



# River Raisin

WATERSHED COUNCIL

Partner · Protect · Preserve

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## PFOS & PFAS by Meija Knafel



Here at the River Raisin Watershed Council we've been fielding some springtime calls from residents of our watershed who want to know: "What's going on with PFAS in our region?" These chemicals have been a major focus for water quality advocates in recent years. In this article we'll cover some basics on what these pesky pollutants are, where they come from, and what you can do about them.

Firstly, PFAS is actually an acronym that takes the place of "perfluoroalkyl" and "polyfluoroalkyl" substances. These organic chemicals have been used since the 1940's in industrial and commercial products to provide resistance to heat, water, and oil. This includes but is not limited to; fire-fighting foams, as water and stain-resistant coatings for furniture, carpeting, footwear, cookware, textiles, and paper food packaging, and even in metal plating.

However, unlike other organic chemicals, PFAS do not break down easily in the natural environment using the typical natural processes. They tend to linger, and can accumulate over time in the land and water, or in our bodies. These accumulated PFAS can hurt us, or plants and animals if they are exposed to them continually over time. Some studies suggest PFAS can cause our hormones to stop functioning properly, or weaken our immune systems. PFAS can enter our lands and waters from improper disposal, or stormwater runoff carrying it from a source location.

PFAS are often distributed in the land and water in particles we can't see and that can't harm us if we touch them, but can sometimes accumulate into a PFAS foam. Foam can appear year-round on lakes and streams as long as there is open water, and most foam you might encounter is naturally forming due to wind and wave action. According to the Michigan PFAS Action Response Team "PAS-containing foam tends to be bright white in color, lightweight and may pile up along shores or blow onto beaches. Natural foam without PFAS is usually off-white and/or brown in color, often has an earthy or fishy scent, and tends to pile up in bays, eddies or at river barriers such as dams." Residents can report suspected PFAS foam by calling the Michigan 24-hour Pollution Emergency Alert System (PEAS) hotline at 800-292-4706, and should avoid touching (*continued*)

### MISSION

To inspire behaviors that promote stewardship, improve water quality, and encourage public participation to protect, preserve, and enhance the River Raisin Watershed

### RRWC seeks volunteers and members to achieve our mission!

Please contact us to find out how you can help with or participate in the various activities outlined in these pages.

Our success in improving water quality in the River Raisin Watershed depends on you!

Contact us by phone:  
(517)264-4754

Contact us by email:  
admin@riverraisin.org

## PFOS & PFAS by Meija Knafl (continued)

(continued) foam that may be contaminated.

PFAS have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminant on the national landscape, and many contaminated sites are being treated and managed. The only known site in the entire River Raisin Watershed is the Adrian Landfill, where PFAS is contained onsite with a pumping and treatment system. PFAS have been successfully treated at this site since 2019.

Current treatment and management methods include activated carbon filters, reverse osmosis, and ion-exchange treatments. Residents who use a private well may wish to understand their risk or test their water for PFAS. You can call your local health department or the Michigan Department of Health and Human Services Drinking Water Hotline at 844-934-1315. They can help you understand potential risks based on where you live, and give you more information on how to test your water.

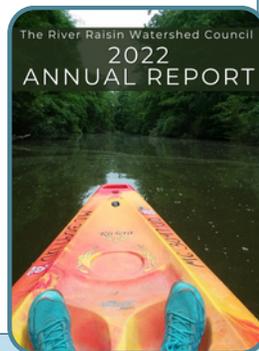
PFAS may be a persistent problem in many watersheds, but with knowledge and resources you can safely continue to recreate and enjoy all the beauty the River Raisin has to offer with confidence. For more information, please use the resources indicated in this article, or feel free to reach out to staff from the River Raisin Watershed Council.

## 2022 ANNUAL REPORT

Our 2022 Annual Report is live on our website!

It includes program and grant highlights, our year end financial summary, exciting staff updates and a letter from our Director, Steve May.

View it at [www.riverraisin.org](http://www.riverraisin.org)!



## ADOPT-A-STREAM by Carley Kratz

The Adopt-A-Stream program is proud to be celebrating over 20 years of monitoring water quality by looking at aquatic macroinvertebrates or “bugs” throughout the River Raisin Watershed.



Sampling macroinvertebrates has continued each fall and spring for the past 20 years, with 15 locations sampled regularly. Volunteers use the sweep-net method to sample from the benthos, banks, overhanging vegetation, rocks and woody debris. Macroinvertebrates are preserved and later identified at “Bug ID Day” with the help of Dr. Jim Martin, an Entomologist from Adrian College. Data is analyzed using the new Michigan Clean Water Corps (MiCorps) Water Quality Index rating system. Overall trends show that water quality has generally been stable through time. It is possible that some of the trends, or lack thereof, are impacted by the stream height during sampling. It is usually easier to search in the fall when water levels are historically lower than in the spring when flooding tends to occur. This program is always in need of more volunteers to help search the stream, preserve “bugs” on shore, or sort samples in the lab. Please contact us to see how you can get involved!

- Carley Kratz, Ph.D.

## FOLLOW US ON SOCIAL MEDIA



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@riverraisinwc



iNaturalist:  
@RiverRaisinWatershedCouncil



YouTube:  
@River Raisin Watershed Council

**BROOKLYN DAM: TOP FIVE Q&A's with Meija Knafel & Chris Frieburger****1. Is Brooklyn Dam publicly or privately owned?**

Brooklyn Dam is a privately owned dam. As a privately owned dam, the dam owner is responsible for ongoing monitoring and maintenance as long as the dam remains in place.

**2. Will other dams be required to be removed as a result of the modification of the Brooklyn Dam?**

No other dams will be required to be removed as a result of the Brooklyn Dam Connectivity Project. The determination to remove or modify a dam is solely the decision of the dam owner.

**3. Is fishing expected to improve?**

Yes, fishing is expected to improve. The Michigan Department of Natural Resources (MDNR) has identified the River Raisin in Brooklyn as a Priority Habitat Conservation Project with target species being Smallmouth bass and northern pike. Modification of the Brooklyn Dam is expected to increase public safety, recreational benefit for anglers/kayakers/canoeist and reconnection of high-quality critical habitat. Reconnection of this system addresses habitat limiting factors and allows for the potential access of 44 upstream miles of aquatic organism passage. The MDNR, identified that the Brooklyn Dam has eliminated and fragmented the most productive fish habitat in the River Raisin. MDNR states that, the total length of the River Raisin is 149 miles with 92 miles or 62% being low gradient at less than 3 feet per mile. The highest average gradient can be found from the headwaters to Tecumseh at 5.7 feet per mile. Fish and other aquatic animals are typically most diverse and productive in river gradients between 10 and 70 feet per mile. This highly desirable gradient class is found only in 7.5 miles or 5% of the main stem in the headwaters a portion of which is localized in Brooklyn. River fisheries are expected to improve as a result of dam modification and associated stream restoration.

**4. Will the River Raisin dry up upstream of Brooklyn Dam?**

Modification of the Brooklyn Dam as part of the Connectivity Project will not result in the River Raisin drying up and disappearing upstream of the dam. Flows will continue to be received from the River Raisin through Vineyard Lake and Kedron Drain, as well as groundwater recharge, which will contribute to flow just like all other naturally occurring rivers in Michigan.

**5. Will modification of the Brooklyn Dam as a part of the Connectivity Project result in downstream flooding?**

Modification of the Brooklyn Dam will not result in downstream flooding. The Brooklyn Dam is operated as a run of river facility which means that the amount of water that enters the pond is equal to the amount of water leaving at the dam. The Brooklyn Dam was built to provide for hydroelectric power, not for flood storage, therefore does not have adequate storage or operational capability to provide for significant flood control.

**UPCOMING EVENTS****MAY**

Manchester Canoe/Kayak Race | 21st

**JUNE**

Free Fishing Weekend | 10th & 11th

**JULY**

Blissfield River Raisin Festival | 13th - 15th  
Farmer Led Group Annual Meeting | 20th  
Lenawee County Fair | 23rd - 29th

**AUGUST**

Monroe River Clean Up | 12th

**SEPTEMBER**

Great Outdoor Jamboree | 10th  
River Raisin Institute "The Gathering" | 16th  
Artalicious | 16th & 17th  
Clinton Fall Festival | 22nd - 24th

## RRWC UPDATES

We've moved to a new location in Tecumseh! You'll find us at 804 N. Evans St. in the rustic barn to the right of the parking lot next to the AJ Smith Recreation Center.

**OUR OFFICE HOURS ARE:**  
 Monday & Wednesday | 2pm-6pm  
 Tuesday | 10am-1pm  
 Thursday | 9am-1pm  
 Friday & Sunday | Closed  
 Saturday | 10am-2pm

*Come stop by and say hello!*



## EXECUTIVE COMMITTEE & STAFF

Harry Sheehan, Executive Committee Chair  
 Chief Deputy Water Resources Commissioner  
 Representative, Washtenaw County

John Calhoun, Vice Chair  
 Columbia Township Representative  
 Jackson County

Sybil Kolon, Secretary  
 Manchester Township Representative  
 Washtenaw County

KZ Bolton, Treasurer  
 Lenawee County Commissioner  
 Representative, Lenawee County

Trudi Cooper, Director  
 Sharon Township Representative  
 Washtenaw County

David Hoffman, Director  
 County Commissioner  
 Representative, Monroe County

Phil Kittredge, Director  
 Cambridge Township Representative  
 Lenawee County.

Stephen May, Executive Director  
 steve.may@lenawee.mi.us

Meija Knafel, Outreach Coordinator  
 rrwc@lenawee.mi.us

Lydia Lopez, Water Stewardship Coordinator  
 riverraisin001@gmail.com

Benny Woith, Administrative Coordinator  
 riverraisincoordinator@gmail.com

Isabelle Uganski, Administrative Assistant  
 riverraisinassistant@gmail.com

## STAFF UPDATES

We'd like to welcome **Benny Woith** to our team! She started as our Administrative Coordinator in December of last year and has already been a great help. She's already updated our website, provided new portraits of our staff and more. We're excited she's a part of the RRWC family!



You might remember **Isabelle Uganski** from past issues of Streamlines as an intern but now she's on board with us part-time as our Administrative Assistant. She's been a huge help with our social media, copy-writing and assisting in other jobs around the office. We're happy to have her as part of the team!

