



CLINTON RIVER WATERSHED COUNCIL

SUMMER/FALL 2021

RIVER NEWS

CRWC TURNS 50!

Take a walk through key highlights of the past 50 years. **p6-7**

HEAVY RAINFALL EVENTS

Extreme rainfall impacts on the watershed and how to manage rainfall intensity at home. **p9**

RIVERSAFE LAKESAFE

Become certified and take an active role in protecting water quality. **p10**

KICKING OFF OUR 50th ANNIVERSARY CELEBRATIONS



PROTECTING
CLEAN WATER
FOR FIFTY YEARS





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Letter from the Director

My apartment overlooks a floodplain on a horseshoe bend on the Clinton in Rochester Hills. It's a lovely spot and I feel lucky to have a view of the river we are working to protect—both at home and at work.

When I'm at home, I don't have to see the river or the online gauges, to know there might be flooding downstream. How? I can hear the dull roar of the water rushing past and see standing water start to appear in the grassy area across from me.

It's the same at the office—there is a chunk of granite in Avon Creek that I can see from the deck. If the levels hit the darker half of the rock and stay there for a while, flows downstream will be heavier and more prolonged.

We all need to work harder to keep stormwater from reaching the river in the first place. Each of us can make a difference. For tips you can use at home and at work visit crwc.org/resources.

See you on the river,

Anne Brasie
Executive Director



CLINTON RIVER WATERSHED COUNCIL

WaterTowns® Update

There is an abundance of activity with our WaterTowns® communities this year. To begin, we are welcoming the Cities of Pleasant Ridge and Keego Harbor into the program. These are two wonderful communities to work with and we are excited to help them plan future green stormwater infrastructure (GSI) projects. They are quite similar in size (land areas of about 0.5 square miles); however, each have very different challenges and opportunities for GSI.

The City of Pleasant Ridge is nestled along the Woodward and I-696 corridors and is challenged with long stretches of impervious surfaces from these major thoroughfares. The City recently received funding to implement their Woodward Streetscape Project, which will incorporate green infrastructure along their business district, and also includes a two-way cycle track that links bike routes to Main Street in Royal Oak.

The WaterTowns® GSI

planning process will help envision additional GSI throughout neighborhood corridors and the municipal office.

The City of Keego Harbor is cradled between Cass and Sylvan Lake. These lakes offer unique opportunities to residents and visitors, and water quality protection is vital for the community and surrounding cities. We are working with several council members and the parks and recreation committee to find ideal locations for potential GSI projects.

The main goals are to help capture and filter stormwater runoff before it enters the lakes, while enhancing the beauty of parks and beach access sites.

For more information on WaterTowns®



CRWC.ORG



WaterTowns® Update Continued

Three WaterTowns® communities (Clinton Township, Independence Township, and Madison Heights) recently completed green infrastructure projects funded by SEMCOG through the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative.

Clinton Township redesigned Normandy Park, increasing accessibility and adding native prairie vegetation to the landscape. Independence Township completed installation and planting of three large bioswales at Brady Lodge in Bay Court Park. Madison Heights just completed construction of three rain gardens at their City Center Park. Planting will be completed this fall.



Independence Township, Brady Lodge, during (left) and after (center) construction.



*Madison Heights, Civic Center Park,
during construction.*



*Madison Heights, Civic Center Park,
during construction.*

RIVER RESTORATION PROJECT AT YATES COMPLETED

Thanks to a 2018 Aquatic Habitat Grant from the Michigan Department of Natural Resources, this project restored 500 feet of eroded bank and created designated angler access locations. We would like to thank the many partners and contributors to this effort for their dedication to the Clinton River!

Construction was completed in August of 2021. We will continue to collect environmental monitoring data into the summer of 2022 to assess the ecological impacts of this project.

We are currently coordinating follow-up native plantings for habitat and bank stability.

Questions regarding this project or other river restoration efforts throughout the watershed can be directed to Eric Diesing, Watershed Ecologist, at eric@crwc.org.

We hope to see you on the river soon!

Photos: Soil lift construction (right) and Rock ledge angler access on the banks of the Clinton River (bottom)



Clinton River Area of Concern

Guided Kayak Tour

CRWC staff hosted the first habitat restoration project tour with help from Macomb County Public Works and the Clinton River Public Advisory Council. Paddlers traveled the Clinton River Spillway while learning about the \$4 million habitat restoration project that was completed in 2019. This project was one of eleven habitat projects completed through the Area of Concern program.

Participants learned about the techniques used to create five off-channel habitats and how these areas will benefit the ecosystem of the Spillway for decades to come. Traveling the Spillway by kayak allowed attendees to get an up-close experience with the many native plant and animal species

that call this man-made tributary home. This project was funded by the Michigan Department of Environment, Great Lakes, and Energy and the United States Environmental Protection Agency's Great Lakes Restoration Initiative.

We are currently planning our next project tours!

Please join us to see all the work that has been done throughout our watershed. Be on the lookout for upcoming events on our website and emails!



Celebrating 50 Years of the Clinton River Watershed Council

1960's

In the 60's the Michigan Department of Natural Resources conducted a fish survey that found no living fish from Lake St. Clair to the City of Pontiac



Today the Clinton River supports an urban steelhead fishery, Paint Creek supports a trout fishery and Lake St. Clair is a world renowned sport fishery.

1971

The Clinton River Watershed Council was established as a 501(c)3 non-profit organization.



1992

Stream Leaders launched. Stream Leaders is a place-based, outdoor education program that provides middle and high school students with hands-on experience in water quality monitoring, data interpretation and community action.



1978

The Clinton River watershed was designated as an Area of Concern (AOC) under the Great Lakes Water Quality Agreement. This includes the entire watershed, the Clinton River and its tributaries, the Spillway, a two-mile long canal that connects the Clinton River to Lake St. Clair, and the nearshore area of Lake St. Clair between the Clinton River mouth and the Spillway outlet. More than \$43 million dollars from the Great Lakes Restoration Initiative (GLRI) have been used for restoration projects throughout the Clinton River watershed in pursuit of being delisted as an AOC.

1998

River Day is a community event that encourages appreciation and recreational use of the waterways of the Clinton River and Lake St. Clair. Events coincide with Michigan's Free Fishing Weekend.



2001

First Clinton Cleanup,
an annual watershed
wide cleanup event.



2001

CRWC and local fishing organizations established the Clinton River Coldwater Conservation Project (CRCCP), a volunteer-based program that works on projects to enhance and restore Paint Creek and parts of the Clinton River Main Branch. The project's efforts were recognized nationally by Trout Unlimited in 2008.



1998

Adopt-A-Stream citizen science water quality monitoring program began. This program is a volunteer-based initiative that empowers community members to protect local streams and rivers by monitoring water quality.



50 Year Timeline

2003

The first annual winter Stonefly Search.



2013

WaterTowns® program was launched, encouraging recreation, placemaking and green infrastructure. Currently there are 28 WaterTowns® communities.



2020

The Clinton River was designated an official Water Trail by the Department of Natural Resource. The Clinton River Water Trail offers experiences for all levels of paddling.

2012

Weekly Clean held its first cleanup.



2018

First Trash Runs! Volunteers paddle the Clinton River picking up debris and trash along the way.



Today!

With the help of 300 volunteers CRWC monitors 50 sites along the Clinton River as part of Adopt-A-Stream.

Since the inception of Weekly Clean, we have hosted more than 350 cleanups with 3,600+ volunteers collecting nearly 100,000 pounds of trash.

More than 64,500 students across the watershed have been involved in Stream Leaders.

Stream Leaders

Stream Leaders is a place-based, outdoor education program that provides middle and high school students with hands-on experience in water quality monitoring, data interpretation and citizen action. Thousands of students have participated in the program since its inception in 1992. Data from all participants have been compiled, distributed back to schools and saved by CRWC for reference.

Typically taking place in-person during the school day, Stream Leaders has historically operated in tandem with local schools. With the desire to reach a broader audience, provide virtual opportunities and expand upon the success, we are re-imagining the program. We are exploring new partnerships with organizations such as the Huron-Clinton Metroparks, local libraries and homeschool groups to bring Stream Leaders to more people than ever before. This July, we had the opportunity to host a Stream Leaders event at Stony Creek Metropark with the help of the amazing park staff.



Join Stream Leaders!

If you would like to schedule a Stream Leaders program with your school, community group, or any other organization, please email katie@crwc.org.

Heavy Rain & Green Infrastructure

Nature is awesome. Every aspect of our lives is connected to it. Inevitably, we are subjected to the power that hides within nature – experiencing its forces and gifts in different ways. For instance, watching whitecaps dance across the lake can be mesmerizing. Watching rivers or lakes swell and rise closer to our streets, homes, or up through our floor drains, can be terrifying.



Whole cities and neighborhoods have been shocked by extreme weather events fueled by climate change and worsened by aging infrastructure. Working to make neighborhood or community landscapes more adept at recovering from these severe events means finding ways to reestablish natural environments, creating more of a balance between gray and green spaces. We can begin to imagine this by looking closely at how rainwater is handled by natural ecosystems like wetlands, tallgrass prairies, forests, and other shallow, vegetated depressions unique to our Great Lakes region.

These ecosystems provide benefits by capturing runoff, filtering pollutants, giving water time to soak into the Earth, and then slowly releasing whatever water is left back to the environment. Our intent is to try to mimic these natural systems, which have been doing this kind of work for millions of years, and apply it to urban environments. This is what we call green stormwater infrastructure, or GSI.

Two kinds of GSI systems commonly seen in communities are rain gardens and bioswales. Rain gardens are shallow, constructed depressions that are planted with deep-rooted native flowers and grasses. Bioswales are like rain gardens with the exception that they are constructed with an intent to convey water, while also absorbing and slowing down runoff. Both types of green infrastructure systems can be found in city parks, parking lots, along roadways, and increasingly throughout many residential neighborhoods.

Rain gardens are a wonderful way to help protect your home and property from persistent threats of flooding. These multifunctional gardens are inexpensive, simple to construct, and can be beautiful additions to your home landscaping. If you are wondering where a good spot might be to build a rain garden near your home, take a moment to think



Above: Avon & Livernois after 2019 rain event



about how your property handles rainwater. For instance, where do your gutters gush out water from your roof? Where are your neighbors' downspouts directed? Do you have any puddles lingering around after a rainstorm? Is there a pesky low spot in your yard that could be spruced up with gorgeous flowers and tall grasses?

Our WaterTowns® initiative is providing opportunities for cities to conceptualize redevelopment or retrofit opportunities with GSI systems by asking themselves these very questions. The foundation of this program is planning with nature in mind. When investments are made in GSI systems we can begin to realize and benefit from the gifts of nature, like minimizing threats of flooding in streets and around our homes.

Please give us a call to find out how your property and your neighborhood can benefit from a rain garden. Our staff will be happy to help you plan the correct size, depth and suggest some native plants to try.

RiverSafe LakeSafe

RiverSafe LakeSafe is a public education program aiming to raise awareness of the simple steps residents can take to protect water quality. Residents who have shown their dedication to keeping our freshwater resources clean and healthy are recognized through the program with an official RiverSafe LakeSafe garden plaque.

What are the benefits to being RiverSafe LakeSafe certified?

By participating in this program, you can help to maintain and protect our freshwater resources for generations to come. When it comes to how we manage our natural resources, individual efforts are crucial to overall success. Our dedication multiplies in power when we work together to do the right thing.

You do not have to live on a river or a lake to be RiverSafe LakeSafe certified! This program is open to all residents of the watershed, including businesses and other organizations.

How can I get involved?

To find out how you are doing keeping our watershed clean and healthy and become RiverSafe LakeSafe certified, simply take our online survey! If you do not meet one or more criteria on the certification survey, don't worry! Everyone has room for improvement, and you can retake the survey any time. We are available by phone, by email, or in-person to offer advice and to help you adjust your routines to be more freshwater-friendly.



Become RiverSafe LakeSafe!

By taking a few minutes to learn more about what's best for the environment, you can make a difference. You don't have to live on a river or a lake to be Riversafe Lakesafe certified! This program is open to all residents of the watershed, including businesses and other organizations.

Volunteer With Us!

For More Information:

248.601.0606
CRWC.org/join-us/volunteer

Meet Our New Staff!



Holly Fine Membership and Operations Associate

Holly comes to the CRWC with a wide array of experience. Holly studied psychology at Wayne State University, earned an Associates in Science for Business Management in 2021 and is currently working towards a BA with a dual concentration of Diversity and Cultural Awareness and Human Resource Management at Southern New Hampshire University. Holly has over twenty years of experience in operations with the last seven in a non-profit.



Kaleigh Snoddy Watershed Program Specialist

Kaleigh joined the CRWC in 2019 and 2020 as an intern. In spring of 2021, she graduated with honors from Oakland University with a BS in Environmental Science with a Specialization in Natural Resource Sustainability and Management, and a minor in Biology. Kaleigh assists with the planning and execution of our Stormwater Education Programs, helps with watershed clean ups, and works with the Watershed Ecologist to complete field work and other environmental applications.

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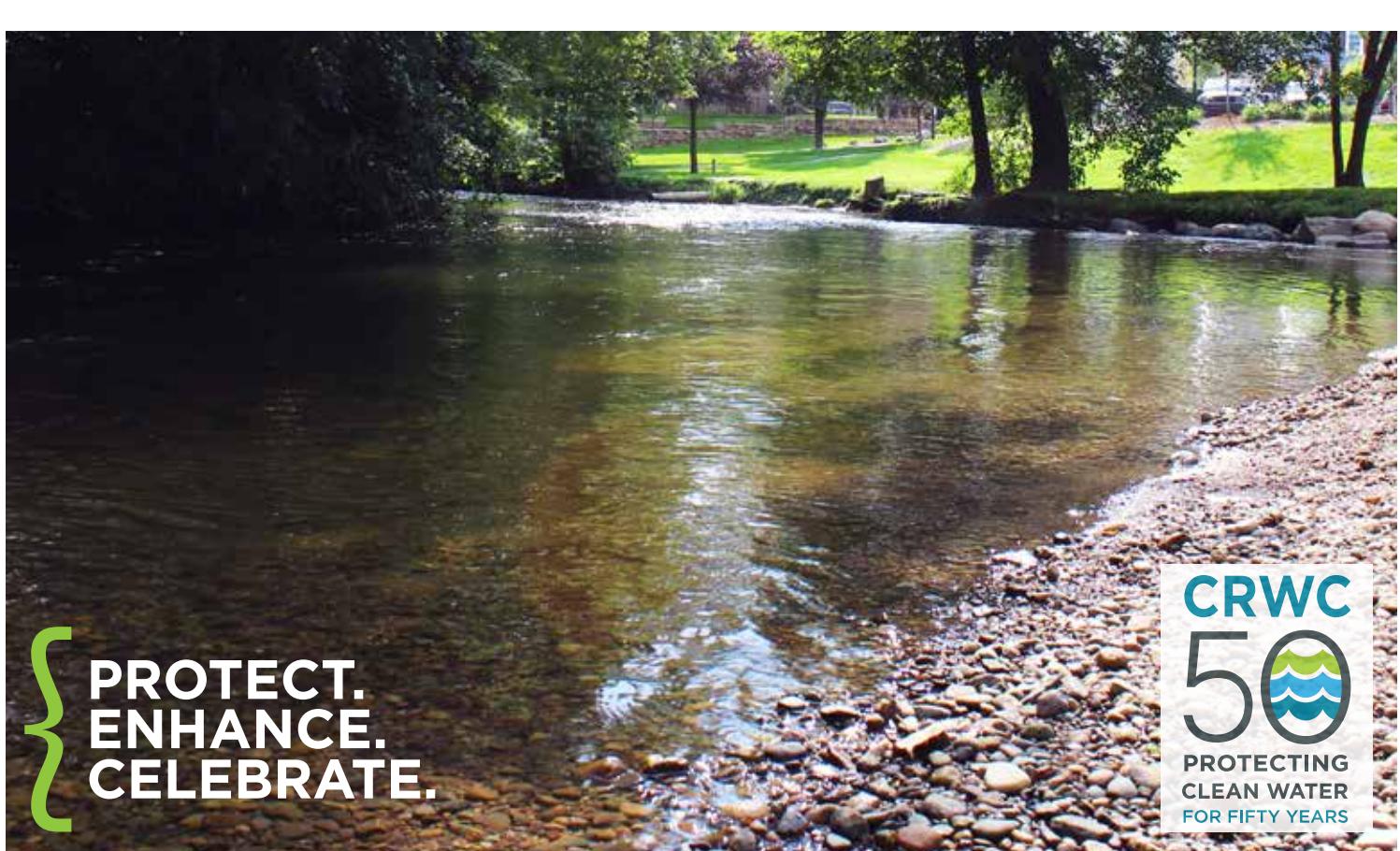
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freshwater starts with you!