



# Huron River Report

Published quarterly by the Huron River Watershed Council

SUMMER 2014



feature  
story

## Trail Towns of the Huron

### Part 3 in a series: the City of Ypsilanti

In the previous two issues of the Huron River Report, the communities of Dexter and Flat Rock were profiled on their journeys to becoming destinations on the Huron River for residents and visitors. This installment in the Trail Towns series profiles the City of Ypsilanti.

#### At River Mile 40

The City of Ypsilanti, home to river miles 42 to 39 on the Huron River Water Trail, is a small city that is distinctly urban and diverse, situated 10 miles east of Ann Arbor and 35 miles west of Detroit. Outdoor events are a regional draw featuring the Heritage Festival, Mittenfest, Michigan Summer Beer Festival, Orphan Car Show, and more. Ypsilanti is a historic community being the second city to incorporate in Michigan, and figuring prominently in the 19<sup>th</sup> and early 20<sup>th</sup>

century industries of railroad, air, and auto transportation. Many stunning buildings show this rich history through architecture. The Historic Downtown, Depot Town, and Cross Street make up the lively centers of the city where residents and visitors shop, go to school, live, come to work, eat, gather, and have fun.

This bustling setting contrasts with the serene corridor of green and blue that winds through the city's middle. The vision for Ypsilanti's riverfront came from the landscape architecture firm of the Olmsted Brothers, led by



Annual Orphan Car Show at Riverside Park in Ypsilanti. photo: courtesy of Visit Ypsi Now

Frederick Law Olmsted, Sr. who envisioned the Huron River as a necklace of water with vibrant green spaces dangling from it like gems. Sounds like a perfect setting for an afternoon of paddling!

For paddlers on the Water Trail or  
*continued on page 4*

## Ford Lake's Legacy • *The mixed history of the impoundment*

Throughout the Huron River watershed, and much of Southeast Michigan, the automotive industry shaped the land and waterways. Perhaps nowhere else is as emblematic of this connection as Ford Lake. Located just west of the Washtenaw and Wayne County border and south of I-94, Ford Lake, at 975 acres, is the third-largest

impoundment of the Huron River (after Belleville Lake just downstream of Ford Lake, and Kent Lake in Oakland County). At 30 feet deep, Ford Lake is the deepest of all the impoundments in the watershed (though not the deepest lake). Today, Ford Lake provides recreational use for hundreds of boaters and is the central feature for many residents.

#### Powering Henry Ford's Assembly Lines

The Huron River in eastern Washtenaw County has a steeper gradient than in other sections of the watershed and once contained rapids unlike other areas of Southeast Michigan. At the turn of the 20<sup>th</sup>

*continued on page 6*

INSIDE: UPCOMING EVENTS AND WORKSHOPS *HRWC Stewardship Awards*  
*The carbon footprint of water processing | Saving Water Saves Energy program update*



# Laura's Stream of Consciousness

Our State of the Huron Conference on April 24th was a great success with 175 attendees, compelling keynote speakers, 3 lively annual volunteer awards, and numerous breakout sessions on a diversity of topics.



Following the morning plenary session, we attended concurrent sessions on a diversity of topics before lunch. Scott Beckerman from Comerica welcomed the attendees to the locally-sourced lunch, followed by our annual volunteer awards (see next page).



Let me walk you through it: Michigan Economic Center Director's John Austin kicked off the morning with a talk on the Blue Economy: outlining that the economic and environmental health of Michigan lies in leveraging the natural resources of the region.

I then brought it down to the watershed level with this slide compiling all of our data (thanks to Paul, Kris and Ric), and good news it was!

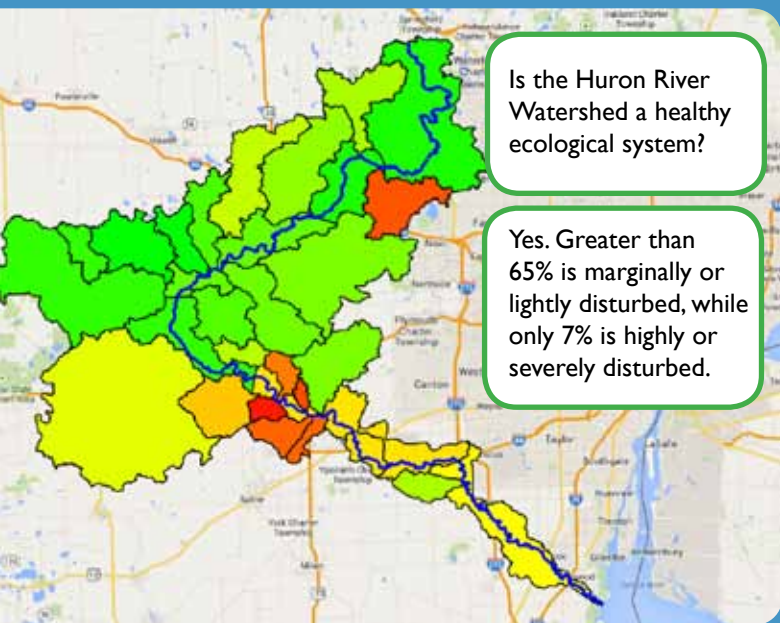


Back in the auditorium, Dave and Amy Freeman awed and inspired us with their three-year trip over 11,000 miles of North America by kayak, dogsled, foot, and canoe.

After that thrilling ride, additional concurrent sessions touched on opportunities with river recreation and economies, threats under climate change, fracking, and



aquatic invasives to strategies to bring more people in to our work. Mary Kerr, President and CEO of Ann Arbor Area Convention and Visitors Bureau, discussed the benefits of the Huron River as a recreation and tourist attraction for the area.



Thank you for coming out for a day of learning and sharing. We all got our fill of some good Huron love.

— Laura Rubin





# Stewardship Awards



## Mike Schultz, Partner of the Year

Spend a few moments with Mike Schultz ("Schultzzy") and soon you'll know that he's an avid fly-fisherman and ambassador of clean water and improved fish habitat. His fly fishing and guide shop, Schultz Outfitters, is on a banks of the Huron River in Ypsilanti. Schultzzy understands that rivers connect us to our past, to each other and to the future.

Schultzzy founded the Huron River Single Fly Tournament and the "F3T", the Fly Fishing Film Tour at the Michigan Theatre. Both events help HRWC raise money, membership, and river awareness. Despite his full schedule as a small business owner with at least 100 days a year guiding on the Huron River, Schultzzy participates in river clean ups and contributes his expertise to HRWC programs like RiverUp!. Schultzzy readily shares the beauty and bounty of the Huron River, as well as the importance of HRWC's work in the watershed.

## The Battersby Family, Volunteers of the Year

The Battersby family - Graham, Alison, Megan and Grace - is very active in HRWC events, contributing over 300 hours since 2010. In 2013 alone, the family's involvement totaled over 100 hours. 2013 family highlights include Grace becoming a trained leader in the Adopt-A-Stream program, Graham participating in large woody debris removal to facilitate paddling in small streams, and the whole family exploring Honey Creek through the Creekwalking program.



Graham also committed his own time and resources to develop his skills through Michigan State University's Lake and Stream Leaders Institute. He attended numerous conferences and seminars about freshwater science and management so that he could apply that knowledge to his volunteer stewardship. The Battersbys are a great example of a family that spends quality time with each other while learning, having fun, and making a difference!



## Dave Wilson, Herb Munzel Lifetime Achievement Award

When Dave retired to Belleville, Michigan in 2003, he continued a rich history of volunteerism and environmental advocacy by becoming a volunteer and member of HRWC.

Dave has been a tireless advocate for the Huron in Belleville and throughout the watershed. Dave became an HRWC board member in 2011. He created and led HRWC's stream-side education program, working with watershed youth. In recent years, he served on the Ypsilanti Township Water Conservation Advisory Commission and the Van Buren Township Environmental Commission. He is also the Program Chairman for the Pittsfield Grange, which offers science and math nights for local elementary schools. Dave notes, "It's a lot nicer now that things aren't nearly as adversarial as they were back in those days. It makes you believe in progress."

— Jason Frenzel, Margaret Smith and Paul Steen

recreation enthusiasts on the Border-to-Border Trail, Ypsilanti features amenities and diversions for getting off of the trail and into town:

- Features such as Depot Town's cobblestones and clock landmark *provide a gateway* into the downtown business district;
- Historic buildings and destinations *create a sense of place*;
- Downtown way-finding signage, pedestrian-centered streetscapes, and plenty of public parks create a *welcoming atmosphere*;
- A network of land and water trails, natural features, fishing docks, restaurants, shopping, lodging, banks, and other amenities provide *the right mix of services* for trail users; and
- *Trail-oriented events* offer four seasons of outdoor activity with themed walking tours, group paddles, and Southeast Michigan's full-service fly fishing resource Schultz Outfitters in Depot Town.



Opportunities exist for Ypsilanti to build on its reputation as a Trail Town. Possibilities include:

- Providing a shuttle service for paddlers and establish a livery for boat rentals;
- Adding canoe and kayak launches at key locations to access the city centers;
- Installing Huron River Water Trail way-finding signage for visitors arriving by canoe and kayak;
- Establishing a restaurant with waterfront dining on the river; and
- Connecting the Border to Border trail through town from EMU to Ford Lake.

### A Trail Town on the Cusp

A team of Ypsilanti community and business leaders, with facilitation and support from HRWC, are committed to leveraging local economic development through the Trail Towns process. Specific tasks are:

- Develop trail business ambassadors with existing businesses;
- Identify new business potential;
- Identify projects needing funding and develop grant proposals;
- Track progress of Water Trail development; and
- Implement priority actions of the Automotive Heritage Trail District Master Plan.

### Peninsular Park Improvements

Renovations are planned for Peninsular Park that will considerably improve the portage around the old dam from the former Peninsular Paper Company. This site, with funding from RiverUp! donors, will become a safer, well-marked portage for paddlers, as well as prevent additional bank erosion. The existing take-out is a floating platform in disrepair and requires full replacement. This project provides for a new prefabricated floating platform, a mulch path to the downstream launch, and Water Trail markers. Warning signage about the dam and safety buoys may also be included for the put-in area.

*Vintage postcard of Peninsular Grove.*

photo: courtesy of Visit Ypsil Now



Debbie Locke-Daniel, Executive Director of the Ypsilanti Area Convention and Visitors Bureau, sees great value in positioning the city as a destination for outdoor recreation. "As the City conducts final negotiations for a new Eastside Recreation Center on the Huron River front downtown," states Locke-Daniel, "a group of stakeholders are looking at how we connect water trail users to the Center and Downtown by providing a landing and way-finding signage for paddlers." She continues, "Recreational tourism is growing all over the United States and bringing more new business and young talent. We are very excited about these initiatives."

— Elizabeth Riggs

*continued on next page*



*Birdseye view of proposed Eastside Recreation Center on Water Street.* credit: Washtenaw County





# Automotive Heritage Trail District

Master Plan

2013.12.05



## Automotive Heritage Highlighted

The section of the river through Ypsilanti provides the opportunity to improve awareness of and access to historical automotive sites and the labor movement associated with the era of auto production. HRWC and SmithGroupJJR facilitated local stakeholders in creation of the master plan for this district over the past six months. The Master Plan documents seven auto heritage, four commercial, and 14 recreational destinations within the limits of the Automotive Heritage Trail District.

Goals include: complete site designs for improved canoe and kayak access; add five interpretive signs to the existing Motor Cities signs located at the Automotive Heritage Museum and Water Street; and augment Trail Towns marketing.

HRWC would like to thank the Austin Memorial Foundation, the Ypsilanti Area Convention and Visitors Bureau, and Eastern Michigan University UAW Local 1976 for support of this project.

Go to [www.riveruphuron.org](http://www.riveruphuron.org) to view the Master Plan.

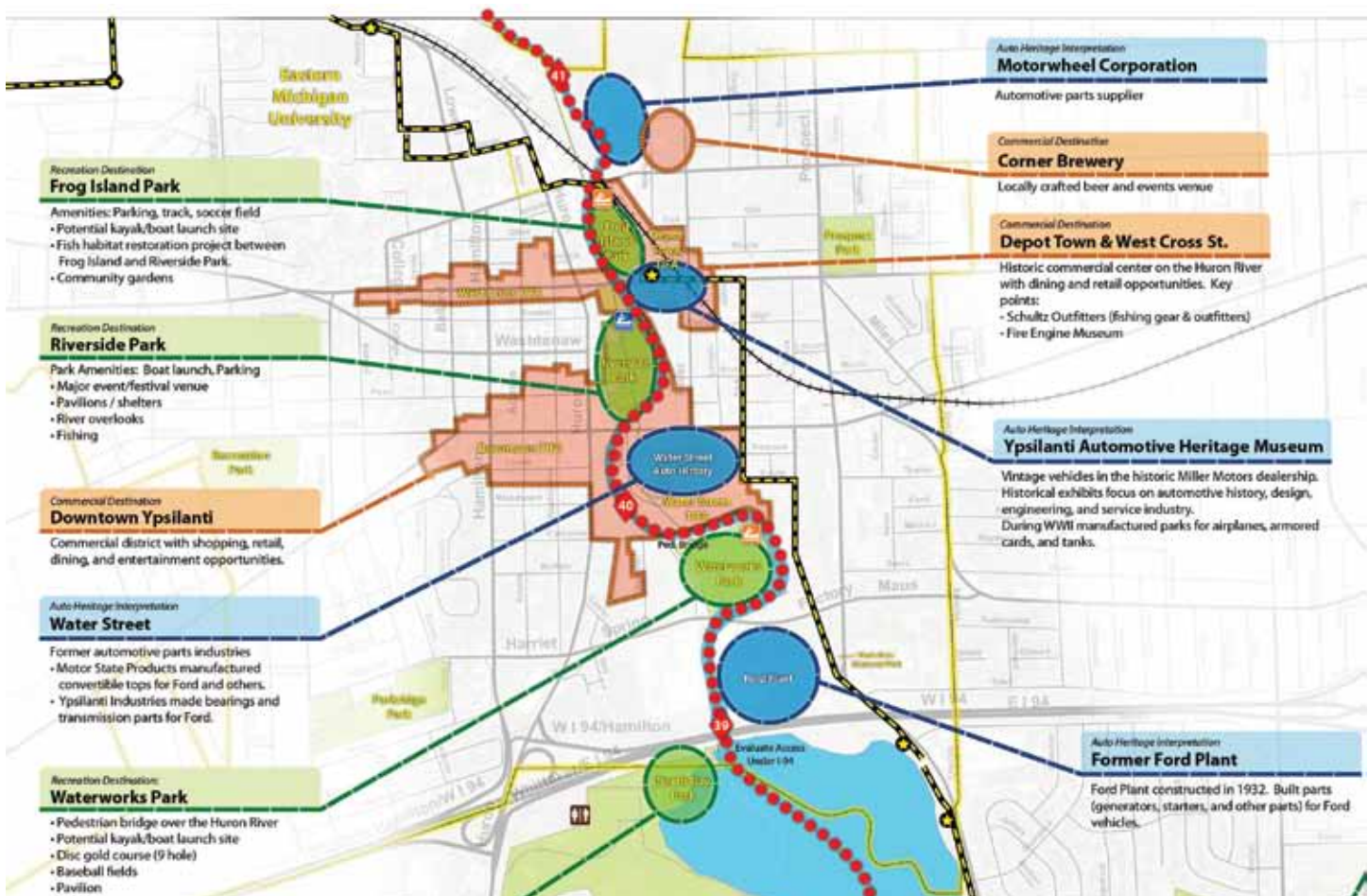
## WHAT IS A TRAIL TOWN?

A Trail Town is a destination along the Huron River Water Trail. Just as hiking trails connect people to the land, Water Trails help people discover rivers, connecting urban and rural communities with the outdoors. Trail users can venture off the trail to enjoy the scenery, services, and heritage of a community with its own character and charm.

## Legend

- Water Trail Centerline
- Water Trail Mile Marker
- Border-to-Border Trail (Existing)
- Recreation Destination
- Auto Heritage Destination
- Commercial Destination

- Restrooms
  - Canoe / Kayak Launch
  - Potential / Future Launch
  - Parks / Open Space
  - Border-to-Border Trail Map/Wayfinding
- NORTH
- 0' 1/8 mile (000') 1/4 mile (1320')
- SMITHGROUP JJR



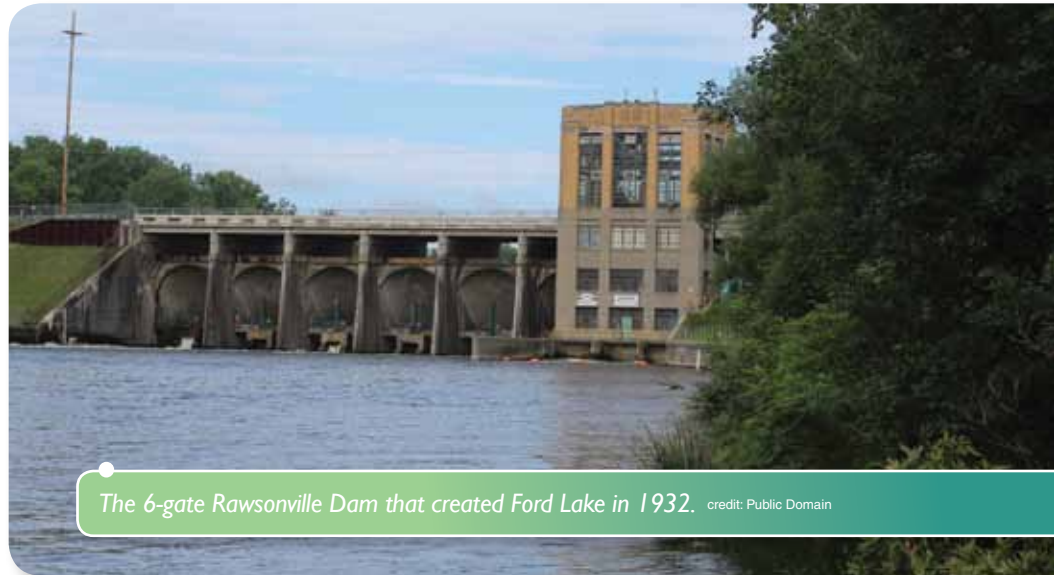
century, as much of the United States was becoming electrified, the energy contained in these types of rapids was coveted for potential conversion to electric energy as rapid industrial innovation was taking place.

By the 1920s, Henry Ford was producing affordable cars using assembly line technology at several plants around Detroit. He began buying real estate along rivers in the region that would provide water for production processes, potential hydropower for operation, and a recreational water feature for his managers and employees around which to locate their homes. The Huron River at Rawsonville in Ypsilanti Township provided a good location for all these features. In 1932, the dam was finally constructed, and the newly created Ford Lake drowned the town of Rawsonville, which residents had to abandon.

### The Painted Lake

The creation of Ford Lake completely changed the river's ecology. Rivers like the Huron naturally collect sediment that erodes off the land or collects in floodplains, and move it downstream. When that sediment-laden water slows down, like in an impoundment, the heavier sediment settles to the lake bottom. Embedded in the sediment that settled in Ford Lake was a wide array of material that washed off farm fields, stream banks, and town and city streets and into the Huron River. One important constituent was phosphorus, a nutrient necessary for plant growth. It binds to soil until it is dissolved in solution where it can be taken up by plant roots. Phosphorus is naturally occurring in soils and is added to fertilizers to enhance plant growth. Phosphorus is also excreted by animals (humans included) and thus is a by-product of waste water treatment.

As communities grew along the river, wastewater discharges increased in volume and storms washed more material off urban and suburban properties. Phosphorus levels in Ford Lake increased dramatically. This



*The 6-gate Rawsonville Dam that created Ford Lake in 1932.* credit: Public Domain

growth in phosphorus levels resulted in a dramatic increase in plant growth, particularly various types of algae. By the 1980s, seasonal algae blooms were an annual nuisance in Ford as well as Belleville Lake. In 1991, an algae bloom was so thick that Ford Lake appeared to be covered in green paint. The stinking mass of algae caused residents to call in a hazardous materials team to investigate the "paint spill." The team contacted the local Ford plant to find out if there had indeed been a spill, but the plant responded that they did not produce that color of paint.

These events led to a state study of phosphorus loading to Ford and Belleville Lakes, and HRWC worked to identify and quantify sources. The state Department of Environmental Quality (DEQ) then developed the first ever nutrient limit policy for the lakes and their watershed – limiting the phosphorus levels in Ford Lake to 50 µg/l and 30 µg/l in Belleville Lake. This policy, established in 1996, set pollutant reduction targets for waste water plants and industrial operations (point sources), as well as for diffuse (non-point) sources from stormwater runoff throughout the municipalities in the watershed.

### A Unique Voluntary Partnership

Following the development of the nutrient target, representatives

from the major point sources and the municipalities in the Ford and Belleville Lakes watershed – the Middle Huron Watershed – met to discuss the implications of the new policy and actions needed to meet the target. Over the course of several years this group met with representatives from the DEQ to negotiate regulatory terms. This resulted in a unique agreement: the Middle Huron Partnership to reduce phosphorus pollution.

In 1999, HRWC brought all the stakeholders and the DEQ together and drafted a cooperative agreement. The point sources (mainly the wastewater treatment plants) agreed to institute significant technological improvements to reduce the phosphorus content in their effluent, while municipalities agreed to enact policies and management practices to reduce phosphorus from stormwater runoff. The partnership resulted in significant effort. HRWC's Water Quality Monitoring Program documents the status and trends of phosphorus loading. Phosphorus reduction plans set out strategies to reduce inputs from sources. The point sources invested millions of dollars in treatment improvements and new technologies, resulting in a 41% reduction from treatment

*continued on next page*



plant outputs. The municipalities and agencies also invested in a myriad of policies and practices to reduce phosphorus from stormwater runoff. In total, the initiatives enacted through 2011 resulted in reductions in the phosphorus concentration entering Ford Lake to 52.8 µg/l – just above the targeted limit and representing a nearly 50% reduction.

### Test Subject

While the Middle Huron Partnership received state and regional recognition for this great success at source

*“Pea Soup” aptly describes this algae bloom on Ford Lake.*

credit: J. Lehman



reduction, Ford and Belleville Lakes still had phosphorus concentrations above targeted thresholds. As of 2006, while the average summer phosphorus concentration in Ford Lake was 35 µg/l (below the target), several samples were well above 100 µg/l.

A few years prior, Dr. John Lehman, a researcher at the University of Michigan, observed that the lake seemed to exhibit the worst algae blooms when the lake “turned over” in the summer. Turnover is a phenomenon of deeper lakes where the water separates into different layers across a temperature gradient, usually in the summer. When this

happens, the oxygen in the cold bottom layer gets used up.

Lehman's theory was that the deoxygenated water allowed anaerobic bacteria to release phosphorus that was otherwise locked up in sediments. When a strong wind developed, the lake would remix and a mass of phosphorus would enter the upper layer, which, in turn, would stimulate an algae bloom. Dr. Lehman documented that this was in fact occurring. So, while the Middle Huron Partners had significantly reduced new phosphorus inputs, the legacy phosphorus remained in the sediment at the bottom of the lake.

Dr. Lehman coordinated an experiment to test if the lake could avoid temperature separation, and thus reduce the algae blooms. He worked with Ypsilanti Township, who operates the Rawsonville Dam, to selectively open gates at the bottom of the dam to release bottom water and bypass the dam's electricity generating turbines when needed. This action, he hoped, would keep the bottom water mixed and oxygenated and prevent anaerobic bacteria from releasing phosphorus. The experiment occurred over four years, with years of inaction serving as control years. The result was positive. Opening the gates kept the bottom waters oxygenated and minimized algae blooms.

### The Future of Ford Lake

Ypsilanti Township has since installed a lake buoy to monitor temperature



*Tuttle Bridge (similar to the one pictured here) spanned the Huron River at Tuttle Hill Road, which was flooded in the making of Ford Lake. The bridge now lies on its side under 25 feet of water.* credit: Bentley Library

and oxygen levels in the deep part of Ford Lake. When oxygen levels begin to fall, they open the dam gates to remix the bottom water. This lake management, combined with the reduction in phosphorus inputs from upstream, have significantly reduced algae blooms and improved conditions in Ford Lake. Last summer was an exception when, despite the new controls, several significant algae blooms occurred. Yet, boaters return to Ford Lake, visitors frequent the six parks around the lake, and home buyers value lakeside properties. As a river impoundment, Ford Lake will likely never become the “sportsman's paradise” originally envisioned by the Ford family. Phosphorus remains in the sediment – a legacy that will continue to require active management for the foreseeable future. With thoughtful, cooperative management, Ford Lake can be managed as a valuable water resource for the many who reside there or visit each year.

— Ric Lawson

**\$20,000 and counting. That's how much we've raised with your support!** **Books By Chance** donates the proceeds from their internet sales of old and unwanted books, CDs and DVDs to HRWC. We like the slightly esoteric, academic, scholarly and especially university presses. To put your “treasures” to work for HRWC bring your donation to the HRWC office, 9am-5pm weekdays. We will handle the rest. QUESTIONS: Rebecca Foster (734) 769-5123 x 610 or rfoster@hrwc.org.

Founded in 1965, the Huron River Watershed Council (HRWC) is south-east Michigan's oldest environmental organization dedicated to river protection. HRWC works to inspire attitudes, behaviors, and economies to protect, rehabilitate, and sustain the Huron River system.

HRWC coordinates programs and volunteer efforts that include pollution prevention, hands-on river monitoring, wetland and floodplain protection, public outreach and education, and natural resources planning.

Individuals, local businesses and more than 40 communities support HRWC's work through voluntary membership.



1100 North Main Street, Suite 210  
Ann Arbor, Michigan 48104  
(734) 769-5123 • [www.hrwc.org](http://www.hrwc.org)



[facebook.com/huronriver](https://facebook.com/huronriver)



[twitter.com/hrwc](https://twitter.com/hrwc)

The Huron River Report is published quarterly. Its content is prepared by HRWC staff and does not necessarily reflect the opinion of board members.

New HRR layout: S&J Design Studio

Graphics and quarterly design:  
Laughing Goat Arts

Huron River Report © 2014

# The Huron River Watershed







Front row: Laura, Jennifer, Rebecca Esselman, Elizabeth, Margaret and Kris. Back row: Ric, Pam, Jason and Paul.  
Not pictured: Rebecca Foster



## Huron River Watershed Council Staff

(734) 769-5123

**Rebecca Esselman** x 611

Watershed Planner  
resselman@hrwc.org

**Jennifer Fike** x 604

Finance Manager  
jfike@hrwc.org

**Rebecca Foster** x 610

Development Associate  
rfoster@hrwc.org

**Jason Frenzel** x 600

Stewardship Coordinator  
jfrenzel@hrwc.org

**Pam Labadie** x 602

Marketing Director  
plabadie@hrwc.org

**Ric Lawson** x 609

Watershed Planner  
rlawson@hrwc.org

**Kris Olsson** x 607

Watershed Ecologist  
kolsson@hrwc.org

**Elizabeth Riggs** x 608

Deputy Director  
eriggs@hrwc.org

**Laura Rubin** x 606

Executive Director  
lrubin@hrwc.org

**Margaret M. Smith** x 605

Director of Development  
msmith@hrwc.org

**Paul Steen** x 601

Watershed Ecologist  
psteen@hrwc.org



# HRWC Events and Workshops

JUNE • JULY • AUGUST • 2014

## River Scouts Training

June 10, 6:30 - 8:30 pm

*Scout a local stream with a protective eye, looking for potential problems, we'll teach you what to look for!*

Details: [www.hrwc.org/volunteer](http://www.hrwc.org/volunteer); [jfrenzel@hrwc.org](mailto:jfrenzel@hrwc.org)

## Stormdrain Art Contest at the Ann Arbor Mayor's Green Fair

Friday, June 13, 6 - 9 pm, Main Street, Downtown Ann Arbor

*Come try your hand at decorating one of these curbside connections to the Huron.*

Details: [www.hrwc.org/adoptastormdrain](http://www.hrwc.org/adoptastormdrain)

## 34th Annual Huron River Day

Sunday, July 13, 12 - 4pm, Gallup Park, Ann Arbor

*Celebrate the Huron with HRWC and others. \$5 canoe and kayak rentals, music, food, fishing, and family activities. The fun starts in the morning with the Gallup Gallop run.*

Details: [www.a2gov.org/hrd](http://www.a2gov.org/hrd)

## Measure and Map Training

August 3, 2 - 5 pm

*Learn to read the river by characterizing the bed, banks, and other indicators of stream health.*

Details: [www.hrwc.org/volunteer](http://www.hrwc.org/volunteer); [jfrenzel@hrwc.org](mailto:jfrenzel@hrwc.org)

## River Cleanup

August 16, Time TBD (am)

*Near Milford and Flat Rock we'll uncover tons (literally!) of trash.*

Details: [www.hrwc.org/volunteer](http://www.hrwc.org/volunteer); [jfrenzel@hrwc.org](mailto:jfrenzel@hrwc.org)



Join the fun at the Mayor's Green Fair:  
design your stormdrain and then bring  
your ideas to life right on the street!



There is **no wi-fi** on the river but we  
**promise** you a **better connection....**  
See **page 12** for more **recreation** events.

FIND MORE EVENTS, VOLUNTEER OPPORTUNITIES AND WORKSHOPS ONLINE  
[WWW.HRWC.ORG/VOLUNTEER](http://WWW.HRWC.ORG/VOLUNTEER) • [WWW.HRWC.ORG/SUMMER-EVENTS](http://WWW.HRWC.ORG/SUMMER-EVENTS)





# From Source to Source • *The energy and carbon in our water supply*

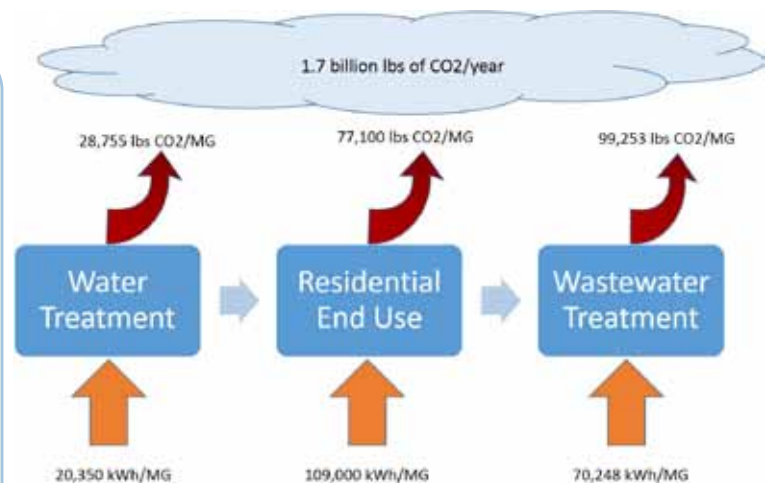
How much energy is required to provide a person with water each day? A lot. Energy is necessary to move, treat and heat water. Since most energy production emits carbon dioxide (CO<sub>2</sub>), water use also contributes to global climate change. Decisions related to water use and management can help reduce the amount of energy used throughout the water use cycle. Through water conservation, efficiency, and reuse, residents can lower utility bills, decrease the carbon footprint associated with water use and protect local freshwater resources.

## The Water Use Cycle

Few people pay attention to how water arrives to their homes on a daily basis. A vast network of pipes and pumps move water from source to treatment to homes and back. Ann Arbor alone manages 490 miles of water mains, four remote pump stations and two elevated tanks to serve 125,000 people with potable water. Water and wastewater treatment represent 50% of the City's total energy bill.

First, water is pumped from its source to a treatment plant where the water is filtered and disinfected to meet drinking water standards. Then

*Estimate of total carbon dioxide released from the pumping, treating and heating of water for residential use in the Huron River watershed. Orange arrows represent energy inputs during each phase of the water cycle. Red arrows show carbon outputs.*



the water is pumped again throughout the community where, on average, 17% is heated for residential use. After water is used, the wastewater is treated before it returns back to the river. Each of the many stages in the water use cycle require energy.

In order to understand energy use and carbon emissions associated with water use in the watershed, HRWC collected water and energy data from 10 drinking water and 17 wastewater treatment utilities in the watershed.

## The Energy Intensity of Water

The total annual energy used to *produce drinking water* in the watershed (for the utilities that submitted data) is just over 22 million kilowatt hours (kWh), the equivalent of running 502 central air conditioners year-round. The total annual energy used to *treat wastewater* in the watershed is nearly 66 million kWh (equivalent to 1,500 central air conditioners running for a year). Compared to national averages, energy use in the Huron is 10% higher for drinking water

production and 24–43% higher (depending on treatment type) for wastewater treatment. There are many opportunities to improve efficiency within local water utilities.

Energy used for residential water heating is approximately 109,000 kWh per million gallons of water. At the household level, on average, just over 6000 kWh are used annually to heat water. This is similar to running a central air conditioner for 51 days. Energy embedded in residential water exceeds that of both water treatment and wastewater treatment.

## The Carbon Footprint of Water

Knowing Michigan's electric supply mix and the energy intensity of the stages of the water cycle, the carbon intensity can be estimated for the use of publicly supplied and treated water in the watershed. The energy used for water treatment, residential end-use and wastewater treatment add over 205,000 lbs of CO<sub>2</sub> per million gallons. For the water utilities that provided data for this report, more than 8.5 billion gallons of water are produced each year in the watershed. Associated with that water is 1.7 billion lbs of CO<sub>2</sub>, which is equivalent to the annual emissions from over 162,000 passenger vehicles. It would take over 600,000 acres of forest one year to sequester this amount of carbon!



*A simplified water use cycle. Energy is used in most of the steps of the water cycle.* graphic: modified from California Energy Commission, 2005 Integrated Energy Policy Report

*continued on page 12*

## From Source to Source

continued from page 11

### The Role of Water Conservation and Efficiency

By changing water use practices to use less and retrofitting homes with appliances and fixtures that require less water, a household can save money on both energy and water bills, reduce demands on local water resources, reduce demand for polluting energy sources and reduce the resulting greenhouse gas emissions.

Often overlooked when identifying ways to reduce carbon emissions, water conservation and efficiency – at both the utility and individual household level – hold the potential for significant gains in the reduction of a community's contribution to global climate change. Reducing water use, particularly hot water use, is something individuals and families can do to reduce their carbon footprint. To learn more about water saving practices, visit [h2oheroes.org](http://h2oheroes.org).

HRWC would like to thank Masco Corporation for the support of this project.

—Rebecca Esselman



*Suds on the River*  
2014

*Suds On the River has a new view on Ford Lake in Ypsilanti Township*

**SAVE THE DATE**  
Thursday the 11th of September

## Special Recreation Events continued from page 10

### Swim Baseline Lake

Sunday, July 20, 8:30 AM, Baseline Lake, Michigan Sailing Club, Dexter (1-mile and 2-mile swim)

*Jump in for our annual summer tradition; leave the chlorine behind, and try a swim in the river channel through Baseline Lake. Back by popular demand, we are including a 2-mile swim, in addition to our traditional 1-mile swim. All swimmers are required to register in advance to swim. After the swim join us for a continental breakfast of hot coffee, fruit and bagels.*

**Cost:** \$25 for HRWC members, \$35 for non-members, and \$40 for a family.

**Register at:** [www.hrwc.org/summer-events](http://www.hrwc.org/summer-events)



### Single Fly Tournament

**Tournament:** Sunday, July 20, 10 AM

Schultz Outfitters, 4 E. Cross Street, Ypsilanti

**After-Glow:** Sunday, July 20, 5 PM

Schultz Outfitters, 4 E. Cross Street, Ypsilanti

*Join us for this year's 4th annual Huron River Single Fly Tournament! Presented by Schultz Out-*

*fitters and sponsored by Ann Arbor Trout Unlimited. Pick your best fly and fish it till you lose it! Prizes include fly rods, reels, gear, gift certificates*

*and more. All proceeds benefit the Huron River Watershed Council's RiverUp! and Huron River Water Trail projects. The Single Fly tournament is an annual event that celebrates watershed protection and a special group of folks that spends a great deal of time on the river. Anglers are important stewards of the watershed because they are out in the field observing and monitoring the Huron River and its tributaries throughout the year. HRWC greatly values the anglers for their stewardship because they often serve as our eyes and ears out in the field when we cannot be there. Join us for the After-Glow at Schultz Outfitters to help celebrate the Tournaments participants, as well as, your hand in helping watershed protection!*

**Cost for this event is:**

\$20 for After-Glow

\$50 for Tournament ticket

\$70 for Tournament + After-Glow

\$80 for Tournament + 12-month HRWC membership

\$100 for Tournament + After-Glow + 12-month HRWC membership

**Register at:** [www.hrwc.org/summer-events](http://www.hrwc.org/summer-events)

**Information:** 734-769-5123 x 612 or [recreation@hrwc.org](mailto:recreation@hrwc.org)







# Saving Water Saves Energy • Program opens doors and inspires increased water conservation

*"I keep a dish pan of water in my sink and use it for soaking and scraping dirty dishes, instead of using running water from the faucet . . . I collect water from my shower in a bucket and use it to flush my toilet . . . I have replaced my bathroom fixtures with water efficient fixtures that have been certified by WaterSense . . ."*

Launched in the fall of 2011, the Saving Water Saves Energy Project has heard from hundreds of watershed residents over the last three years on how they save water and the energy used to pump, treat and heat it. At the forefront of these lessons, saving water is easy and inexpensive, especially when you build efficiency into your home's plumbing systems and incorporate water saving habits into daily routines.

## Talking with Watershed Residents

HRWC inserted the Saving Water Saves Energy message broadly into all of its education and outreach programming and featured it in watershed calendars distributed to over 78,000 people in Southeast Michigan. The project also provided residents with over 3,000 native plant seed packets, 1,500 five-minute shower timers and 1,000 toilet leak detection kits. Over five hundred watershed residents "pledged to save" and HRWC staff and volunteers met more than 6,000 people at over 30 public festivals and 12 "save water workshops" in nine communities.

HRWC partnered with Detroit Public Television to produce and air "A Hero Rises" a public service announcement promoting water efficiency measures and EPA's WaterSense labeling program. Students from Ann Arbor Skyline High School added to this digital communications tool by producing three "how-to" videos, targeting the message to their high school peers, and hosting a five-minute shower contest competition.

Saving Water Saves Energy worked with the City of Ann Arbor and DTE Energy. DTE published the project's water-energy efficiency tips and information in EnergySmarts, a green living magazine that reaches 16,000 residential DTE customers throughout Southeast Michigan. *Water Matters*, the City of Ann Arbor's newsletter, which is inserted into the utility bills of 114,800 customers, also featured the project.

## Increasing Expertise

Saving Water Saves Energy provided HRWC with unique opportunities to increase its expertise on water-energy issues. HRWC collected data from the watershed, getting water and energy use numbers from water utilities, wastewater treatment plants and residents to estimate water-related energy use and carbon emissions. HRWC will share the results, "*The Carbon Footprint of Domestic Water Use in the Huron River Watershed*," with local communities and other river groups nationally.

## A Committed Foundation Partner

Saving Water Saves Energy would not have been able to raise public awareness on the water-energy nexus without the support of the Masco Corporation Foundation. The Foundation helped shape the project, providing both the financial resources and the technical expertise needed to maximize its impact. Craig Selover, Director of Plumbing Product Technology at Masco Technical Services, and an industry expert in water efficiency standards and products, acted as project consultant, sharing research and connecting HRWC staff with key programs like EPA's WaterSense. Masco's Delta Faucet Company is a two-time WaterSense Manufacturer Partner of the Year for its continued efforts to

Students at Schoolcraft College pledge to save water and energy at the school's recent Earth Day Festival.

credit: E. Hochberg



support WaterSense labeled products and water efficiency—100 percent of its lavatory faucets and showerheads have met EPA's efficiency and performance criteria.

## Influencing Policy

On the policy front, Saving Water Saves Energy opened doors at both the local and state level. Locally, the project fostered new relationships with many of the watershed's smaller water utilities and wastewater treatment plants. In the fall of 2013, HRWC, along with the Alliance of Water Efficiency (AWE), shared the project and water-efficiency policy lessons with the Michigan Department of Environmental Quality. The meeting led to a presentation for the State's Water Conservation and Water User Work Groups, which identify and promote water conservation and use efficiency practices to preserve the quantity and quality of Michigan's and Great Lakes water resources.

## Act Two

HRWC hopes to further the impact of Saving Water Saves Energy by wrapping the project into its climate resilient communities work. The local water-energy research will help utilities identify where large-scale improvements in energy efficiency can be made and provide a benchmark for improvement. The project's education and outreach campaign is a launching pad and scalable program that can be used to reach even more residents. Stay tuned.

—Pam Labadie



HRWC would like to extend our gratitude to everyone that helped protect the Huron River by giving of their time, talent, in-kind contributions and financial resources.

## Thank you to our generous supporters• February through April, 2014

Richard O. Abel and Barbara C. Hodgdon  
Donald and Carol Afflerbaugh  
Allegra Print & Imaging  
Mary Anderson  
Norman and Sandy Andresen  
Arbor Teas  
Timothy Athan  
Brian T. Athey and Deborah Walker  
Robert Ayotte and Jennifer Ekstrom  
James Azim  
Mary and Bill Bajcz  
Noemi Barabas and Peter T. Jung  
Roderick and Julia Beer  
Christopher D. Benedict  
Barbara Levin Bergman  
David Blochwitz  
Books By Chance  
Dietrich Bouma and Deena Thomas  
Kathryn M. Bowring and Paul T. Reid  
George Brach and Kevin Sharp  
Colin Brooks and Margaret Weiss  
David and Sharon Brooks  
Peter D. Brown and Maria Leonhause  
Thomas A. and Sally B. Brush  
Lance Burghardt  
Susan Carter  
Jennifer Casler  
Jack Cederquist  
Charles Reinhart Company Realtors  
Mary S. Christianson  
Gary Cifaldi  
City of Ann Arbor  
Jackie A. and Mary Jane Clark  
Fredda Clisham  
Bruce E. Cohan  
Comerica Bank  
Ralph and Joann Cook  
Howard and Anne Cooper

John A. Copley and Janice Berry  
Aline Cotel  
Robert J. Courdway  
Paul and Patricia Cousins  
Charlotte R. Cowles and Michael H. Belzer  
Lisa Cronin and Ariel Nicolaci  
Jim Crowfoot and Ruth Carey  
Cheryl and David Darnton  
Mary H. Dobson  
ECT Inc.  
William D. and Karen A. Ensminger  
Rebecca and Peter Esselman  
John Etter  
David L. Fanslow and Joann F. Cavaletto  
Joyce A. and Joseph E. Fennell  
Gwynne Fisher  
John W. Ford  
Steven Francoeur  
Fred A. and Barbara M. Erb Family Foundation  
James A. Frey and Lisa Brush  
Pat Frey and Larry Deck  
Geddes Lake Condominium Association  
Sidney Gendin and Joellen Vinyard  
Michael Gowing  
Dunrie A. Greiling and David B. Higbie  
Sabrina L. and Douglas B. Gross  
Iris M. and Frederick Gruhl  
Kathleen M. Hanlon-Lundberg and L. Eric Lundberg  
Nicole and Eric Hann  
James W. Hansen  
Naomi and Theodore Harrison  
Sally Hart Petersen  
Lee W. Hartmann  
Jane A. and Daniel F. Hayes  
Laura Lee Hayes and Robert C. Brill  
Tamara Hayes  
Rebecca Head and David Stead  
Lucia Heinold  
Magdalena Herkhof  
William and Susan Hermann  
John R. and Martha K. Hicks  
Rebecca S. Horvath  
Raburn L. Howland and Katherine Kurtz  
Patrick Lee Hudson  
Owen C. and Jane R. Jansson  
Eugene and Nancy Jaworski  
Kermit H. Jones  
Barb and Lenny Kafka  
Michael and Karen Kairys  
David and Theresita Morre Kluck  
Stewart Knoepp

Joan Kooistra Brush and Andrew Brush  
James Kralik  
Myra Larson  
Jo Latimore and Ralph Kridner  
John Lenters  
Graham E. Lewis  
LimnoTech, Inc.  
Nancy Marie Lindner  
Lennart H. and Betty Lofstrom  
Barry Lonik  
Dean and Gwendolyn Louis  
Joan Lowenstein and Jonathan Trobe  
Dennis Lowrey  
Jon D. and Sally L. Lusk  
Carolyn J. Mahalak  
Tracey Marchyok  
Maureen Martin and Mike Penskar  
Rick Martin  
Frederick C. Matthaei, Jr.  
David McColl  
A. Kathleen McCreedy  
R. Griffith and Patricia McDonald  
Harvey Michaels and Gloria Helfand  
Vera Jean and Oscar Montez  
Thomas E. and Eleanor S. Moore  
Bernice Morse  
Mike Mouradian  
Ruth Munzel  
Gerry Neumeier  
Charles and Sharon Newman  
Larry and Sarah Nooden  
Linda Novitski  
Diane O'Connell and James R. Miller  
Pure Oakland Water  
Jerry and Vicki Paulissen  
Lisa D. and Max Perschke  
Pfizer  
Bill Phillips  
Matthew Phillips  
Plantwise, LLC  
Ethel K. Potts  
Evan Pratt and Ann Taylor Pratt  
Ulrich and Carolyn Raschke  
James and Ligia Reynolds  
Heather and Shawn Rice  
Joseph Richert  
The River Network  
Rizzolo Brown Studio  
Ann and Patrick Rodgers  
Amy Sample and Jim Azim  
Adam and Amy Samples  
Mary Ann Schaefer  
Sheila Schueller and Jason Kahn  
Inger and William Schultz  
Serena Ann Schwartz  
John Seeley  
Joanna J. and Michael F. Semanske

David G. and Elvera Shappirio  
Dr. Edwin and Shirley Smith  
Jonas L. Snyder and Elsie Dyke  
Rob Myllyoja  
Kay E. Stremler and Ron Sell  
Tom Stulberg  
J. Evan Swedish  
Sweet Gem Confections  
F. Brian and Lee Talbot  
Sylvia M. and Thomas E. Taylor  
William and Villabeth Taylor  
Doris H. Terwilliger  
Susan Thompson  
Jim and Mary Lynn Thomson  
Carrie Turner and Erin Trame  
Lynn Vaccaro and Jason Demers  
Chatura Vaida  
Annette van der Schalie  
Scott and Ruth Wade  
Washtenaw Community College  
Washtenaw County Parks and Recreation  
Washtenaw County Water Resources Commissioner  
Kathie K. Weinmann  
Joe and Judith Wilhelme  
James O. and Mary Ann Wilkes  
David Williams  
George W. and Patricia S. Williams  
Jay E. and Sherry L. Williams  
Richard C. Wilson  
Charlotte A. Wolfe  
Korinne and Joseph Wotell  
Lisa Wozniak and Kenneth Simon  
Jennifer Wyckoff  
John A. and Valerie K. Yodhes  
Jason and Margaret Zawacki  
Zingerman's Community of Businesses

*You are important to us!  
If your name is misspelled,  
incorrectly listed, or omitted,  
please accept our sincere  
apologies and bring the error  
to our attention so that we  
may correct our records.  
Contact Margaret Smith at  
msmith@hrwc.org or  
(734) 769-5123 x 605.*





## Thank you to our volunteers • February through April, 2014

Jane Alexander	James Carbone	Karen Gladney	James Kralik	Caitlin Peffers	Maddie Szucs
Sarah Alexander	Robert Carr	Earl Goddin	Rebecca Kralik	Russell Perigo	Morgan Szucs
David Amamoto	Anandhi Chandran	Chris Godwin	Jan Krause	Bill Phillips	Anne Tavalire
Norman Andresen	Olivia Chapman	Diane Goff	Nancy Krause	Richard Pierce	Sivagnanam Thamilselvan
Dominique Ang	Richard Chase	Joshua Goodman	Pritham Kura	David Quinn	Veena Thamilselvan
Trip Apley	Eric Christian	Sarah Gowell	Connor Lang	Tammy Rabideau	Vijayalakshmi Thamilselvan
Bruce Artz	Ethan Chupp	Danielle Gray	Drew Lathin	Simone Racine	Susan Thompson
Lydia Austin	Rodney Cox	Prerana Gunda	Abigail Lemmon	Christina Radcliffe	Emily Torrance
Yunsheng Bai	Dianne Curry	Rajendra Gunda	Emily Levine	Ellen Rambo	Megan Torrance
Mary Bajcz	Lisa Denys	Lori Hachigian	Graham Lewis	Lindsay Randolph	Jesse Tripp
Noemi Barabas	Claire Dijak	Katie Beth Halloran	Kevin Li	Paul Reaume	Lewis Tripp
Rachel Barron	Jeff Dillon	George Hammond	Fangwei Luo	Truly Render	Chatura Vaidya
Eric Bassey	Michael Diramio	Judith Heady	Tracey Marchyok	Catherine Riseng	Brandon Vick
Graham Battersby	Nova DiRamio	Joan Hellmann	Alex Martin	Mary Robare	Deborah Weiker
Kaylee Baumia	Elizabeth Dorgay	Magdalena Herkhof	Dylan Martin	Donald Rottiers	Kathie Weinmann
Kristen Baumia	Lisa Dorwin	Grace Hilbert	John Martin	Mollie Ruth	Ryne Weisenberger
Mia Baumia	Cathy Dyer	Fred Homburg	Rick Martin	Chiara Kalogjera-Sackellares	Margie Weiss
Marie Beaudoin	Sharon Eagle	Sydney Hutnik	Ed McCarter	Josh Carn-Safterstein	Barry White
Scott Beckerman	Lauren Eaton	Mark Irish	David McColl	Mark Schaller	Tom Wieckowski
Jackson Bennett	Lukas Eddy	Donald Jacobson	JoLisa McDay	Larry Scheer	Patrick Williams
Luther Blackburn	Jayne Evans	Leena Jong-paiboonkit	Jenny McGuckin	Bruce Schlansker	David Wilson
Howard Borden	Ronald Fadoir	Aba Jung	Patti McCall McGuire	Emily Schlansker	Susan Wooley
Lynn Bradley	Robert Finn	Kinga Jung	Josh Miller	Katy Shea	Al Wooll
Melanie Brennan	Dawn Fyrciak	Zoltan Jung	Kate Mlinarich	Laura Shiltz	Pranav Yajnik
Max Bromley	Jacquelyn Ganfield	Janet Kahan	Cindy Morgan	Gabriela Shirkey	Arthur Yang
Colin Brooks	John Gannon	Kandice Karl	Corrie Navis	James Smith	Charles Zhou
David Brooks	Wally Gauthier	Leslie Kellman	Dawn Nelson	Naseeb Souweidane	
Lillia Brooks	Daniel Gergics	Emma Kelly	Alexandra Lepeschkin-Noel	Kenneth Spears	
Sharon Brooks	Lilla Gergics	Jenny Kerber	Daniel O'Donnell	Cole Stuart	
Susan Bryan	Peter Gergics	Larry Kerber	Elsie Orb	Evan Swedish	
Erin Burkett	Ryan Gibson	Andrea Kline	Cindy Overmyer	Ellen Szucs	
Skylar Burkhardt	Joseph Girgente	Jennifer Knight	Jerry Paulissen	Julie Szucs	
Lee Burton	Dave Girvan	Yen Kong	Spencer Paulissen		
Ray Caleca	Mark Girvan	Stevi Kosloskey	Bruce Peffers		
Ethan Cannaert	Zachery Gizicki				

## Huron River Watershed Council Board of Directors

### Executive Committee

Mary Bajcz  
Chris Benedict  
Janis Bobrin  
Paul Cousins  
Gene Farber (Treasurer)  
John Langs  
Dick Norton (Vice Chair)  
Diane O'Connell  
Evan Pratt (Chair)

### Board of Directors

Norm Andresen  
Scott Barb  
Sue Bejin  
Matt Bolang  
Eunice Burns  
Cheryl Darnton  
Bob Demyanovich  
Steve Francoeur (Alternate)  
Fred Hanert  
Michael Howell  
Mark Irish  
Gerry Kangas  
Matthew LaFleur  
Barry Lonik  
Sally Lusk  
Cheryl Mackrell  
Jim Martin  
Lisa McGill  
Scott Munzel  
Erik Petrovskis  
Molly Robinson  
Peter Schappach  
Sue Shink  
Deeda Stanczak  
Barry White  
Dave Wilson  
Lisa Wozniak  
Steven Wright  
Melissa Zaksek (Alternate)



Mink - J. Wolf



Huron  
River  
Watershed  
Council

*Protecting the river since 1965*

1100 North Main Street  
Ann Arbor, MI 48104

Non-Profit Org.  
US Postage  
**PAID**  
Ann Arbor, MI  
Permit #435

*The Huron River Watershed Council receives contributions via payroll deduction through Earth Share of Michigan.*



Printed on 30% minimum post-consumer  
recycled content paper.



# Enjoy. Protect. Join.

*It all begins with clean water, that's why rivers matter to a community.*

*I wish to join your efforts to protect the Huron River in the amount of:*

- |   |  |
|---|--|
| <input type="checkbox"/> \$35 <b>Mayfly</b>             | <input type="checkbox"/> \$500 <b>Salamander</b>         |
| <input type="checkbox"/> \$50 <b>Crayfish</b>           | <input type="checkbox"/> \$1,000 <b>Smallmouth Bass</b>  |
| <input type="checkbox"/> \$100 <b>Dragonfly</b>         | <input type="checkbox"/> \$2,500 <b>Great Blue Heron</b> |
| <input type="checkbox"/> \$250 <b>Soft Shell Turtle</b> | <input type="checkbox"/> Other _____                     |

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

☐ Please send me email updates at:

\_\_\_\_\_



Send this form with your check to HRWC, 1100 North Main Street, Ann Arbor, MI 48104 OR Save postage and the environment by donating online at [www.hrwc.org/support-us](http://www.hrwc.org/support-us). HRWC is a 501©3 organization and contributions are tax deductible.