, and Stanton Parks & Recreation.



25th Annual Upper Red Cleanup – Mothers Day Weekend

By Laura Gregory

On May 8, 2021, Russ Miller and a small group from Friends of Red River will tackle the 25th annual Upper Red River Cleanup. 2020 was canceled due to COVID, so, after taking a year off, there is bound to be more garbage than usual to remove from this Wild & Scenic section of Red River. Russ, the River Cowboy, has been organizing this ambitious cleanup since 1996 and even on years that the event has been canceled, he still gets out and does a solo cleanup. As you likely know from previous newsletter write-ups, this is one of the most intense river cleanups, covering 9 miles of Wild Red River, including a ¼ mile portage (including boats and garbage!) around the rapids. It takes all day for about a dozen dedicated volunteers.

We are met by gracious friends at Copperas Canoe Launch to help haul boats and garbage. And we always end the day with a Miguel's Pizza feast for the valiant River Warriors. Photos and video will be shared on KWA eblast and Facebook after the event.



Protecting and Restoring our Natural Heritage

by Ward Wilson

KWA and the US Fish & Wildlife Service have been working together for 13 years to conserve and recover threatened and endangered aquatic species. We do this to support the intent of the Endangered Species Act and to steward our natural heritage. We at KWA believe that the wildlife in our waterways are vital and that we should not rob our children and their children of the richness and beauty that makes Kentucky a special place.

This important work is done with funds in the Kentucky Aquatic Resources Fund (KARF). US Fish & Wildlife contributes most of the funds, but we also get mitigation payments from projects that damage aquatic habitat. KWA holds these funds and spends them in coordination with our partners at US Fish & Wildlife and many other agencies. Here are some examples from the many interesting and important projects done through the KARF.

Mussel Conservation

Kentucky rivers and streams used to teem with all sorts of mussels. Not the black mussels that are so good to eat with crusty bread, these are freshwater mollusks that have lived in our state for centuries. These water quality sentinels are a key part of stream ecology. Kentucky has over 100 species of freshwater mussels, but we used to have more. We have permanently lost 20 species and 36 more are rare or endangered.



Female purple cats-paw mussel found in Killibuck Creek 2012

obliquata obliquata). About ten years ago, this species was only known to occur in one place – Killibuck Creek in Ohio. When an interagency group of surveyors travelled to Killibuck Creek to determine population levels of the species, fewer than 20 purple cat's-paws could be found, including only a few females. In addition, the individuals were scattered over a fairly large area, which could impede the species' opportunity for natural reproduction. These factors increased the

KWA is helping prevent more extinctions and encouraging mussel conservation in Kentucky through a variety of efforts. A key part of those efforts is KARF funding KWA provides the world-class Center for Mollusk Conservation (CMC) on Elkhorn Creek near Frankfort. Dr. Monte McGregor and his team at the Kentucky Department Fish & Wildlife are experts at raising fish (hosts for part of the mussel life cycle), algae (food), and scores of mussel species that they put back into their historic habitat.

To demonstrate just how important this work is, we only have to look at the CMC's work with a mussel called the purple cat's-paw (*Etizolams*

likelihood that the species was going extinct, so a plan was developed to save the species by propagating it at the CMC using funding from the KARF and other sources. Over a period of a few years, the number of purple cat's-paws has steadily grown to a level that allowed propagated individuals to be released in other locations, including Kentucky's Green River.

Another KARF-funded mussel project that is currently underway is the study of the genetics of the Kentucky creekshell (*Villosa ortmanni*) that occurs the Green and Cumberland river drainages. This is a collaborative project with the Office of Kentucky Nature Preserves, Virginia Tech, and US Fish & Wildlife Service. The objective is to understand the diversity of the creekshell and closely related species so that the U.S. Fish and Wildlife Service can evaluate its status to determine if listing the species as threatened or endangered under the Endangered Species Act is warranted.

Fun Fact: Johann Boepple, the man who launched the U.S. industry of making buttons from freshwater mussel shells, died of an infection resulting from cutting his foot on a mussel called the pink heelsplitter.

Fish Conservation

We have many fishes in Kentucky waterways. There are the game fish, species like largemouth bass, bluegill, and catfish that we love to pursue for recreation and table fare, but these comprise only 10 percent of the species in our waters. The others, typically referred to as "not-game fish" are a highly diverse group, but they are all important and need healthy watersheds to survive. KWA is Kentucky's leader in the stewardship of these waterways to help all of these species.

Let's take a look at one group of highly specialized species – the darters. Several of Kentucky's rarest fishes are darters – among them the relict darter, Cumberland darter, and buck darter. They get their name because they are small, bottom dwelling species that "dart" from place to place in the stream. Some are drab, exhibiting perfect camouflage that matches the colors of the creek bottom, but others, like the Kentucky arrow darter (*Etheostoma spilotum*) are beautiful fish that display many colors, especially during breeding season.



KWA's "I Love Clean Water" sticker features the beautiful Kentucky arrow darter, drawing by Jill Hicks

Protecting and Restoring our Natural Heritage *continued*



Hell Creek fish survey

KWA has collaborated with the US Fish and Wildlife Service and other partners for many years to help support conservation of Kentucky arrow darters in the upper Kentucky River watershed in southeast Kentucky. For example, in 2019, KWA and US Fish & Wildlife Service biologist Dr. Michael Floyd went to Hell Creek in Lee County to look for them on property owned by the Red River Gorge Climbers Coalition. We were happy to find them there in abundance! Also, the KARF has funded a variety of important scientific and conservation efforts for the species. These efforts have included movement and life history research undertaken by Eastern Kentucky University, distributional surveys for the species by the Office of Kentucky Nature Preserves (formerly the Kentucky State Nature

Preserves Commission), and development of captive propagation techniques by Conservation Fisheries, Inc.. Our most-recent KARF-funded project is a range-wide genetic analysis of the species by Austin Peay State University in Tennessee that will inform future recovery actions for the species. Collectively, these projects form the basis for future monitoring and management of the species to ensure that this beautiful Kentucky species remains with us.

Stream and Wetland Restoration

Our biggest projects restore degraded streams and wetland habitats to improve water quality and wildlife habitat. Streams that are unhealthy due to erosion or other man-made impacts are rebuilt with new riffles and pools, woody debris, and more connection to their floodplains. It's a complex process of advanced engineering and construction, usually in remote areas, but in the end, it's so rewarding



Stonecoal Branch in the Licking River watershed

to see life come back to these waterways. These projects involve many partners, from the Stream Institute at the University of Louisville to design firms like Beaver Creek Hydrology to skilled construction operators. One of our successes is the Stonecoal Branch restoration on US Forest Service land in the Licking River watershed. This project is funded by the KARF and help to restore the ecological function of over six stream miles.

Dam Removal

If you love rivers, you want them to run free. It is better for the wildlife, for the water quality, and for the people that boat and fish in them.

In 2017, KWA and our Dream Team (US Fish & Wildlife Service, the US Army Corps of Engineers, KY Fish & Wildlife, Mammoth Cave National Park, and The Nature Conservancy) removed Lock and Dam 6 on the Green River.

This obsolete structure was a barrier to fish and mussels, as well as to paddlers. Now that it is gone, the river is returning to a more natural state and it should even improve the habitat for endangered Kentucky cave shrimp and cave fishes within Mammoth Cave. Later this year, the Dream Team is coming back to the Green to remove Lock & Dam 5 – watch for more news on that in our email and social media channels. KWA promotes removing dams from streams where they are obsolete and destructive to stream health.



Green River Lock and Dam 5



Green River Dam 6 demolition 2017

A Partnership to make Environmental Education Better

By Abigail Stewart

KWA's current Environmental Education Leadership Corps (EEL Corps) member, Abigail Stewart, has one of our most collaborative roles because she shares half of her time with KWA with our partners at the Kentucky Association for Environmental Education (KAEE). KAEE is one of the country's oldest associations supporting environmental education and the first affiliate of the North American Association for Environmental Education. KAEE includes people from all walks of life--teachers, administrators, government and agency personnel, business and industry representatives, and private citizens. KAEE works with members and partners to



bring sound environmental education to all Kentuckians and works to ensure that education about the environment will be taught in every classroom in Kentucky. Environmental education provides the skills necessary for people of all ages to make intelligent, informed decisions about the environment and how they can take care of it. Environmental Education builds human capacity, influences attitudes, and can lead to action. Most importantly, it can help people make informed decisions about the environment that lead to life-long stewardship and a more sustainable society.



Ashley Hoffman

Abigail also works with an amazing staff at KAEE. Ashley Hoffman has served as the Executive Director of the Kentucky Association for

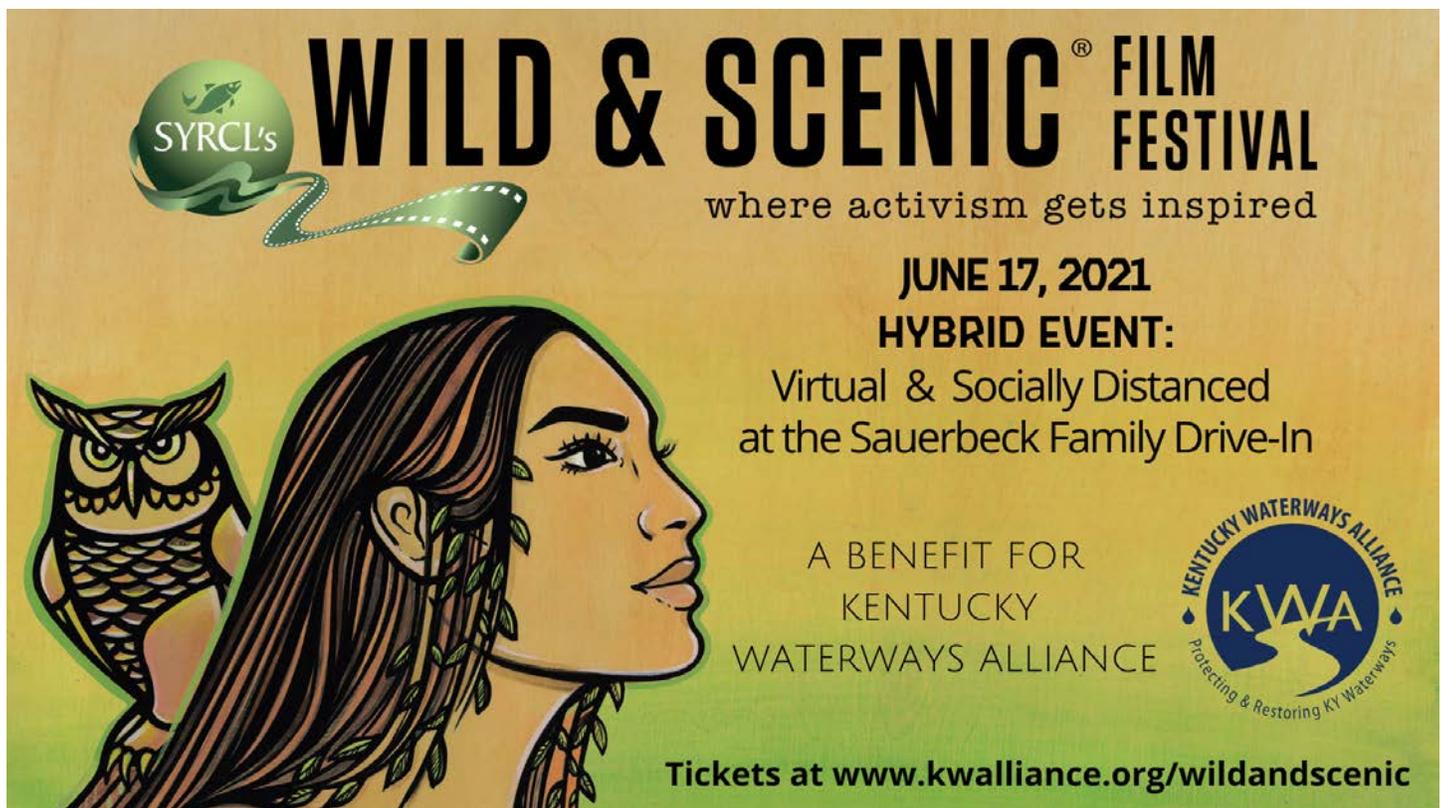
Environmental Education since 2010. She holds a B.S. degree in Wildlife Ecology and Conservation from the University of Florida and a Masters in Nonprofit Administration from North Park University School of Business and Nonprofit Administration. She also currently serves as the North American Association for Environmental Education (NAAEE) Affiliate Network Chair, as a member of the NAAEE Advisory Council and as the Executive Director of the Southeastern Environmental Education Alliance (SEEA). The Affiliate Network represents the state, provincial and regional environmental education organizations of NAAEE. The SEEA is a collaboration of environmental education organizations in the



Brittany Wray

eight southeast states (AL, FL, GA, KY, MS, NC, SC, and TN). Ashley is a Certified Professional Environmental Educator and a certified member of the NAAEE Guidelines Trainers Bureau. Brittany Wray has served for the Kentucky Association for Environmental Education since 2016. She holds a B.S. degree in Middle Grades Education with a concentration in math and science. In May 2016 she earned a master's degree in Middle Grades Education with a concentration in Environmental Education. Brittany earned her Environmental Education Endorsement through Eastern Kentucky University. She now serves as the state co-coordinator for Project WET, and as the state coordinator for the Leopold Education Project and Project WILD.

This partnership has allowed KWA to expand and has allowed Abigail to lead many workshops with KAEE. These workshops focus on KAEE facilitators, both formal and nonformal educators, and younger individuals. For example, our workshop in February will be focus on presenting Project WET and Project Learning Tree curriculum to formal and informal educators in a virtual setting. You can visit KAEE's website for the calendar of all of the events to be on the lookout for. If you are a teacher or someone hoping to hone in on their facilitation skills, visit kaee.org to learn about upcoming opportunities and workshops. We look forward to partnering with KAEE in new ways and are excited for the existing partnerships.



The poster features a green and brown color scheme. At the top left is the SYRCL's logo, which includes a globe and a film strip. The main title 'WILD & SCENIC' is in large, bold, black letters, followed by 'FILM FESTIVAL' in a smaller font. Below the title is the tagline 'where activism gets inspired'. The date 'JUNE 17, 2021' and the event type 'HYBRID EVENT: Virtual & Socially Distanced at the Sauerbeck Family Drive-In' are listed. The text 'A BENEFIT FOR KENTUCKY WATERWAYS ALLIANCE' is positioned above the KWA logo, which is a circular emblem with 'KWA' in the center and 'Protecting & Restoring KY Waterways' around the bottom. The bottom of the poster features the text 'Tickets at www.kwalliance.org/wildandscenic'. On the left side, there is a stylized illustration of a woman's profile with long hair and a beaded necklace, and an owl perched on her shoulder.

SYRCL's **WILD & SCENIC**[®] **FILM FESTIVAL**
where activism gets inspired

JUNE 17, 2021
HYBRID EVENT:
Virtual & Socially Distanced
at the Sauerbeck Family Drive-In

A BENEFIT FOR
KENTUCKY
WATERWAYS ALLIANCE

Kentucky Waterways Alliance
KWA
Protecting & Restoring KY Waterways

Tickets at www.kwalliance.org/wildandscenic

The Co-Immunity Project and KWA's Beargrass Creek Monitoring

by KWA Research Intern Cullen Hunter



The team at the University of Louisville The Christina Lee Brown Envirome Institute is leading the Co-Immunity project for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which is the virus that causes COVID-19. The project has 4 parts: 1.) Clinical COVID-19 prevalence assessment of individuals; 2.) Prevalence assessment of individuals via clinical antibody testing; 3.) Wastewater monitoring; and 4.) Surface water monitoring.

The project is a partnership between the Envirome Institute, Louisville/Jefferson County Metropolitan Sewer District (MSD), and KWA. KWA recently hosted a webinar sharing the results of the surface water sampling in Beargrass Creek for SARS-CoV-2.

The University of Louisville Co-Immunity Project uses wastewater-based epidemiology to monitor the presence of SARS-CoV-2 in Louisville's sewer system. When people are infected with the SARS-CoV-2 virus they shed the virus through stool even if they are asymptomatic. Stool then enters the sewer system, resulting in the presence of the virus in wastewater. The wastewater laboratory method

was developed by the University of Louisville, learning from other work nationally and globally while adding in their own innovation. The laboratory method uses an RNA extraction and detection of SARS-CoV-2, using processes nearly identical to those applied to clinical nasal swab samples. However, it is not a determinate of infectious virus. KWA used the same wastewater SARS-CoV-2 laboratory methods for the surface water monitoring.

The Envirome is sampling weekly at 12 sewer neighborhoods which cover most of Jefferson county, and each of the 5 treatment facilities operated by Metro Sewer District for a total of 17 sites for SARS-CoV-2.

Dr. Rochelle Holm of the Envirome explains that in Jefferson County, the sewer system has been in operation for over a century and combines rainwater runoff, industrial wastewater, and household sewage into the same pipes among most of the network. These older systems were originally constructed in a gravity design that allowed surface release when flows exceed the capacity of treatment facilities, such as during high rainfall events. The connection of the wastewater project to KWA's sampling in Beargrass Creek starts where sewers spill over into 'surface waters' (streams and other bodies of water) during heavy rain events, also called combined sewer overflow. These overflows can present issues even without the threats of COVID-19. These overflows contain human waste, and anything else that has made its way into the sewers including pesticides, pharmaceuticals, and illicit drugs that can pollute our waterways.



Beargrass Creek is just one of the receiving bodies of water around Jefferson County, and in the two locations that Dr. Tamara Sluss, Director of the Sustainability Masters at the University of Louisville, and KWA intern and UofL masters student, Cullen Hunter, sampled. Each Beargrass Creek sample indicated inputs of human waste. However, only one sample contained detectable levels of SARS-CoV-2 genetic material. These findings confirm that there are inputs of untreated sewage into our waterways, and that is reason enough for concern.

MSD takes on a huge responsibility of mitigating these overflows throughout Jefferson County (learn more about ProjectWIN here: <https://www.msdpjwin.org>), however, every citizen can also take steps to reduce sewer overflows from heavy rain events. One of the biggest factors that influence the overflows initially is the amount of runoff from the surrounding land in the watershed. Impervious surfaces

like parking lots and roofs of buildings force rain to quickly move over surfaces and into storm drains instead of soaking into the ground gradually in areas like parks or gardens that allow water to seep through the ground. Some ways individuals can help reduce the amount of stormwater are planting rain gardens and waiting to run the washer or dishwasher until after big rain events (you can find out more about rain gardens here: <https://www.kwalliance.org/every-drop-a-stormwater-capture-program.html> and <https://louisvillemad.org/howyoucanhelp/raingarden>).

We know that due to the combined sewer overflow design of the Jefferson County sewer system, what we put in our sewer is ending up in the waterways during high rainfall events. To date, wastewater is not a known transmission pathway for COVID-19, but the threat is not removed until we don't have sewer overflow into

waterways. As always, before wading or swimming in any body of water in Jefferson County, check for a water quality advisory from MSD's website (<https://louisvillemad.org>). In general it is best to wait 48 hours after a big rain event to utilize the waterways. KWA continues its monitoring in Beargrass Creek for SARS-CoV-2, as the team is dedicated to communicating the results, and giving recommendations for recreation in those areas.

We thank our sponsors the Newman's Own Foundation, The Christina Lee Brown Envirome Institute, Owsley Brown II Family Foundation, Louisville/Jefferson County Metropolitan Sewer District (MSD), and the University of Louisville's Sustainability Program.



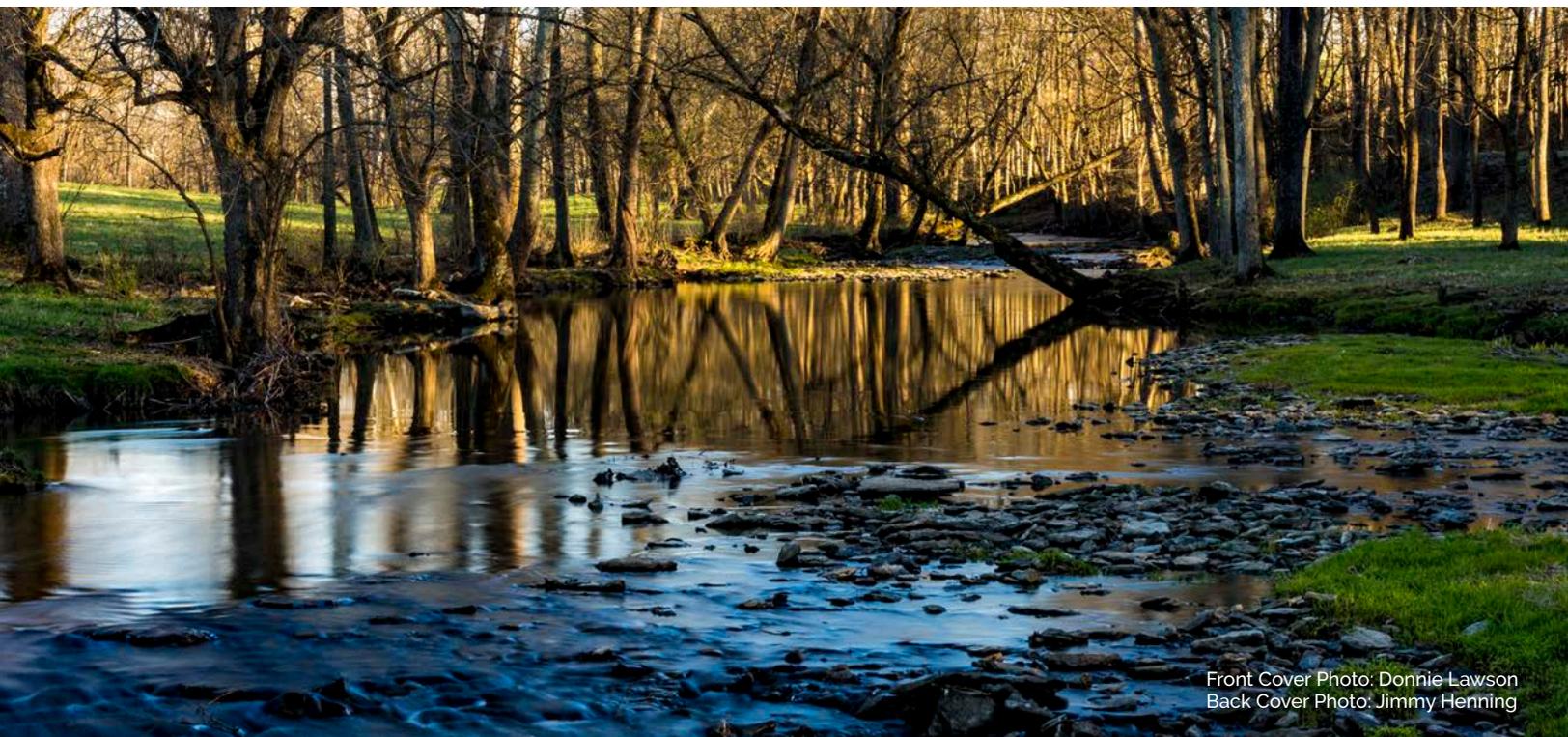
Kentucky Waterways Alliance
330 North Hubbards Lane
Louisville, KY 40207

Non-Profit
U.S. Postage

PAID

Louisville, KY
Kentucky Waterways
Alliance, Inc.
PERMIT #1505

PROOF



Front Cover Photo: Donnie Lawson
Back Cover Photo: Jimmy Henning

NewsStreams

Because Clean Water Can't Wait - Spring 2021