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QUEST // Packet Pickup

LOCATION // 1115. W Avon Rd. Rochester Hills, MI 48309

While you can access all materials for the scavenger hunt virtually, CRWC will print your packet and guidebook for pickup upon request. Just send us an email to kaleigh@crwc.org. While visiting our office you can cross a few items off your Scavenger Hunt list.

2

QUEST // Avon Creek Restoration

LOCATION // 1115. W Avon Rd. Rochester Hills, MI 48309

Located behind the office, stretching from the pond near Rochester Hills Dr. to the main branch of the Clinton River.

Avon Creek suffered from vertical banks and erosion and as result, fish and wildlife populations suffered. Restoration occurred in four phases from the retention pond near Rochester Hills Dr. to the point where Avon Creek meets the main branch of the Clinton River. This project re-established habitat by accomplishing streambank stabilization, native plantings and restored meanders to Avon Creek.



Photos taken before restoration of Avon Creek

Photo credit: HRC & CRWC



EDUCATIONAL ACTIVITIES

For nearly 50 years, the Clinton River Watershed Council has been connecting communities to their freshwater resources through education, workshops and presentations.

7

QUEST // Identify an animal along the river, or somewhere else in the Clinton River Watershed.

LOCATION // Anywhere within the watershed

The Michigan DNR website is a great resource to learn more about the plants and animals that can be found here in Michigan: michigan.gov/dnr click on education & safety and then learn about Michigan Species.

8

QUEST // IDENTIFY A NATIVE PLANT WITHIN THE CLINTON RIVER WATERSHED

LOCATION // Anywhere within the watershed

Native plants have long root systems that filter stormwater, are adapted to the climate here in southeast Michigan, and provide food and habitat for pollinators and other animals. Michigan State University has an extensive native plant list. https://www.canr.msu.edu/nativeplants/plant_facts/local_info/south_lower_peninsula

Monarch Caterpillar outside the CRWC offices



EDUCATIONAL ACTIVITIES

For nearly 50 years, the Clinton River Watershed Council has been connecting communities to their freshwater resources through education, workshops and presentations.

9

QUEST // Identify an invasive species along the river

LOCATION // Anywhere within the watershed

We hope you don't find an invasive species; however, we know they are abundant not just in our watershed but everywhere. Invasive species outcompete native species for essential needs like food and habitat, negatively affecting native species populations. Luckily if you do find an invasive species there is a way to report it. Go online to MISIN (The Midwest Invasive Species Network), or download the free MISIN app. On either resource you can make a report of your sighting.

There are many more educational resources on the MISIN website such as identification training modules, maps and projects. misin.msu.edu/report/misin/?project=misin

Left: European Frog-bit



Right: Phragmites



STREAM BANK RESTORATION

The CRWC works cooperatively with many partners across the watershed to protect, enhance and celebrate the Clinton River, its watershed and Lake St. Clair. Quality habitat and water are crucial to a healthy river ecosystem. Habitat friendly access to our water resources is also important to preserve and protect river and stream banks.

28

QUEST // Depot Park in Clarkston

LOCATION // 375 Depot Rd, Village of Clarkston, MI 48346

In 2018 CRWC, with funding from Pure Oakland Water (POW) and in partnership with the City of the Village of Clarkston and Friends of Depot Park, implemented a stream bank restoration using native plants to reduce erosion and enhance habitat. More than 60 volunteers over 2 workdays were involved in cleaning up the park and planting the streambank.



Depot Park before the stream bank restoration (above) and one year later (right).

FISHING ACCESS LOCATIONS

The CRWC works cooperatively with many partners across the watershed to protect, enhance and celebrate the Clinton River, its watershed and Lake St. Clair. Quality habitat and water are crucial to a healthy river ecosystem. Habitat friendly access to our water resources is also important to preserve and protect river and stream banks.

29

QUEST // CRCCP Fishing Access at Rochester Municipal Park

LOCATION // Rochester Municipal Park 400 6th street Rochester, MI 48307

The goals of the Clinton River Coldwater Conservation Project (CRCCP) are to generate public support for the Clinton River Watershed as a valued recreational resource through data collection and efforts to improve water quality, aesthetics and access to the Clinton River and primarily its cold-water tributaries. Check out one or both fishing access locations on the Paint Creek, the last designated cold-water trout stream in southeast Michigan. The projects were implemented through CRCCP in partnership with local Trout Unlimited chapters.

30

QUEST // CRCCP Fishing access at Kern & Clarkston Road

LOCATION // Kern and Clarkston Road in Orion Twp., upstream of the Paint Creek Trailhead.

The goals of the Clinton River Coldwater Conservation Project (CRCCP) are to generate public support for the Clinton River Watershed as a valued recreational resource through data collection and efforts to improve water quality, aesthetics and access to the Clinton River and primarily its cold-water tributaries. Check out one or both fishing access locations on the Paint Creek, the last designated cold-water trout stream in southeast Michigan. The projects were implemented through CRCCP in partnership with local Trout Unlimited chapters.

UPCOMING EVENTS

31 TRASH RUN #1 // JUNE 10 // 8:30AM - 1:00PM
Join CRWC and Clinton River Canoe & Kayak for a paddle down the Clinton while we pick up trash! Trash runs are intended for individuals 14 years of age and older, and registration is required. Canoes provided by Clinton River Canoe and Kayak. *Exact route TBD depending on weather and water levels, registration is required to receive start location and route.
REGISTER // <https://forms.office.com/r/wdvRC1F3X4>

32 RIVER DAY // JUNE 11 // ALL DAY
MULTIPLE EVENT OPPORTUNITIES: River Day is designed to encourage appreciation and recreational use of the waterways of the Clinton River and Lake St. Clair, and to celebrate the leadership of local citizens, organizations, and communities whose efforts are critical to protecting and enhancing the overall quality of the Clinton River watershed.

This June individuals, businesses, community groups, and local governments across the watershed will join forces on River Day to enhance and celebrate the Clinton River and Lake St. Clair. Activities range from nature hikes, canoe trips, fishing derbies, and fly fishing lessons to storm drain stenciling, river clean-ups, habitat restoration, and native landscaping. To find out about specific activities, check the event guide.

FOR MORE INFO // <https://www.crowc.org/events/community/river-day>

33 RAIN GARDENS AND RAIN BARRELS PRESENTATION // JUNE 28 // 6:00 - 7:15PM
Join CRWC and the Warren Civic Center Public library for a presentation on rain gardens, the importance of green infrastructure, and what you can do at home to improve water quality! Register for free through the Warren Public library to save your spot.
REGISTER // <https://bit.ly/3NMDabk>

UPCOMING EVENTS

34 TRASH RUN #2 // JULY 15 // 8:30AM - 1:00PM
Join CRWC and Clinton River Canoe & Kayak for a paddle down the Clinton while we pick up trash! Trash runs are intended for individuals 14 years of age and older, and registration is required. Canoes provided by Clinton River Canoe and Kayak. *Exact route TBD depending on weather and water levels, registration is required to receive start location and route.
REGISTER // <https://forms.office.com/r/wdvRC1F3X4>

35 WALK ON THE WILD SIDE // JULY 23 // 7:00AM -12:00PM
Join the Clinton River Watershed Council as we host our annual Walk on the Wild Side Fundraiser at the Detroit Zoo! This event is family friendly, so please encourage your friends and family of all ages to attend. Your donation will get you early entry to the zoo, free parking, a light breakfast, a CRWC swag bag, and access to the zoo for the entire day!
REGISTER // <https://secure.qgiv.com/event/crowczoowalk/>

36 TRASH RUN #3 // AUGUST 12 // 8:30AM - 1:00PM
Join CRWC and Clinton River Canoe & Kayak for a paddle down the Clinton while we pick up trash! Trash runs are intended for individuals 14 years of age and older, and registration is required. Canoes provided by Clinton River Canoe and Kayak. *Exact route TBD depending on weather and water levels, registration is required to receive start location and route.
REGISTER // <https://forms.office.com/r/wdvRC1F3X4>

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CREATE A WATERSHED //

Explore how watersheds work by making a model! Grades 4-7
<https://uaf.edu/museum/education/kids-families/family-days/pdfs/Create-A-Watershed-Activity-FD.pdf>

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LEARN ABOUT THE RIVERSAFE LAKESAFE PROGRAM //

Check out the educational links and resources on CRWC's RiverSafe LakeSafe webpage to learn about watershed friendly landscaping. Next take the River-Safe LakeSafe survey <https://www.surveymonkey.com/r/RiverSafeLakeSafe> to see how water friendly the land surrounding your home is. While it may take awhile to execute all of the watershed friendly practices, education is the first step.

<https://www.crowc.org/programs/volunteer/riversafe-lakesafe>

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MACROINVERTEBRATE I.D. ONLINE TOOL //

At CRWC we rely on citizen science water quality monitoring to gather long term data across the watershed. Collecting bugs that live in the water or aquatic macroinvertebrates, tells us a story about the water where they were found. Depending on the variety and abundance of these bugs we can gain an understanding of overall water quality. Identifying these bugs helps with water quality monitoring. Check out these free learning materials with magnified bug pictures: <https://www.macroinvertebrates.org/>

Watch this youtube video for more information: <https://youtu.be/b3IK-G5IXLxA>

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READ "CHILD OF THE ICE AGE: THE CLINTON RIVER" FROM MSU EXTENSION//

Learn the history of how the Clinton River was formed with a short article from Michigan State University Extension.

https://www.canr.msu.edu/news/child_of_the_ice_age_the_clinton_river

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WATER CALCULATOR //

How much water do I use? How do I compare? How can I conserve? Home water conservation is easy once you understand how and where you can use less. The quick and easy Water Calculator shows you which water uses in your home are efficient and which are not and offers simple conservation tips that save water and energy.

The Water Calculator compares your water use to a similar average and efficient house in your region. The Water Calculator estimates the energy savings and carbon footprint of your hot water usage, and helps identify specific areas for improving overall household water efficiency. Water conservation is easy and the Water Calculator gets you started right away. All ages, family activity. <https://www.home-water-works.org/calculator>

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HOW'S MY WATERWAY? //

How's My Waterway was designed to provide the general public with information about the condition of their local waters based on data that states, federal, tribal, local agencies and others have provided to EPA. Water quality information is displayed on 3 scales in How's My Waterway; community, state and national. More recent or more detailed water information may exist that is not yet available through EPA databases or other sources. Check out the How's My Waterway Fact Sheet. <https://my-waterway.epa.gov/>

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WATERCYCLE & WATERSHEDS: WAYS OF WATERSHEDS //

A lot of precipitation (rain, snow or sleet) falls directly into the ocean, lakes, river, and other bodies of water. But what happens to the precipitation that hits the land instead of the water? Watch this animation to find out. Grades 5-12. <https://dptv.pbslearningmedia.org/resource/water-cycle-unc-tv-science/water-cycle-ways-of-watersheds-unc-tv-science/>

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WATERSHED ACADEMY //

Looking for a deeper understanding of how watershed management works? The EPA's Watershed Academy offers free webcasts, resources and even online training modules where you can earn your watershed management training certificate. "The Watershed Academy's distance learning program Watershed Academy Web is a set of self-paced training modules that represents a basic, but broad introduction to watershed management. This program's goal is to provide useful information to local, state and tribal efforts aimed at improving the health of our Nation's waters by protecting and managing their watersheds. These training modules cover the most important watershed management topics. Watershed managers, local officials, involved citizens, decision makers and others should have at least an introductory level of knowledge about these topics"

<https://www.epa.gov/watershedacademy>

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NOT MI SPECIES WEBINARS //

Invasive species pose a threat to Michigan's environment, economy, and sometimes even human health. What is at stake? What is being done? This webinar series will explore how agencies, universities and locally led organizations are working together to protect Michigan's natural resources through the Michigan Invasive Species Program. If you are concerned about the impacts of invasive species or interested in the techniques used to control them, join us as we examine species-specific actions, innovations in research and technology, and programs designed to help communities prevent and manage harmful invasive species. A question and answer period will follow each presentation. https://www.michigan.gov/egle/0,9429,7-135-3308_3333-539592--,00.html

Did you know the Clinton River Watershed Council is celebrating 50 years? Check out these interesting facts to learn about the watershed and how CRWC has been involved in the protection, enhancement and celebration of the Clinton River, the Clinton River watershed and lake St. Clair over the last 50 years.

1970's and Before

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 an urban trout fishery and Lake St. Clair is a world renown sport fishery.

Updating the federal water pollution control act of 1948, the 1972 Clean Water Act began regulating pollutants discharged into navigable waters of the United States by requiring a NPDES (National Pollution Discharge Elimination System) permit to discharge pollutants from a point source. NPDES permits allow the public to be involved in the permitting process and requires permittees to monitor and report on discharges. The Clean Water Act also spurred municipal and industrial water quality projects.

Since 1978 the Clinton River holds the state record for larges Kokanee Salmon caught, at 18 inches.

With assistance from the Clinton River Watershed Council, Oakland Township became the first Michigan community to adopt a local wetland ordinance and a stormwater management plan.





Clinton River Watershed



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 **CLINTON RIVER WATERSHED COUNCIL**

