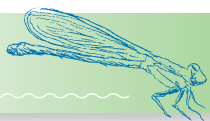




# Huron River Report

Published quarterly by the Huron River Watershed Council

SPRING 2013



feature  
story

## 200 Years of Michigan Fish

### Part 2 of a four-part series on Michigan's fisheries

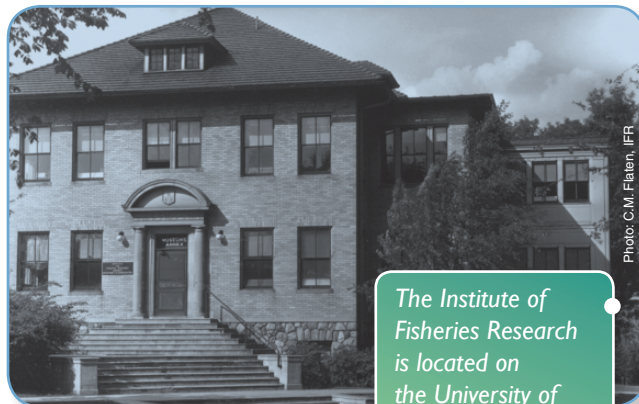
Michigan boasts 11,000 lakes, 36,000 miles of streams and rivers, and is surrounded by the largest freshwater lakes on Earth. Over the past two hundred years European settlers and their descendents have done much to alter these natural systems and the creatures that inhabit them. This article is the second in a series of four articles that examine how humans have changed and are still changing fish diversity and abundance in Michigan through greed and stewardship, ignorance and intention.

#### 1930-1967: Fisheries Research

In 1921, the state legislature created the Michigan Department of Conservation (MDC), the forerunner to the current Department of Natural Resources. The legislature consolidated the various state natural resources agencies under the roof of the MDC, including the

Fisheries Commission (discussed extensively in the Winter 2012 Huron River Report). In 1930, the MDC took a huge leap ahead for fisheries management with the founding of the Institute for Fisheries Research (IFR). The research produced from IFR quickly began to steer the course of fisheries management, not only for Michigan, but also for the whole country.

The IFR, located on the University of Michigan's Ann Arbor campus, was, and still is, a place for professional scientists to collaborate with students and professors to combine scientific research with practical on-the-ground management. From 1930 to 1945, IFR developed and implemented almost



The Institute of Fisheries Research is located on the University of Michigan campus in the Museums Annex Building, seen here as it appeared on May 12, 1942. It hasn't changed much over the years.

all of the modern day concepts of fisheries management. Activities included:

1) creel censuses- checking the catches of sport fisherman; 2) lake and stream surveys; 3) lake and stream habitat improvement structures; 4) nursery

*continued on page 5*

## RiverUp!date • Highlights of 2012

The impressive collective effort and energy of HRWC and its partners in RiverUp! yielded a number of accomplishments across the three areas of the "Huron River Renaissance." This public-private partnership envisions the river as the new Main Street in our river towns, from Milford to Flat Rock, by investing in recreation infrastruc-

ture, improving the river's ecological health, and revitalizing the river corridor with local, place-based economies.

#### Invest in River Recreation

The Huron River is one of the most popular paddling and fly-fishing rivers in Michigan, and is home to the busiest livery. The Huron River Water Trail

builds on that recreation interest by installing consistent way-finding signs along the Water Trail's 104 miles, fixing up access points, and enhancing education and information about recreation on the Huron.

RiverUp! set the standard for quality on the Water Trail with completion of the first "bricks and mortar" project at the Superior Dam portage by installing

*continued on page 4*

**INSIDE: UPCOMING EVENTS AND WORKSHOPS** HRWC connects with dam owners  
Huron River Paddler's Companion debuts | 2012 water quality sampling shows mixed trends





# Laura's Stream of Consciousness

This fall, HRWC secured federal grant funds allocated from the Clean Water Act to protect our highest quality creekshed, Portage (also known locally as Hell Creek). Tucked in the northwest corner of the Huron River watershed, Portage Creek begins in Ingham, and flows through parts of Jackson, Washtenaw, and Livingston counties before emptying into Big Portage Lake. It is easily one of the region's healthiest and most scenic systems, and protection of its streams and lakes is the priority. Land uses are 35% agriculture, 15% built, and 50% undeveloped. The Waterloo and Pinckney State Recreation Areas are located here along with the Villages of Stockbridge, Gregory, and Unadilla.

In 2010 Elizabeth Riggs developed a watershed management plan for this creekshed. A watershed management plan provides an overall assessment of the watershed, identifies threats and opportunities, and develops an action plan with partner involvement, dates, and costs. In the case of Portage Creek, protection, not restoration, is the goal of the plan. Partners include the MDNR which is the largest landowner in the watershed with all of the state parks, local municipalities, the federal Conservation Districts that conduct outreach



Laura Rubin, Executive Director

and education to the agricultural community, and the some 7,000 residents of the creekshed. Priority actions include adopting new standards and policies for natural features protection, educating and informing the public about good stewardship for stream and lake of water resources, and protecting high quality lands.

Starting last fall, HRWC began a two-year project aimed at implementing top priorities. Kris Olsson is working with the seven municipalities in the watershed to inventory their "green infrastructure" – the natural areas and waterways that provide wildlife habitation, stormwater control, pollution filtering, recreation, and overall quality of life — and enact local policies to protect it, and reduce damage to the stream system from water runoff. Pam Labadie is surveying the households and residents of the creekshed. Based on the results of the survey, Pam will develop public education messages and materials for shoreline residents on watershed awareness and specific actions they can take at home to protect freshwater resources.

In the end we aim to create an awareness of water quality and watershed issues that will promote positive actions to protect and enhance the integrity of the Portage Creek watershed, and to implement long-term protection techniques to address land use changes that can threaten water quality. This project is our chance to show that protection of healthy watersheds is vitally important and worthy of federal funding.



To get there, we need help from all of you who live in the Portage Creek watershed – from good road maintenance to maintaining lake and river buffers; from cleaning boats to allowing rainwater to naturally soak into the soils in your yard; from recreational and park stewardship to invasive species removal; and, from land protection to regular septic care and inspection. Finally, we need you to talk to your local government officials and tell them lake and river protection is a priority. Come to a planning commission meeting and talk for three minutes at the beginning of the meeting. Let them know that high quality streams are important to you. Local government officials tell us that stronger protections are not a priority for their residents. We need your help in changing this perception.

If you live in the Portage creekshed and would like more details, contact us.

*Enjoy the spring and getting outdoors!*

— Laura Rubin

For Portage Creek Fact Sheets and the Management Plan go to [www.hrwc.org/portage](http://www.hrwc.org/portage).







# The Results are In!

## 2012 water quality monitoring shows mixed trends

2012 was a dry year for the watershed. No significant storms occurred after mid-April, and very little precipitation fell at all through the entire month of July. Flows in the river and tributary streams hit record lows in late July and early August. What effect did this dry spring and summer have on the water quality in the watershed? Results from HRWC's Water Quality Monitoring Program help answer this question.

The program had a banner year in 2012 with the greatest number of volunteers (49) trained and deployed to the most sites (36) across three counties. HRWC added 14 new sites in 2012 alone as the program expanded into Wayne County. This diligent corps of dedicated volunteers collected nearly 500 sets of water quality samples for analysis at municipal labs administered by the cities of Ann Arbor and Brighton and the Ypsilanti Communities Utility Authority (YCUA).

### Phosphorus Decreases

The state of Michigan does not have a numerical standard for phosphorus levels, but 50 µg/l is used for area lakes as a level to stay below in order to avoid serious algae blooms and fish kills. Concentrations of total phosphorus (TP) in monitored streams were roughly the same, on average, as the past two years. Wayne County streams (which include some that drain directly to the Detroit River) had the highest mean concentration at 100 µg/l, while Washtenaw County streams averaged 80 µg/l, and Livingston County streams were much lower at 30 µg/l. The portion of the watershed in Livingston County retains more wetland area (wetlands filter phosphorus), and a smaller developed or urbanized area than in Washtenaw or Wayne County.

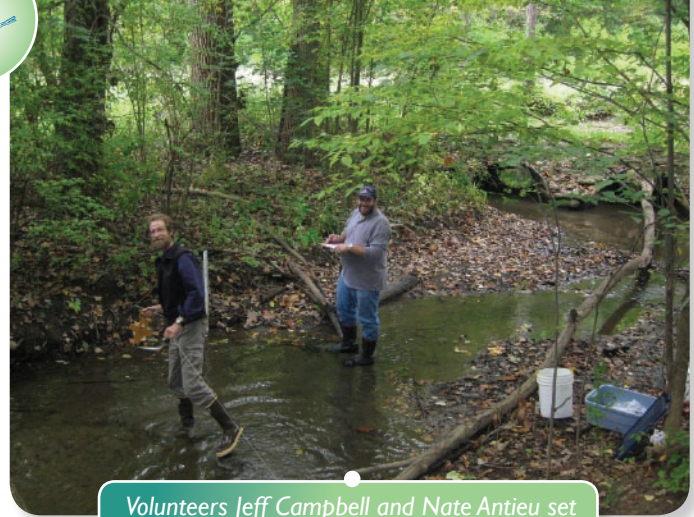
Mean stream flow, or discharge, was much less in 2012 than in previous years resulting in an overall "load" of phosphorus (i.e., the total mass of phosphorus moving downstream over a given period of time) from these streams that was lower than in previous years. Also, sediments (measured as Total Suspended Solids or TSS) were slightly lower on average this year. Fewer storms meant less erosion, or soil runoff, which may have also helped to keep phosphorus levels down, since phosphorus readily attaches to soil particles.

### Bacteria Still a Concern

Bacteria levels, as measured by *Escherichia coli*, continued to be high in several areas of the watershed during 2012. Levels regularly exceeded state standards for human health in most monitored tributary streams in Washtenaw and Wayne counties. Notable exceptions were Woods Creek, Fleming Creek, and the Huron River upstream of Ann Arbor. Efforts to identify specific sources of bacteria in Honey Creek in Scio Township were not particularly fruitful. Bacteria counts were high throughout the streams of Honey Creek, and genetic tracking showed that a wide variety of animals contributes to the problem (including humans).

### Stormwater Runoff Problem Persists

While the lack of major storms this season may have reduced the overall amount of erosion and other runoff pollution, tributary streams continued to exhibit unnatural flows. Streams



Volunteers Jeff Campbell and Nate Antieu set up to take measurements at Woods Creek.

throughout Wayne County (with the exception of Woods Creek) and the urbanized areas of Washtenaw County exhibited much higher peak flows following storms than would be expected from the size of their watersheds, and the flows returned to low flow much more quickly.

Notably, at the driest points in July and August, some smaller creeks stopped flowing altogether. Typically, unaltered perennial streams should continue to receive sufficient groundwater in-flow even through the drought experienced in 2012. Some of these flow characteristics also led to dissolved oxygen levels that were below state standards set to protect aquatic life. The streams in question are ones that were severely channelized (straightened and deepened), and the low water levels isolated sections from in-flow of oxygen-rich water, causing them to stagnate for long periods. Bugs, fish and other aquatic life will return to these creeks as flow returns, but they will have a difficult time sustaining a healthy, diverse population over the long term with such periodic oxygen starvation.

While a number of programs and projects to reduce stormwater runoff are encouraging, these results suggest there is still a long way to go.

— Ric Lawson





RiverUp! supporters celebrate the opening of the new portage at Superior Dam last summer.

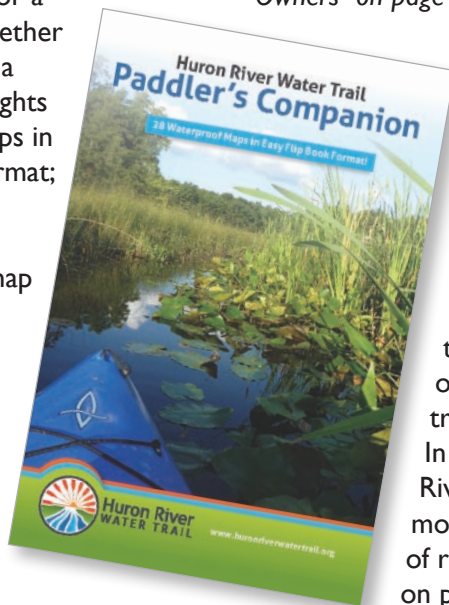
a canoe-accessible dock, gravel pathway, a durable, low maintenance launch, and way-finding signage. The next five to six access improvements are being planned for completion in 2013, mostly in the Ann Arbor-Ypsilanti section.

With great pleasure, HRWC announces the *Paddler's Companion*, a brand new waterproof book that is the essential guide for a trip on the river, whether for an afternoon or a multi-day trip. Highlights include 28 color maps in an easy flip book format; durable, waterproof construction with spiral ring binding; map key detailing amenities, hazards, and more; information for launches, liveries and links to other water trails; and stunning images from locally noted photographers. The *Paddler's Companion* will be available for purchase at [www.hrwc.org](http://www.hrwc.org) and at local retailers in early Spring.

### Improve River Health

RiverUp! continues to advocate for the clean-up and revitalization of the

DTE Broadway property in Ann Arbor and the Angstrom campus in Ypsilanti, and to lead discussions with private and municipal partners for both of those riverfront properties. Restoring river flows through improved dam management with dam owners and operators remains a priority, as well. To that end, RiverUp! partners successfully opposed for the proposed construction of a new low-head dam on the Huron, and HRWC hosted a successful workshop on Resources for the Small Dam Owner that offered useable information for the 25 dam owners and operators who attended (see "Resources for Dam Owners" on page 11).



### Turn Our Communities to Face the River

RiverUp! worked closely with partners committed to linking Huron River towns via a network of river and hike-bike trails and natural areas. In the next three years RiverUp! will leverage more than \$27 million of riverfront investments on projects from Hudson Mills Metropark to Lake Erie. Key among those investments is the Border-to-Border Trail in Washtenaw County (a non-motorized trail along the river from the border with Livingston County to the border with Wayne County) that

The Huron River Water Trail *Paddler's Companion* is available for \$10 at [www.hrwc.org](http://www.hrwc.org).



Detailed color maps for all 104 miles

complements the vision of RiverUp!; as such, Washtenaw County Parks & Recreation is a key collaborator. In the Ypsilanti area alone, RiverUp! is planting the seeds for a vibrant river corridor from Peninsular Park to Belleville that builds on the future community center on Water Street, the parks system, the water trail and Border to Border trail.

HRWC and its partners have been spreading the word about RiverUp! through presentations to planners, tourism groups, and paddling enthusiasts. New partnerships with Pure Michigan, local Convention and Visitors Bureaus and Downtown Development Authorities, MDOT and MotorCities National Heritage Area are yielding exciting projects and synergies within the watershed and to larger markets. For example, the Great Lakes edition of the magazine Long Weekends featured the Huron River Water Trail on the cover of its fall-winter 2012 issue. Check for updates on these projects and more at [www.riveruphuron.org](http://www.riveruphuron.org).

RiverUp! is funded by support from the Erb Family Foundation, Community Foundation for Southeast Michigan, Amherst and Janeth Turner Foundation, private individuals, and MotorCities National Heritage Area.

— Elizabeth Riggs





## 200 Years of Michigan Fish *continued from page 1*

areas identification and protection; 5) migration studies; 6) disease studies; and 7) fish sampling techniques. With the founding of IFR, fisheries management took steps towards more holistic management rather than management focused on maximizing commercial and recreational fish harvests. IFR used scientific principles to understand the life histories of fish – the why and how of fish life and reproduction and the management of habitat and populations.

Throughout this early era of fisheries research, managers and scientists continually formulated new ideas and improved methods. In particular, new stocking concepts and techniques evolved over time. MDC was no longer in favor of introducing new species of foreign game or fish food, which was a major change from the practices of the 19th and early 20th centuries. However, the MDC continued to move millions of native bass and perch to isolated inland lakes, and it continued to stock nonnative brown and rainbow trout.

For example, historically fish were stocked as fry, but more and more managers began stocking fish as fingerlings – young fish that had grown enough to be about the size of a finger. Research initially had shown that fingerlings were far more likely to survive to spawn than younger fish.

*Scientists were experimenting with the planting of adult-sized fish through the 1940's and this became the standard practice during the 1950's. 1947.*



Photo: IFR

By 1950, IFR had shown using creel surveys and marked fish that less than 2% of fingerling trout survived to be caught by a fisherman. Surveys after stocking legal-sized trout indicated that the return was much higher, and so stocking full-sized trout became a more common practice.

Stocking methods also changed after research showed that stocking itself might be harmful to naturally reproducing populations. Fifteen years after the founding of IFR, Fisheries Division chief F.A. Westerman presented a rather revolutionary idea: "The evidence... leads to the conclusion that stocking is unnecessary, uneconomical, or even harmful if the species suited to the environment are already present." While stocking is still widely used across Michigan as a fisheries management tool, it is typically done in a more thoughtful and rigorous way than what was done in the 19th century and most of the 20th century.

### A New Management Technique

IFR researchers and MDC field staff developed "stream improvement" technology in this era and used it as a tool to increase the total amount of fish that a stream could sustain.

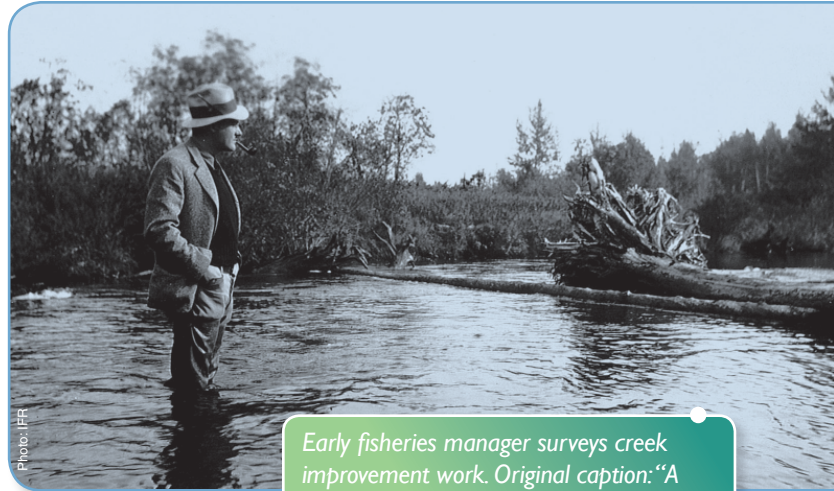


Photo: IFR

*Early fisheries manager surveys creek improvement work. Original caption: "A structure which will make the dry fly fisherman cuss. This cross log makes it practically impossible for him to fish." 1936.*

Stream improvement structures were contraptions made of wood and rock and placed into streams to provide additional fish habitat or alter the flow, substrate, or stream banks. For example, fishery managers could copy natural overhanging banks by putting wooden boxes in the stream and covering them with rock, or scour away excess sand by placing rock vanes or boards into the stream to constrict the channel size and increase water velocity. Stream improvements were primarily used in trout streams, although they were occasionally used in warm-water streams or lakes as well.

In Michigan, stream improvement work began in the early 1930's on the Little Manistee River, followed soon after on the Huron, the Rouge, and the East Branch of the Black. The MDC built several thousand structures in the first five years using Department labor as well as the Civilian Conservation Corps. At this time, fishery managers regarded stream improvements as a miracle that would transform recreational fishing. In instructions on how to properly build a stream improvement project, IFR founder Carl Hubbs stated that "any project, even when built improperly or in the wrong position in the stream,

*continued on page 6*



This “V” deflector (foreground) and “boom” bank cover (background) were installed in the East Branch Black River in 1931.

Photo: IFR

would still probably do more good than harm.”

Yet, as the principle aim was to quickly increase the quantity of habitat, little regard was paid towards maintaining the stream’s natural appearance. Improvements often consisted of wooden boards and heavy rebar that looked out of place in a stream setting. In addition, managers based their plans more on the expectation of what the structures would do rather than on hard evidence or experience. It wasn’t until many years later that research began to accumulate on whether the structures actually were favorable for fish. In hindsight, it is very possible that these structures were not doing anything other than concentrating the fish in the stream and making it easier for fishermen to catch them, and were not aiding reproduction in any fashion.

Stream improvement practices eventually improved. In 1967, Wisconsin scientists wrote “Guidelines for Management of Trout Stream Habitat in Wisconsin”, which managers and scientists were quick to dub “The Bible” of stream improvement. In this publication, the authors introduced a new theory on stream improvement. In contrast to what Carl Hubbs taught in 1932, they saw that improvement structures had the potential to damage the stream if built improperly. They put

a greater emphasis on using vegetation, rock, and other natural materials in constructing stream habitat, so that an improved stream looked less like a construction zone and more like a natural river. However, despite these advancements in stream improvement projects, their success was still varied. Research showed, as often as not, that the “improvements” were not doing anything in terms of actually improving conditions for fish.

However, the Wisconsin document went well beyond attempting to fix the 1930’s era of stream improvement. It also promoted ideas about preventing habitat degradation in the first place. The authors supported the position that managers should help the stream fix itself. They argued for using rock riprap to stabilize stream banks and erecting fencing around cattle crossings. If managers could reduce incoming sediment, a stream would be able to eventually flush excess sediments downstream with no additional human aid. In addition, they proposed that managers must begin to study the streams as a whole instead of as individual reaches. These concepts were novel in 1967 and started to make first steps towards our current approach of watershed management and stream restoration.

— Paul Steen



### COMING SOON!

Invasives attack! In the next part of this series, HRWC will examine how the sea lamprey and alewife forever changed the ecology of the Great Lakes.

### References:

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## Fish Kill on Ford Lake

Not all of the management techniques developed in this era are viewed positively by the framework of early 21st century environmentalism. Rotenone is a poison extracted from plants in the pea family that indigenous people often used for fishing. In the 1930's, IFR scientists developed rotenone as a tool that could remove, sample, or destroy fish populations. They performed studies to determine lethal doses for different fish species, sizes, and habitats. Scientists and managers used rotenone to sample fish where non-lethal methods would not be effective. However, rotenone was also often used to eradicate the "rough" fish (non-game large fish) in inland lakes, to reduce competition for newly introduced trout and other game fish.

In 1973, the Michigan Department of Natural Resources (DNR) used rotenone on Ford Lake in Ypsilanti in order to kill the common carp, suckers, and bullhead and open up

the water for stocked walleye, rainbow trout, and bass. The whole episode was a debacle. First, in order to make the limited amounts of rotenone more effective, upstream dams reduced water flow to Ford Lake in order to drop the water level by three feet, creating drought like conditions throughout the Ann Arbor and Ypsilanti reaches of the Huron River. Second, the organizers expected to have one thousand volunteers to help with the cleanup, but only twenty-five people showed up. Apparently picking up dead fish is not a very appealing volunteer event. The small number of people could not handle the tons of dead fish, and the rotting carcasses lined the lake for two weeks. A local government official eventually brought in prisoners to clean up the fish. Third, the dam operator on the downstream end of Ford Lake accidentally opened the dam, releasing the poison into Belleville Lake and unintentionally killing thousands more fish. All told, over 400 tons of fish died in the two lakes.

The day after the Belleville kill, an embarrassed DNR put a short-term ban on the use of rotenone. Ironically, Ford Lake has a thriving carp population today, showing that this fish is not so easily removed.



Photo: IFR

Fish managers stir up the witches brew of derris root (rotenone) and water in order to poison Clear Lake in Alcona County. 1938.

*With improved knowledge of fish and ecosystem science, fisheries managers were able to create more effective rules and regulations. Through 1930-1965, fishing licenses catch limits, closed seasons, and minimum fish sizes were introduced and enforced. All of these regulations were designed to prevent excessive harvesting and allow fish to reach adult size and reproduce successfully.*

### HIGHLIGHTS:

- 1931: The first recreational trout licenses were required (\$1.75 for adults), and the first catch limits (15 brown and 15 rainbow trout per day).
- 1933: The MDC established closed seasons for several species- times of the year that fishermen were not permitted to fish.
- 1935: People using dynamite on fish were given high fees (\$100-300) and/or jail time (90-120 days).
- 1939: Catch limits were placed on Great Lakes smallmouth bass (10 fish per day).
- 1945: Tougher catch limits were placed on trout (15 fish or 10 pounds), and limits were placed on panfish (25 per day).
- 1955: Snagging fish was deemed illegal (keep a fish after putting a hook through a fin or the body).
- 1959: Size limits were set on pike (20 inches).
- 1964: "Trout streams" were designated giving special restrictions on lures, catch limits, and size limits.
- 1965: Brook Trout become the State Fish of Michigan.

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.



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

HRR Design and Layout: S&J Design Studio

The Huron River Report, copyright 2013.

# 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, Debi Weiker.

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# HRWC Events and Workshops

MARCH • APRIL • MAY • 2013

**March 16, 1-3pm**

## Water Quality Training

*NEW Center*

Help HRWC measure the quality of the Huron River and its streams this spring and summer. Learn to collect water samples, measure stream flow and sample runoff from rain storms. You must first attend a field techniques workshop. Then you will be placed on a team based on interest and availability. No prior knowledge is necessary. We especially need volunteers willing to work in Livingston and Wayne Counties, and in Scio Township. REGISTER HERE: [www.hrwc.org/volunteer/water-sampling](http://www.hrwc.org/volunteer/water-sampling)

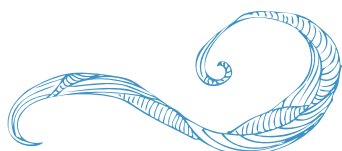
**April 6, 9am-2pm**

## Woody Debris Maintenance Workshop

*Green Oak Township Hall*

*10001 Silver Lake Road, Brighton*

New studies have shown that properly managed large woody debris (logjams) help reduce erosion, provide habitat for fish and wildlife, and are an important part of a river system's natural processes. Woody Debris Management (WDM) is the process of determining whether and how best to move, remove or add woody debris to a river. We will review the Clean and Open Method of WDM which gives guidance on how to manage logjams, preserving the benefits they provide while minimizing the problems they can create.



**April 17, May 1, May 15, 9am**

## Green Infrastructure Workshops

*New Center*

A series of Spring workshops will provide attendees with tools to work within their communities to plan, build and maintain Green Infrastructure to reduce the impacts from "grey infrastructure" (i.e. impervious surfaces and stormwater pipes). The series will address topics such as Overcoming Barriers, Economics and Funding, Green Policy Development, and Maintenance and Management.

DETAILS AND DATES: [www.hrwc.org/green-infrastructure](http://www.hrwc.org/green-infrastructure)

**April 20, 9am or 10:30am**

(lasts about 5 hours)

## River Roundup

*NEW Center and the watershed*

Join a small team with your friends and family for a unique activity. Collect a sample of the bugs and other creatures (benthic macroinvertebrates) that live in our streams.

REGISTER HERE: [www.hrwc.org/volunteer/roundup](http://www.hrwc.org/volunteer/roundup)



**April 28, 12pm or 2pm**

(lasts 2 hours)

## Bug ID Day

*NEW Center*

Discover the kinds of bugs volunteers found at the Roundup. Work with an expert to separate them into look-alike groups, identify them, record the data, and compare the results to last year.

REGISTER HERE: [www.hrwc.org/volunteer/id-day](http://www.hrwc.org/volunteer/id-day)

**April 25, 5:30-7:30pm**

## Annual Meeting

*Dexter District Library*

*3255 Alpine Street*

Join us for an update on HRWC programs including RiverUp! and the Huron River Water Trail. Our Board of Directors will provide a casual potluck dinner with our favorite grilled White Hots (hot dogs).

**May 11 and 12**

## Photo Workshop

Develop the nature photography skills you've always wanted and turn your artistic vision of the scenic Huron River and her natural areas into reality. Sign up today for one (or both) HRWC Photography Workshops, May 11-12 or October 19-20. Instructors Marc Akemann and Michael Seabrook.

DETAILS AND REGISTRATION:

[www.hrwc.org/photoworkshop](http://www.hrwc.org/photoworkshop)

**May 11, 10am-2pm**

## River Cleanup

Cleanups will occur near Dexter and Flat Rock this spring. Some boats will be provided. Bringing your own equipment is also welcome! Please RSVP to Jason at [jfrenzel@hrwc.org](mailto:jfrenzel@hrwc.org).

MORE INFORMATION: [www.hrwc.org/our-work/programs/huron-river-clean-up](http://www.hrwc.org/our-work/programs/huron-river-clean-up)





**May 11, 10am-4pm**

## Bioreserve Training

Independence Lake County Park

Get outside, meet new people, learn about local natural areas and help out HRWC's Bioreserve Natural Areas Assessment program! HRWC is seeking field volunteers to help inventory ecologically important natural areas in the watershed.

REGISTER HERE: [www.hrwc.org/volunteer/bioreserve-field-assessments](http://www.hrwc.org/volunteer/bioreserve-field-assessments)

## Rain Barrel SALE • May 18, 10am-3pm

Washtenaw County Service Center • 705 N. Zeeb Rd., Ann Arbor

Rain barrels reduce pollution, prevent flooding and help you save water and energy! Order the 65-gallon 85% recycled Rain Station (charcoal) online for the discounted price of \$75 (regularly \$99.99). Pick up your order on May 18. Limited quantities for sale on site that day. Barrels come with a diverter and all parts needed for installation.

[www.hrwc.org/rain-barrels](http://www.hrwc.org/rain-barrels) for more details.



# Our Regulated River

## Resources for dam owners and operators in the Huron

There are over 100 dams in the watershed, ranging from small, simple structures on a landowner's property to the massive French Landing dam impounding 1270-acre Belleville Lake. These dams vary on purpose, age, condition, regulations, management and type. Each dam has its own context and history. Some have clear owners and a source of funding, while others have multiple owners or no clear owner. Most have no source of funds for management or maintenance. No existing census has all of these variables captured for the dams of the Huron, and no single agency provides support to all dam owners.

Management of these dams is an important issue in the Huron River watershed. Proper management can help maintain more natural flows and aquatic habitat. Proper maintenance can keep people safe. Well-sited removals can help restore stretches of the river as flowing waters beneficial to the life the river supports. As such, HRWC is advancing several initiatives designed to provide a better understanding of dams in the Huron and resources necessary for owners to be good stewards.

### Much Improved Data

This summer, 95 surveys were sent to dam owners to populate a comprehensive database of dams in the watershed. A volunteer used Google Earth to conduct a virtual fly-over of the Huron and identified previously unrecorded dams. This effort surfaced 45 possible locations that will need further investigation. Between public records and returned surveys, HRWC now has a much improved picture of the location, status and ownership of the dams in the watershed.

### Staying Connected

HRWC also convened dam owners and operators of dams on the mainstem of the river. Though this group is working on the same river, with the same flows, communication among operations has been limited. HRWC is taking the lead to establish and facilitate regular communication among operators along the mainstem regarding everything from scheduled maintenance and timing of holdings or releases, to safety issues and emergency response.

*Big Lake dam is a smaller dam located in the headwaters of the Huron River.*



Oakland County Water Resources Commissioner's Office

Small dam owners make up both the largest group and the group that has the fewest resources available to them to help manage their dams. In response, HRWC hosted a workshop providing an introduction to responsible management of dams, maintenance needs and dam safety and options for dam removal. The State Department of Environmental Quality and several engineers with expertise in dams were on hand to provide information and answer questions.

HRWC will continue to improve the data on dams in the watershed and stay connected with dam owners and operators throughout the Huron. Dams have been a part of the Huron River landscape for more than a century now. A well managed and maintained network of dams is important to minimizing the negative impacts of these structures on river health and public safety.

– Rebecca Esselman



# H<sub>2</sub>O and Planned Giving

## Leave a legacy for the Huron River

The media has done an incredible job of informing us of the tenuous condition of our economy. The situation is one that Michigan residents have been well aware of for some time. Yet here in our state, we know that our natural resources are our most precious asset and commodity. Tourists travel miles to enjoy a beauty that we have learned to protect as well as enjoy. Yet how do we protect hearth and home, as well as our local jewel?

For HRWC's supporters, the alternative that will always prove to be effective, regardless of the economy, is to leverage the personal and philanthropic benefits of planned giving. It can transmit your values to future generations of family, friends and community. Planned gifts are popular because of the financial flexibility and tax benefits they provide. There are several options to help you make prudent gifts.

As you consider your financial and philanthropic priorities – income, investments, retirement and what you leave behind – you have a number of choices. Bequests are gifts made through your will or living trust. You can leave a specific asset or a percentage of your estate. You may leave your bequest unrestricted or designate a specific use. Any bequest provision can be modified in your will or living trust during your lifetime. Or consider a charitable gift annuity with HRWC which can provide you and/or another beneficiary with

stable income for life. You could receive an immediate income tax deduction. Charitable gift annuities typically enjoy unlimited deductions from federal and state inheritance taxes. A well planned bequest can even result in a larger estate passing to your non-charitable beneficiaries.

Regardless of the choice, it's a gift that benefits the river, the watershed and your future. Philanthropically, a planned gift can make an impact that you may never have dreamed possible. Imagine how almost 50 years ago the founders of HRWC must have envisioned the impact of their work. Could they then have imagined the cleanest urban river in Michigan? You can help ensure that the Huron River will be protected for generations of future conservationists and people who appreciate all the benefits of clean water and natural areas.

The secret to making your planned gift to HRWC is to determine what you need to accomplish personally and what you envision for HRWC and then let the planning begin! Like the River itself, there is something for everyone.

If you are interested, we have advisors that can help you explore the features and tax benefits that appeal most to you and best fit your individual needs. Contact Margaret Smith for further information. ([msmith@hrwc.org](mailto:msmith@hrwc.org) or (734) 769-5123 x 605).

— Margaret Smith



*"When my husband Mike and I revised our wills several years ago, we included a bequest to the Huron River Watershed Council. We chose to make that gift for two main reasons. First, we wanted part of our legacy to include helping the Watershed Council continue its important work, protecting and restoring the Huron River. And second, the Council has a long-term record of sound fiscal management and wise stewardship of financial resources. Therefore, we know our gift will be used wisely and effectively."*



— Janis Bobrin,  
HRWC  
Board Member



## \$16,000 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](mailto:rfoster@hrwc.org).





*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 November 2012 through January 2013.*

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