

# Explorer

Summer 2016

## Another Successful Macatawa Water Festival

Over 20 exhibitors and sponsors came together on a blustery Saturday, July 9, to put on the 2016 Macatawa Water Festival. The lead sponsor was Meijer who provided free water and fresh fruit to everyone that attended. Despite the wind and overcast conditions, a good time was had by all. Participants were able to take a paddle around the island in a kayak or voyager canoe, ride a bicycle around the island, fish for trout, play games, make crafts, and learn about water through many different hands-on and interactive displays. The MACC would like to thank all exhibitors, sponsors and volunteers that helped to make the 2016 Macatawa Water Festival a success!



*Kayaking with the Outdoor Discovery Center*



*First voyage of the morning in the Gabagouache with Ottawa County Parks and Recreation*



*Learning about how soil can filter pollution out of a water with Interface H2O*



*Exploring the many opportunities that abound within Ottawa County Parks*



*About to start making rain barrels with Becky Huttenga*



*Learning about aquatic macroinvertebrates with the MACC*

# About the MACC

**Steve Bulthuis**

Executive Director

**Elisa Hoekwater**

Transportation Manager

**Kelly Goward**

Watershed Project Manager

**Aaron Spicer**

Agricultural Technician

**Carolyn Ulstad**

Program Assistant

The Macatawa Area Coordinating Council (MACC) was formed in 1993. It is the Metropolitan Planning Organization for the Holland, Michigan, urbanized area and is required by federal legislation to provide coordinated transportation planning. The MACC's transportation program is funded by planning funds from the Federal Highway Administration, the Federal Transit Administration, the Michigan Department of Transportation, and local dues. Other programs of the MACC include the Macatawa Watershed Project that works to improve area water quality and the Clean Air Action Program that promotes voluntary actions on Clean Air Action! Days.



**Macatawa Area  
Coordinating Council**  
*A Cooperative Effort Among Units of Government*

301 Douglas Ave

Holland MI 49424

616-395-2688

[www.the-macc.org](http://www.the-macc.org)

## Calendar of Events

**July 29, 1-4pm – Stream Habitat Assessments:** Join the MACC and ODCMG\* as we evaluate stream habitat at 7 locations in the watershed. *RSVP to the MACC for more information.*

**July 30, 8am-noon, August 5, 1-4pm, August 6, 8am-noon, August 11, 1-5pm – Road Stream Crossing Inventories:** *RSVP to the MACC for meeting locations. See story on opposite page for more information.*

**August 3, 8am-2pm – Growing Together Tour: A Look at On-Farm Best Management Practices:** This event is free and your *RSVP is required to the MACC by July 27.* The tour begins at the ODCMG, 4124 56th St, Holland. See story inside for more information.

**August 6, August 20 & September 10, 9am-12pm—River Encounters.** The group will meet at the River Avenue entrance of Window-on-the-Waterfront Park (10 South River Ave, Holland). There are single and double kayaks that can accommodate most people. Children under 10 years old should paddle with an adult. Registration fees apply. Boat quantities and number of participants limited. *Registration is required to ODCMG: [odc@outdoordiscovery.org](mailto:odc@outdoordiscovery.org) or 393-9453.*

**August 18, 1:30-3pm – Watershed Advisory Committee Meeting** at the MACC office. All are welcome and your RSVP is not necessary. Contact the MACC for more information.

**September 20, 1-4pm – Volunteer macroinvertebrate (water bug) monitoring:** Volunteers will meet with MACC and ODCMG staff at Adams Street Landing, receive instructions and equipment, form teams, and head to several other locations. Everyone is welcome but anyone under 16 must be accompanied by an adult. *Your RSVP is required to the MACC by September 15.*

**September 24, 1-4pm – 10th Annual Fall River Clean Up:** Join the MACC and ODCMG and help cleanup the Macatawa River. See story inside for more details *Your RSVP is required to the ODCMG: [odc@outdoordiscovery.org](mailto:odc@outdoordiscovery.org) or 393-9453.*

\*ODCMG = Outdoor Discovery Center Macatawa Greenway

## Road-Stream Crossing Inventory

The MACC was awarded a grant this spring to help with the inventory of 55 road-stream crossings within the Macatawa Watershed. The program, funded by MiCorps, started in 2014 with a single pilot grant and is now in its second year of full program funding. The program provides dollars to volunteer monitoring groups that want to assess the condition of road-stream crossings to better protect and enhance those streams in the future. This year, the MACC was awarded funding as well as the Muskegon Conservation District and the Calhoun Conservation District.

The 55 locations in the Macatawa Watershed were chosen based on a past inventory project from 2008 that used a more simplified bank erosion hazard index. Sites that were identified at that time as being moderate or severe for erosion were prioritized to look at again this year to see if they have continued to degrade or if improvement projects have already been completed. To help with the inventory of sites, both the Allegan and Ottawa County Road Commissions and Drain and Water Resource Commissioners will be assisting the MACC as well as college interns and other interested volunteers from the public.

Teams will assess the stream crossings on multiple levels. Each data sheet completed will address the structural conditions of the water-pass (culvert or bridge) and stream information such as flow, water depth and what material makes up the stream bottom. The data sheets also include road condition and areas where erosion may be present.

In the end, the data collected from the sites will help make decisions on where improvements are needed and which sites should take top priority. The road commissions will also benefit by being able to take this information and look at it side by side with their own project schedules. For instance, if a road or bridge needs replacement in the near future, they can look to see if the stream where the road crosses has been identified as a high priority. If it has, they may be able to make two improvements at one time.

### Scheduled Inventory Dates

Saturday, July 30, 8am-Noon (Zeeland Township area)

Friday, August 5, 1pm-5pm (Park & Holland Township area, meet at MACC office)

Saturday, August 6, 8am-Noon (Overisel Township area)

Thursday, August 11, 1pm-5pm (Fillmore Township area)

**Your RSVP is required for all events. For more information or to sign up to be a volunteer, contact Kelly Goward at [kgoward@the-macc.org](mailto:kgoward@the-macc.org) or 616-395-2688.**

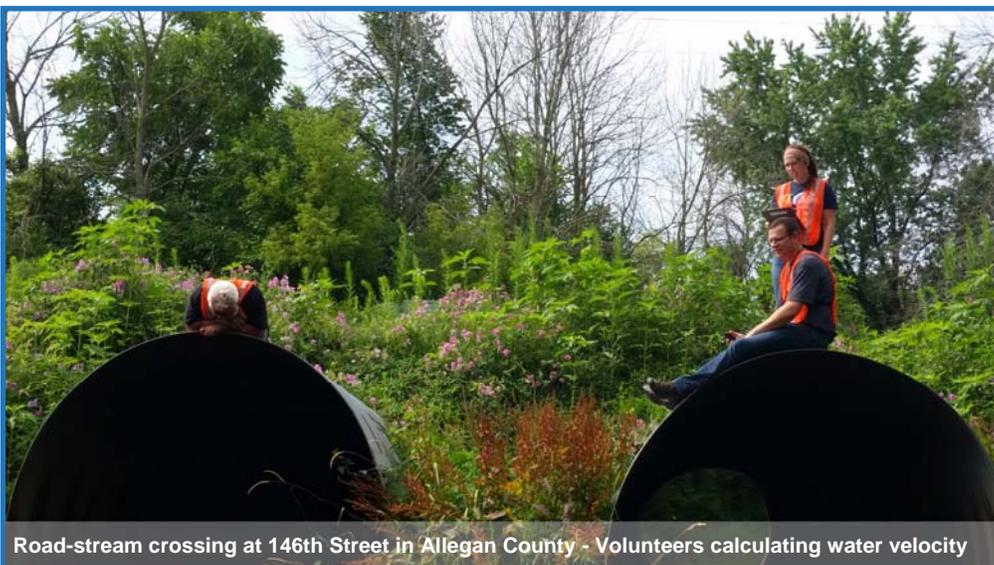


Photo to the left shows volunteers Paul Lilly (far left) waiting for an object to float to the other side of the culvert to calculate the speed of the water. Peter Klooster from the Allegan County Drain Commission (sitting on right) has stop watch in hand, and ready to write down the time is MACC intern Allison Veldheer. Photo was taken at a training event held for partners and some volunteers on July 12, 2016.

Road-stream crossing at 146th Street in Allegan County - Volunteers calculating water velocity

# Growing Together Tour:

## *A Look at On-Farm Best Management Practices*



Wednesday, August 3, 2016

8:00am - 2:00pm

Outdoor Discovery Center Macatawa Greenway  
(4214 56th Street, Holland, MI 49423)



*Free lunch is included. MAEAP Phase 1 certification is available.*

The MACC is hosting a tour of on-farm best management practices that were recently installed in the Macatawa Watershed. Participants will learn about cover crops, interseeding technology and storm water storage methods. The tour will include practices funded by the MACC's current Great Lakes Commission grant and Project Clarity. The tour will also discuss practices that will be installed under the MACC's new Great Lakes Restoration Initiative grant that was awarded this spring. Bus transportation is included and the tour will include walking through farm fields. Accommodation requests related to a disability should be made by July 25 to Kelly Goward at 616-395-2688 or [kgoward@the-macc.org](mailto:kgoward@the-macc.org)

*Limited spaces are available. Your RSVP is required by July 27.* To register contact the MACC at 616-395-2688 or email Aaron Spicer at [aspicer@the-macc.org](mailto:aspicer@the-macc.org)



# MACATAWA RIVER CLEANUP!

**Help clean the Macatawa River!**

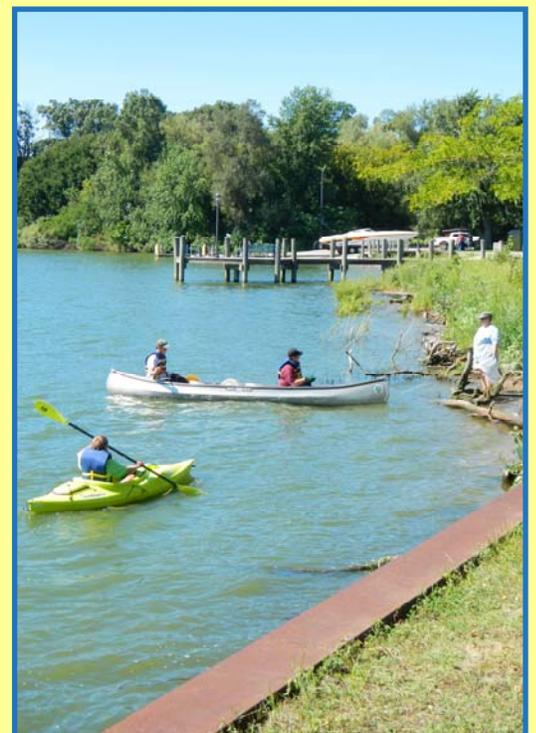
**September 24, 1:00pm - 4:00pm**

Teams will set out on foot or in boats to collect trash around the banks of the Macatawa River! Anyone under 16 years old must be with an adult. All boats, paddles and life vests will be provided. A limited number of seats are available in boats. Volunteers will be coordinated for clean-up at the River Avenue Bridge parking lot off of 1st Street (19 N River Ave, Holland, MI 49423)

**Invite the whole family!**

**Pre- Registration Required**

For more information or to register contact Outdoor Discovery Center at 616-393-9453 or email [odc@outdoordiscovery.org](mailto:odc@outdoordiscovery.org)



## All Drains Lead to the Ocean

The characters in the Pixar film, *Finding Nemo*, are absolutely right—all drains, storm water and sanitary, do indeed lead to the ocean! Some drains have a more interesting journey to get there, via a wastewater treatment plant, but they get there nonetheless. Even from the Macatawa Watershed.

Lake Macatawa flows into Lake Michigan which is connected to Lake Huron via the Straights of Mackinac. Lake Huron flows through the St. Clair River, Lake St. Clair and the Detroit River and finally makes it to Lake Erie. Lake Erie is connected to Lake Ontario through Niagara Falls. From Lake Ontario, water continues its journey through the Saint Lawrence River before finally making it to the Atlantic Ocean. This is quite a journey that can take over 90 years to complete!

So why does this even matter to those of us living in the Macatawa Watershed today? Because the impacts of how we treat our water resources now will be felt for generations to come. Pollution that enters storm drains accidentally or intentionally can have long-term negative impacts on water quality. Even some items that leave our homes in the sanitary sewer that are not removed at the wastewater treatment plant and can harm water quality, such as micro-plastics and pharmaceuticals. The water quality impacts we see now in the Great Lakes are the result of the actions of



generations that came before us, way back to the original settlers of the Great Lakes Basin. An ancient Indian proverb sums it up well: *“Treat the Earth well: it was not given to you by your parents, it was loaned to you by your children. We do not inherit the Earth from our ancestors, we borrow it from our children.”*

Okay, but things are so messed up now, what I can possibly do about it? Excellent question; we’re glad you asked! Every journey, whether you’re travelling or trying to change the world, starts with one step. That one step leads to another and then another. Maybe somewhere along the journey other people see what you are doing, ask questions and join you because they want to help too. Here are some simple steps that you take on your journey to leaving the Earth a little better for our children:

- Never flush unused medications down the toilet. The waste water treatment plant cannot remove these chemicals. Dispose of them at drug take backs or collection sites. The Holland Board of Public Works hosts at least one collection day each year, plus many local pharmacies will accept and properly dispose of unused medication.
- Always cleanup grass clippings and excess fertilizer if they end up on the driveway or street, especially if you have storm drains on your street. The next rain will wash all of that into Lake Macatawa where it will add more nutrients to a system that already has too many.
- Wash your car in the lawn or at a commercial car wash, especially if you have storm drains on your street. Keep all that dirty car wash water out of Lake Macatawa!

For more information about these and other actions you can take, visit [www.the-macc.org/watershed/overview](http://www.the-macc.org/watershed/overview)

# Sediment Reductions for Agricultural Practices Flourishing

By Aaron Spicer, Agricultural Technician (and Farmer)

The MACC was awarded a Great Lakes Commission - Great Lakes Restoration Initiative grant in 2013. Work on the grant has been on-going and will come to a close in September 2016. Over the course of the grant, ten farmers with land in the Upper Macatawa, Peters Creek and North Branch subwatersheds implemented a variety of best management practices to reduce sediment and phosphorus movement into Lake Macatawa. The table below provides a summary of the practices that were implemented and how much sediment and phosphorus were saved as a result.



BMP	Amount implemented	Sediment reduced (tons/year)	Phosphorus reduced (pounds/year)
Cover crops	477.09 acres	1,189.9	1,108.1
Conservation tillage	794.04 acres	1,557.7	1,496.5
Gypsum applied	113 acres	110.0	110.0
<b>Totals</b>	<b>1,384.13</b>	<b>2,489.8</b>	<b>2,714.6</b>

In addition to the Great Lakes Commission grant, the MACC was awarded a new grant in May 2016 from the US Environmental Protection Agency's (EPA's) Great Lakes Restoration Initiative program and practices are beginning to be implemented. Furthermore, farmers in the watershed have received financial assistance from Project Clarity for seeding cover crops, applying gypsum, building two-stage ditches and grassed waterways, and addressing other on-farm water quality issues.

In partnership with Project Clarity, the MACC will be hosting a farm tour. The Growing Together Tour will be held on August 3rd and is farmer-focused, but open to the public. The tour will visit farms that have implemented practices with the MACC under the Great Lakes Commission grant and with Project Clarity funding. These farms will showcase the use of cover crops, new cover crop planting equipment, water management techniques, and an on-farm MAEAP walk-through. Participants will also learn more about the new EPA grant.



*A cover crop of ryegrass growing in last season's corn stover. Spring 2016.*

To sign-up or for more information contact Aaron Spicer at 616-395-2688 or [aspicer@the-macc.org](mailto:aspicer@the-macc.org)

## Project Clarity Update

Contributed by Dan Callam, Outdoor Discovery Center Macatawa Greenway



After the Outdoor Discovery Center Macatawa Greenway (ODCMG) constructed the Haworth and Middle Macatawa wetland restorations last year in support of Project Clarity, ODCMG staff and our partners are still spending a lot of time at these sites and around the watershed. Staff from GVSU's Annis Water Resources Institute (AWRI) and Niswander Environmental has been monitoring conditions within the wetlands as well as adjacent streams. AWRI staff has been monitoring differences in water quality upstream and downstream of these restoration sites following precipitation events. They look at a broad number of water quality indicators to assess the health of the streams. Additionally, they monitor Lake Macatawa for water quality quarterly and sample for fish population annually. Niswander Environmental have been monitoring the water levels within our new wetlands, as well as monitoring plant growth. When invasive species pop up, Niswander and ODCMG staff treat these plants before they can spread and outcompete native plants.



*Middle Macatawa Wetland Restoration, located south of Adams Street between 84th Ave and 96th Ave*



*Staff from ODCMG and AWRI installing a sediment deposition pin in one of the wetlands to track how much sediment accumulates over time. On the ladder is Dan Callam, ODCMG and author of this article.*



*Tyler, Niswander Environmental, checking water levels in one of the structures at the Haworth Wetland*

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## **Algae Blooms - *What to know***

- Algae are microscopic plants that naturally grow in water
- A bloom occurs when algae grows rapidly in a confined area
- Factors that affect an algae bloom include excess nutrients, sunlight, calm water, and warmer temperatures
- Sediment, and the attached phosphorus, are the main water quality concerns in Lake Macatawa
- As we reduce the sediment going into the lake by using best practices, the water becomes more clear, allowing more sunlight
- There is already lots of phosphorus in Lake Macatawa to feed the algae that are already present
- In Lake Macatawa, algae blooms are a sign of improvement
- Algae blooms can sometimes (not always) be harmful and produce toxins that can make water unsafe to drink
- Lake Macatawa is not a source of drinking water

### **Contact Us**

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**(616) 395-2688**

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