Stream Lines

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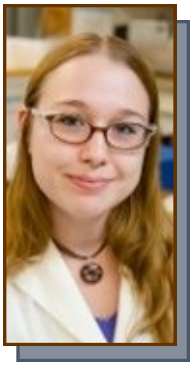
Message from the New Coordinator



Hello, my name is Carley Kratz and I am very excited to be the new coordinator for the River Raisin Watershed Council. I grew up in the watershed in Bridgewater Township. I have always had a connection with the River Raisin. Hiking, fishing and paddling are all pastimes that I enjoyed from a very young age.

I attended the University of Michigan where I received a Bachelor of Science degree in the Program in the Environment in 2009. I specialized in Botany, and learned to identify all of the plants that I could get my hands on. You can learn a lot about an area based on the plants that are growing there. Slight differences in water availability or soils can change the entire plant community.

Through my studies, I have traveled to different locations, but I always gravitate back to the River Raisin. My senior honors thesis took me to Arizona, where I studied native grassland plant communities following prescribed burns. I spent a summer in Chiapas, Mexico studying insects. The remainder of summers during my undergraduate years was spent at the University of Michigan's Biological Station. It was there that I was first introduced to aquatic ecology in outdoor classrooms which included streams, lakes, fens, marshes, bogs, swamps and vernal pools. I will be graduating from Michigan Technological University in May 2014 with a Ph.D. in Forest Science.

My doctorate research focused on soil microorganisms, including fungi. At first glance, fungi can be confusing organisms; all mushrooms are fungi, but not all fungi produce mushrooms. Most fungi aid in decomposition, helping to break down dead materials. One type of fungi that I studied is known as mycorrhizal fungi. Mycorrhizal fungi live in or on plant roots. The fungus acts as an extended root system by helping the plant absorb nutrients and water. In exchange, the plant gives the fungus energy to live and grow. This type of symbiotic relationship occurs in nearly every plant. Fungi can also help keep nutrients in the soil by stopping nutrient run-off into our rivers, streams and lakes. Over the next few years, I hope to begin a project in the River Raisin watershed that uses fungi to help keep the water in the river clean, a process known as mycofiltration.

I look forward to spreading my knowledge and love of the River Raisin to citizens of all ages in the watershed. We will reach more future scientists and environmental stewards by initiating hands-on classroom activities and library presentations. Our River Raisin Rescue program will clean garbage out of the river to make it more enjoyable for everyone. The Adopt-A-Stream program will continue to monitor the macroinvertebrates (or "bugs") living in the river in order to gain a better understanding of water quality. We will also be testing water quality by looking directly at the chemical composition of the water from the river and its tributaries. One of my major goals is to get more people out on the River Raisin to enjoy the treasure that is flowing through their own backyards.

Join Us At Our Spring Meeting!

April 23, 2014

More Details on Back Page

Promoting Stewardship
MAEAP
Protecting the Environment

All Hands on Deck

Michigan Agricultural Environmental Assurance Program, or MAEAP for short, is a voluntary program that assists farmers in identifying and remediating risks to water resources. MAEAP verification is a way for farms to demonstrate that they are in compliance with state and federal laws that protect our water resources.

Since 2011, the Michigan Conservation District's MAEAP program has collaborated with Bay Sail to take Agricultural Leaders and partners on Tall Ship sails in the Saginaw Bay and on the Detroit River. This summer our local Farm Bureau is partnering with MAEAP to bring the Appledore IV Tall ship into Lake Erie.

Thirty participants will sail to the Lake Erie Islands to get a first hand look at the issues facing Lake Erie.

The River Raisin watershed is a part of a larger watershed known as the Western Lake Erie Basin. The River Raisin drains waters into Lake Erie at the Eastern edge of Monroe County. The watershed is home to approximately 178,577 people, covers 3,000 miles of man-made drainage and is 65% agricultural, 11% urban. While predominantly covering Lenawee County, the watershed also includes portions of Washtenaw, Jackson, Hillsdale and Monroe County.

Known as the Walleye capital of the World, Lake Erie boasts a multibillion-dollar recreation industry, gives millions of people access to drinking water and provides critical habitat for fish and wildlife. Higher frequency of storm events increases nutrient loading into the lake, leading to harmful algae blooms during warm summer and fall months. These algae blooms present health risks to fish, wildlife and humans.

In the 1970s and '80s, harmful algae blooms were caused by excess sewage going into the lake. Since those days upgrades have been made to lessen impacts from water treatment facilities surrounding the lake. Science is proving that current issues of the lake are complex but possible to remediate. During the drought of 2012, reduction of drainage from the watershed resulted in less algae. This allowed scientists to determine that if we can reduce nutrients going into the lake we can make a positive impact in the health of the lake.

With millions of people relying on Lake Erie for drinking water, and the potential for human impacts, the need for more conservation programs to be put on the ground has never been greater. Municipalities, Industries and the Agricultural Community are all coming together to help solve the issues of water quality, The "All Hands on Deck", approach is certain to make a positive and lasting difference in the health of the lake.
If you are a Michigan Agricultural Producer and would like more information about the Tall Ship sails please email MAEAP Technician Amy Gilhouse at amy.gilhouse@macd.org
For more information about Michigan Conservation Districts, MAEAP, the River Raisin Watershed, Lake Erie Algae Blooms or Bay Sail please visit the following links:

www.macd.org

www.maeap.org

http://science.kqed.org/quest/video/battling-the-bloom-lake-erie/

www.baysailbaycity.org

The Lower Raisin – The Last 23 Miles for Canoers, the First 23 Miles for Fish

It's called the River Raisin Dam Remediation Project – "Reconnecting Waterways- Lake Erie to Dundee." Fish are breathing a sigh of relief – at long last they'll again be able to make their way upstream as far as Dundee.

Over the past five years, the City of Monroe with the assistance of many partners had undertaken numerous efforts to make the lower Raisin capable of fish passage. The work of remediating six "low head" dams and two higher dams has been accomplished in two phases: Phase 1, a $1.3 million EPA grant to the City of Monroe, and Phase 2, a $1.5 million MDEQ award. Funding for both grants is part of the overall Great Lakes Restoration Initiative.

The dam remediation project was designed for fish passage; it addresses a Beneficial Use Impairment and a Habitat Restoration goal cited in the River Raisin Watershed Management Plan (RRWMP-Chapter 5 Prioritizing Challenges and Goals page 79; also see Table 5-16 River Raisin Watershed Goals and Objectives, Goal #3, page 99).
Four of the six low-head dams could not be removed because active sanitary sewer lines are located within them and must be maintained. In order to enable fish to advance upstream, rock arch ramps were constructed up to the top of the dam using large rocks and stabilized fill, creating small spilling ponds at different levels that allow water to run down acting like rapids of sorts. Two dams were removed completely, with rocks and other materials being introduced in the river to restore the natural fall of the stream.

The Waterloo Dam, just west of the Telegraph Road bridge has a fall of over 7 feet. Although there was no sewer behind this dam, projected costs for demolition of the existing dam and removal of accumulated sediments were prohibitive. The solution for getting fish around this impediment is a bypass channel which will be completed this spring.

A bypass – an old millrace – already existed around the Grape dam, just west of the Ida-Maybee Road bridge in Raisinville Township. The millrace was not altered, but a water containment structure was removed, much debris cleared, and rock arch ramps installed to allow fish passage.
This work on the Lower Raisin is a significant example of how a part of our RRWMP has been successfully implemented. There are many more improvements to be made over the coming years, guided by the RRWMP and implemented by the hard work of committed and informed citizens, municipal leaders, and municipalities, along with our state and federal governments. This particular project will re-connect the waterway for fish and folks – fantastic!

Informative website:
www.riverraisinlegacyproject.com

Images courtesy of Tow Hawley, Monroe News

Adopt-A-Stream

Shake off the long winter with this opportunity to get your feet wet! Volunteers are needed to help monitor water quality by sampling macroinvertebrates (bugs). Contact us for more information.

May 17th	Training Day—Learn how to sample aquatic bugs
May 31st	Stream Search Day—Teams of volunteers collect samples throughout the watershed
June 7th	Bug ID Day—Learn what types of critters were found and what it means for water quality

Join Us At Our Spring Meeting!

Date: **April 23, 2014**

Time: **Refreshments Served at 6:30 PM**
Official Program 7-9 PM

Location: **A.J. Smith Recreation Center**
800 N. Evans St.
Tecumseh, MI 49286

Presentations

Speaker: Carley Kratz, RRWC Coordinator

Topic: Message from the New Coordinator

Speaker: Scott Dierks, Water Resources Engineer

Topic: The River Raisin Watershed Management Plan: Where Do We Go from Here?

Speaker: Jim Seitz and Kenny Price, G.R.E.A.T (Grand River Environmental Action Team)

Topic: Paddling in the River Raisin Watershed

Mark your calendar and save the date. The theme of our spring meeting this year will be "Promoting Environmental & Economic Sustainability and Social Equity with the Watershed Management Plan". It is critical that the appointed representatives from each municipality attend, as we need a quorum to conduct official business. Everyone from the watershed community is welcome and encouraged to attend, listen to presentations, and share ideas. Your input shapes our organization.

Legacy Land Conservancy Conservation Fair

The RRWC is one of the founding members of the River Raisin Partnership, an informal group that meets quarterly to share information and collaborate on projects to implement the watershed management plan. In each issue we highlight the activities of one of our partners.

Legacy Land Conservancy is sponsoring a Conservation Fair on April 30th at Freedom Township Hall from 6-9 pm. The fair will bring local conservation groups together for an open-house where local farmers and landowners can gather information about conservation options to improve water quality in the headwaters of the River Raisin watershed (Norvell-Manchester area). Each group will be available for 1-on-1 discussions; short presentations will highlight how farmers can keep the River Raisin clean, including information about MAEAP (see All Hands on Deck story). Participants include: Washtenaw Conservation District, Natural Resources Conservation Service, MAEAP, Raisin Valley Land Trust, and Legacy Land Conservancy.

This event is part of a project funded by the Great Lakes Commission to permanently reduce sediment loads in the River Raisin watershed. Agriculture and clean water are crucial economic and natural resources that go hand-in-hand; clean water depends in part on good agricultural practices, while agricultural production depends in part on clean water. In the River Raisin watershed, Legacy Land Conservancy (Legacy) is working with farmers and other partners to keep water clean today and forever.

Legacy and the other partners to the grant will conduct educational outreach with farmers in the headwaters area and refer those interested to the NRCS. The NRCS will assist farmers with planning and access to cost-share programs that can reduce sedimentation. The outreach will also inform farmers and other landowners about permanent conservation easements, which can help ensure that the project area does not contribute to high sediment loads in the Lake Erie basin.

The grant runs through September 2015 . Please contact any of the partners for more information.

Contact Us!

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