



Huron River Report

The Newsletter of the Huron River Watershed Council

Summer 2004

Bridges over the Huron p 7
OHM Business Highlight p 10
Water Friendly Golf p 11
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Planning for Hard Rains on the Horizon

Huron Communities Take Diverse Approaches to Phase II Storm Water Regulations

As its name suggests, the new Phase II storm water regulation is not something that local communities can implement overnight; nor is there a "one-size-fits-all" approach to meeting this set of rules put forth by the US EPA as required by the Clean Water Act. As many Phase II permit holders throughout the Huron River Watershed are discovering, coming up with a plan for reducing storm water runoff and managing storm water pollutants is an ongoing and iterative process. HRWC is involved with several coordinated efforts throughout the watershed to help communities understand these choices and assist with various components of Phase II planning efforts.

2003 when thousands of local governments across the country, including most of the Huron River Watershed's 74 county and local governments, were required to submit their permit applications to EPA (see "Phase II: Coming to a Community Near You?" in the Spring 2003 *Huron River Report*). In addition, some other large public landowners with separate sewer systems, such as county road commissions and school districts, are also required to have a Phase II permit. As a larger urban area, the City of Ann Arbor is regulated under Phase I of the EPA's storm water regulations and has been planning and implementing its own storm water program for the past nine



The Phase II storm water regulation is the next step in the EPA's efforts to preserve, protect, and improve the nation's waterways through local programs and practices to manage polluted storm water runoff.

photo:HRWC

PHASE II REDUX

Phase II was officially set in motion in spring

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Restorer™ Eco-Machines

Machines for the Restoration of Polluted Aquatic Environments

Is it possible to bring a dead lake back to life?

Is it possible to use natural biological systems to do it?

These questions came to mind when my colleagues and I considered the plight of the pond adjacent to Ocean Arks, where I was working on Cape Cod.

The fifteen-acre pond also abutted a landfill; twenty million gallons a year of contaminated wastewater flowed from the landfill into the pond. The water was contaminated with bacteria and laced with several of the EPA's priority pollutants. Pond conditions were especially bad in the summer when the oxygen content of the water at the

bottom of the pond dropped to zero and normally present bottom-dwelling animals were absent from many areas.

The pond was nearly comatose and needed a dramatic solution to bring it back to health. A water cleansing system based on the way that nature naturally functions had been designed by my colleagues and me for the treatment of sewage and septic tank wastes. That eco-machine was successfully treating wastes, but it was housed in a greenhouse. Would it be possible to create a floating version of the eco-machine?

Like the greenhouse system, the raft-based technology would have to be designed to house a diversity of life forms in a variety of specialized sub-environments. The "treatment cells" would have to support a diversity of microorganisms, algae and higher plants, including shrubs and trees,

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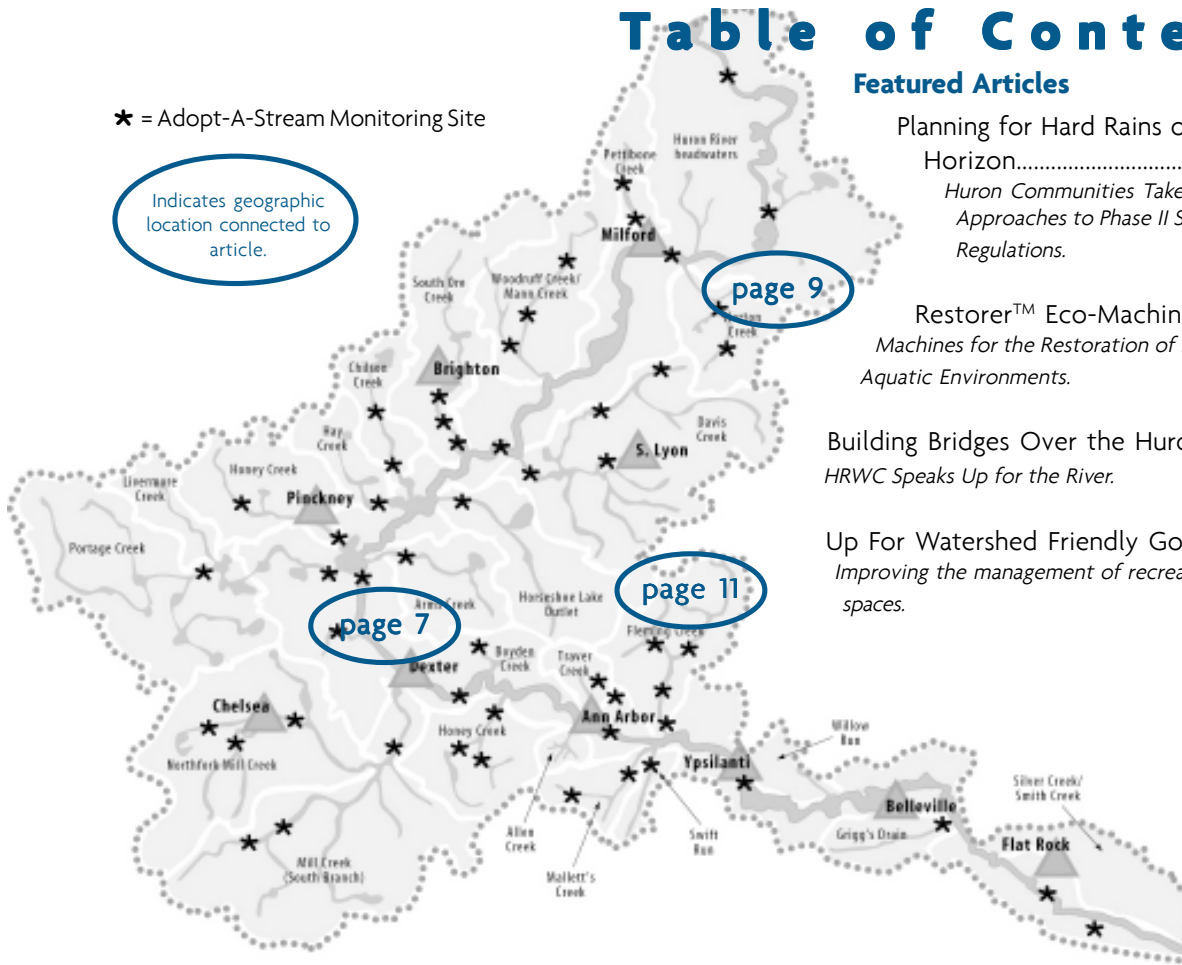


Canal Restorers™ float in the middle of the waterbody, treating water as it flows by. -Source: Ocean Arks International

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★ = Adopt-A-Stream Monitoring Site

Indicates geographic location connected to article.



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EVENTS

Saturday, June 5, noon-5 PM

River Day

Various locations along Huron River
 Call Ellen at (734) 769-5123 x1

Thursday, June 24, 5:30-7:30 PM

HRWC Executive Committee Meeting

NEW Center
 Call Laura at (734) 769-5123

Thursday, July 15, 5:30-7:30 PM

HRWC Board Meeting

Dexter Senior Center
 Call Laura at (734) 769-5123

Thursday & Friday, July 15 & 16

Invasive Plant Control Techniques Workshop

See page 8
 Call Lisa at (734) 769-6981

Saturday, July 17, 2-5 PM

Measuring & Mapping Training

NEW Center & nearby creek
 Call Adopt at (734) 769-5971

Sunday, August 29, noon-5 PM

Leadership Training

NEW Center & Nearby Creek
 Call Adopt at (734) 769-5971

Sat., Sept. 11, 9 AM - 3 PM

or 10:30 AM - 5 PM

River Round Up

NEW Center & Nearby Creeks
 Call Adopt at (734) 769-5971

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Thank You!back

More events and updates on the web at: www.hrwc.org

The **NEW Center** is located at 1100 N. Main Street in Ann Arbor. Call (734) 769-5123 or visit the HRWC website for directions.

Planning for Hard Rains on the Horizon

Huron Communities Take Diverse Approaches to Phase II Storm Water Regulations

continued from cover

years. Only a small handful of rural communities that do not contain any “urbanized areas” as defined by the Bureau of the Census are exempt from Phase II. While not all permittees are subject to the same timeline for completion of Phase II planning efforts, the countdown for most permit holders in the Huron River Watershed started in the Fall of 2003 when the MDEQ approved their permit applications.

Because no two communities have the same needs, resources, and issues to address, Phase II presents unique challenges and opportunities for each community. This is especially true in Michigan, which allows communities to follow either the EPA’s “jurisdictional” permit or a “watershed-based” permit that is unique to Michigan. While both permit types address the same basic requirements, each uses a distinct set of tools and criteria. Permittees that have opted for a jurisdictional permit must develop and implement a Storm Water Management Plan (SWMP) which addresses six specific criteria outlined by the EPA. Jurisdictional permittees only need apply the SWMP to portions of their community that are within urbanized areas.

As an alternative to the jurisdictional permit, the MDEQ developed an EPA-approved watershed-based permit that facilitates watershed-wide storm water quality improvements and requires a higher degree of cooperative interaction with surrounding communities. While the watershed-based permit addresses the same general criteria as the EPA’s jurisdictional permit, it does so through a different set of requirements. Instead of each community completing a SWMP, the watershed group works together to develop a Watershed Management Plan (WMP) submitted on behalf of all members of the group. A WMP is based on watershed boundaries rather than political boundaries and allows communities to develop a program tailored to the specific issues and needs of its watershed. The watershed group also submits a plan for involving the public in developing the WMP. Similar to the jurisdictional criteria, each member of a watershed

group also develops and submits individual plans for public education, illicit discharge detection, and a strategy for implementing the WMP within their community. Under a watershed-based permit, the permittee is responsible for implementing its program over its entire political boundary in the watershed, rather than just those portions that are in urbanized areas.

IT TAKES A VILLAGE

Regardless of which permit type a community chooses, most communities lack the resources and expertise to undertake compliance with Phase II regulations without assistance. Individual permittees and watershed groups in the Huron River Watershed are relying on various combinations of help from entities such as HRWC, private consulting firms, the Southeast Michigan Council of Governments (SEMCOG), and County Drain Commissioners.

In addition to the technical support and guidance offered by such groups, another critical component of preparing for Phase II is public input in the planning process and participation in implementation efforts. Public awareness and understanding of local storm water issues, as well as broad support for the proposed solutions, is essential to

successfully meeting the challenges of Phase II. To that end, each permittee has developed a plan for inviting all interested citizens and organizations to get involved in its Phase II efforts. You don’t have to be an expert in storm water issues; all that is required is an interest in protecting your local water resources and a willingness to share your opinions and ideas.

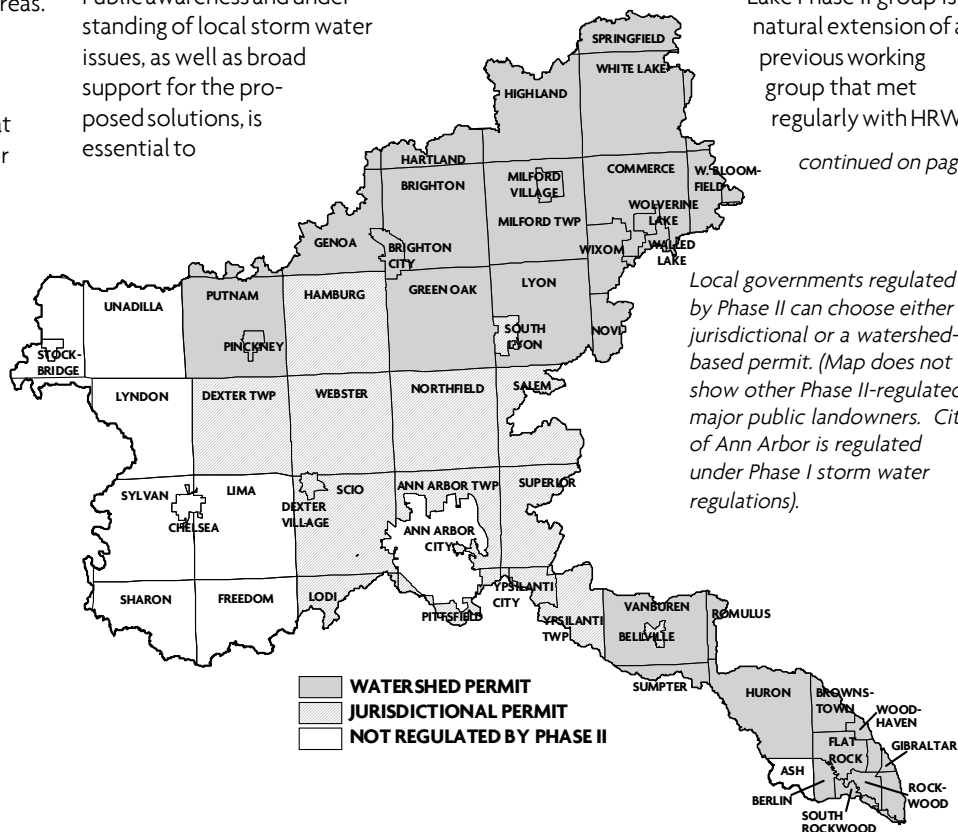
Throughout the Huron River Watershed, several clusters of communities and other permittees, roughly divided by counties, have customized their approach to meeting Phase II requirements through various combinations of technical resources and strategies for public involvement.

OAKLAND COUNTY EFFORTS

As a heavily urbanized area, all communities in Oakland County that are part of the Huron River Watershed are subject to Phase II regulations. With the exception of South Lyon, all of these communities have opted for a watershed-based permit. Nine of these communities have chosen to work together on Phase II efforts as part of the Kent Lake subwatershed, which sustains the headwaters of the Huron River. The Kent

Lake Phase II group is a natural extension of a previous working group that met regularly with HRWC

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Local governments regulated by Phase II can choose either a jurisdictional or a watershed-based permit. (Map does not show other Phase II-regulated major public landowners. City of Ann Arbor is regulated under Phase I storm water regulations).

Restorer™ Eco-Machines

Machines for the Restoration of Polluted Aquatic Environments

continued from cover

and they would have to provide internal habitats of water-cleaning animals, including fresh-water clams.

The First Restorer,™ powered by an electricity generating windmill and an array of solar panels, was launched in the fall of 1992. Up to 100,000 gallons per day of water from near the bottom of the pond were circulated through nine separate treatment cells.

Improvements in the pond's condition could be seen as early as the following year. A positive oxygen regime had returned to the pond, and the EPA priority pollutants were absent. By 1995 sediment depth had been reduced by over two feet, and there were large reductions in phosphorus, ammonia and organic nitrogen compounds. The overall health and biodiversity of the pond continued to improve. In 2002, after a decade of operation, the aging Restorer™ was removed.

Currently the pond has two windmills mounted on floats that oxygenate the water. It is our hope that this modest intervention is enough to sustain the revived pond.

Since that first experiment we have built Restorers™ in three other states and in China. One of the largest was installed in Maryland in 2001 on a nine million-gallon wastewater treatment lagoon that receives over one million gallons per day of high strength waste from a poultry processing plant. The Restorer™ had twenty-five thousand plants, comprising twenty-five

What is an Eco-machine?

An eco-machine (also known as a Living Machine) is a constructed device that borrows biological techniques nature has already perfected to cleanse contaminated water. The Restorer™ is an eco-machine that is physically located in the middle of a water body, rather than on land.

Eco-machines essentially replicate a river ecosystem, including the final filter of wetlands. But they house a higher concentration of the life forms that naturally purify water, in an enriched environment that maximizes the efficiency of their work.

Eco-machines have a series of treatment cells that are populated with hundreds of species of microbial, plant and animal life forms in ecologically engineered aquatic food chains. Contaminated water is pumped into the first treatment cell, where the living organisms begin the cleansing process, and then flows by gravity through the cells. In each

subsequent treatment cell, increasingly higher life forms become involved.

Wastes generated by the microorganisms, bacteria, algae, mollusks, fishes, flowers, shrubs, trees and other animals in one cell flow with the water and become food for the inhabitants of the next. In this manner, using sunlight as the primary source of energy, compounds are broken down and the contaminated water is purified.

In other words, eco-machines use science to speed up and enhance the age-old processes by which nature cleans itself. Eco-machines are able to degrade pollutants, assimilate nutrients, sequester heavy metals and break down various toxic organic compounds. In a pond, a Restorer™ “jump starts” the pond ecology, enabling organisms to metabolize nutrients in the pond. The Restorer™ helps the pond ecology repair itself by creating important habitat, adding oxygen and recirculating water within the pond, while increasing over-all biological diversity.

species of native plants, growing on it in special floating racks.

The Restorer™ provided three significant benefits to the poultry processing plant's waste treatment facility: (1) dramatically reduced sludge removal needs, (2) reduced electrical requirements, and (3) the facility

came into compliance with its discharge permit. Both the company and the wildlife and human users of the Chesapeake Bay Watershed are the beneficiaries.

Along a sewage-laden canal in the southern Chinese city of Fuzhou a similar Restorer™ technology was designed. The canal was putrid, filled with garbage, raw sewage and

continued on next page



Appearance of a canal before (left) and only two months (right) following the installation of a Restorer™ !

-photo: Ocean Arks International



Restorer Eco-Machines

Machines for the Restoration of Polluted Aquatic Environments

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a variety of wastes including fats and grease. The Restorer™ built to cleanse this canal was a half-mile in length. Its effect on the canal has been dramatic. Long gone are the putrid smells and the filthy canal. Now the water is quite clear and home to several species of Chinese fishes. The plants on the Restorer™ are host to butterflies and birds long missing from the inner city. An exciting fringe benefit of the cleansed canal is that there are plans to begin treating the canals of Shanghai in time for the 2008 Olympics.

My favorite Restorer™ story has taken place on the big island in Hawaii at an upscale resort. Restorers™ were designed to cleanse an unsightly, algae-laden five-acre pond in the middle of a golf course. The pond was filled with brackish or salty water.

The Restorers™ cleansed the pond water and then went on to greater heights. They now support the culture of marine animals for the resort. Currently the pond contains

80,000 Pacific white shrimp, 300,000 oysters and 60,000 fish. A former liability at the resort has become one of its major assets.

The future for the Restorer™ is expanding. I see them being widely used in fish culture. I am currently designing systems that combine marina docks for pleasure boats with Restorers™ so that harbor-front waters can be cleansed. The City of Toronto plans to build a Restorer™ on its waterfront, right at the heart of downtown. The goal is to make sections of the waterfront clean enough to meet swimming standards. If we can design a Restorer to do that, life on the water in our cities in the summer will never be the same.

- John Todd

Research and Design, Inc.
(508) 548-2545 or jtodd@cape.com

Dr. Todd is a Research Professor and Distinguished Lecturer at the Rubenstein School of Environment and Natural

Waiting for the next State of the Huron Conference?

It will be coming next Spring, 2005. Interested in helping, sponsoring, or organizing the event?

Call Laura at
(734) 769-5123 x2.

Resources at the University of Vermont, a partner in John Todd Ecological Design, Inc. and the President of Ocean Arks International.

REFERENCE:

Todd, J., E. Brown & E. Wells 2003. Ecological design applied. Ecological Engineering 20 (2003) 421-440.

Planning for Hard Rains on the Horizon

Huron Communities Take Diverse Approaches to Phase II Storm Water Regulations

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for two years to develop the Kent Lake Subwatershed Management Plan. Upon completion of the Kent Lake Plan, and in anticipation of upcoming Phase II requirements, these nine communities decided to continue working together and use the Kent Lake Plan as a foundation for working together on Phase II requirements.

While HRWC participates in the Kent Lake group as a supportive member, the group is also receiving help from the Oakland County Planning and Economic Development Department, the Southeast Michigan Council of Governments (SEMCOG), and the Oakland County Drain Commissioner. Together, these entities are assisting the group with developing the plan for public involvement and templates that each community can use for submitting their plans for public education and illicit discharge elimination. However, rather than pay an outside party to adapt the Kent Lake Plan to meet Phase II requirements for a WMP, the communities hope to do much of the work themselves with assistance from Oakland County and SEMCOG.

LIVINGSTON COUNTY EFFORTS

Six of the seven Livingston County communities located primarily in the Huron River Watershed are also working under watershed-based permits. Hamburg Township opted for a jurisdictional permit, believing it to be the more appropriate and cost-effective alternative, but still participates with the other communities in the Huron Chain of Lakes Phase II group.

The Livingston County Drain Commissioner (LCDC) coordinates monthly joint meetings of regulated communities in both the Huron Chain of Lakes subwatershed and the South Branch Shiawassee River subwatershed, just north of the Huron River Watershed. Drain Commissioner Brian Jonckheere is promoting collaboration between these two subwatershed groups as a means of greater efficiency and cost savings for all involved.

The LCDC, along with permittees from both subwatershed groups, have contracted with HRWC and Hubbell, Roth, and Clark, Inc. (HRC) to assist with various Phase II requirements. HRWC has developed plans for public involvement and public education

for both groups, and is also coordinating the development of the Watershed Management Plan for the Huron Chain of Lakes group. This WMP will be a

continued on next page



HRWC MEMBERSHIP HAS ITS PERKS

HRWC individual and business members can now enjoy canoeing or kayaking on the beautiful Huron and receive a 10% discount from Heavner Canoe Rentals. Rent a canoe or kayak from Heavner Canoe Rentals at either their Proud or Island Lake sites and paddle the scenic Huron for less money. Please check the Heavner Canoe website, www.heavnercanoe.com or call (248) 685-2379 for more information.

HRWC Board Establishes Endowment

The Huron River Fund

The HRWC Board of Directors has established the Huron River Fund, a permanent endowment fund held and managed by the Ann Arbor Area Community Foundation. Income from the fund will

eventually provide a stable source of revenue to help support our efforts to preserve the River.

The Board is now asking you to make a lasting commitment to the future of the river by making a contribution to the Huron River Fund. This will ensure safe drinking water, recreation and enjoyment for our children, grandchildren and all future generations.

Please review and consider making an enduring contribution for the benefit of HRWC, the River, and future generations of residents.

Information about the Huron River Fund is being mailed to members. If you have any questions or need more information please contact Ellen Offen at (734) 769-5123 Ext #1 or e-mail her at eoffen@hrwc.org.



White egret—photo: John Cramer

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Planning for Hard Rains on the Horizon

Huron Communities Take Diverse Approaches to Phase II Storm Water Regulations

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geographically expanded and updated version of the Brighton Lake Subwatershed Management Plan, which HRWC completed in 2002 on behalf of several of the current Huron Chain of Lakes communities. HRC is providing templates for members of both groups for illicit discharge elimination and for implementing the goals and objectives of both groups' Watershed Management Plans. HRC is also coordinating the WMP for the South Branch Shiawassee River group.

WASHTENAW COUNTY

Moving downstream, each of the 13 regulated communities in Washtenaw County have chosen to pursue jurisdictional permits. Each community will be developing its own SWMP and participates in regular Phase II meetings coordinated by the Washtenaw County Drain Commissioner's Office as a means of sharing costs and technical resources. These communities have been meeting since 1995 as partners in HRWC's Middle Huron Initiative, which focuses on reducing non-point source

phosphorus pollution. While each community will likely require help from a consulting firm in completing portions of their SWMP, they have jointly contracted with HRWC to develop their plans for public involvement and public education. The Washtenaw County Phase II group also shares a citizens advisory group as a means of involving the public in the planning process and plans to coordinate at least one training session for educating local government employees on storm water best management practices.

WAYNE AND MONROE COUNTY

In Wayne and Monroe Counties, 13 communities between French Landing Dam on Belleville Lake and the Huron's outlet into Lake Erie are working together as the Lower Huron Phase II group. Unlike other Phase II efforts in the Huron, the Lower Huron communities have less experience in coordinated watershed management planning, and are therefore essentially starting from scratch on Phase II efforts and the WMP. This committed group has contracted with HRWC to coordinate

monthly meetings of the Lower Huron group and to develop their Public Participation Plan and WMP.

WE WANT YOU!

Despite these varying approaches, one of the common denominators among all Phase II efforts in the watershed is the importance of involving all interested parties, including concerned citizens, in the planning process. Each permittee or watershed group is developing a different strategy for soliciting and incorporating public input and involvement, but all will include a series of public meetings and other opportunities for citizens to ask questions and share their concerns and on-the-ground knowledge of issues and conditions affecting their portion of the watershed. To learn more about Phase II efforts in your community or how you can contribute, watch for press releases of upcoming opportunities for involvement, contact your local government official, or call Chris at the Huron River Watershed Council at (734) 769-5123 x5.

- Chris Riggs

Building Bridges Over the Huron

HRWC Speaks Up for the River

BUILDING BRIDGES: BRINGING PEOPLE TOGETHER YET SETTING THEM APART?

The Huron Clinton Metropark Authority (HCMA) is proposing a new bridge crossing at the south end of the Hudson Mills Park in Washtenaw County (see map, right). As part of a county hike-bike path along the Huron, HCMA plans to build a path on the northwest side of the river from N. Territorial Road down through the edge of the golf course and eventually into the Village of Dexter. The HCMA has secured funds to pave the path down the west side of the river to the golf course, and they are proposing building a non-motorized bridge to connect with their present hike-bike loop in Hudson Mills. As this falls in the Natural River Zone, they are required to obtain a permit from the MDNR Natural Rivers Program.

HRWC opposes this permit on four grounds:

1. The bridge crossing violates the intent of the Natural Rivers Act and the subsequent Huron River Plan developed under the Act.
2. The bridge is not necessary (a connector bridge over N. Territorial Road from the proposed path to the hike/bike loop already exists).
3. We don't have the big picture on either the implications of this decision for future bridge crossings further downstream or the technical details to understand the value of a bridge in relation to its ecological impact.
4. The permit application process was flawed and the public input process was subverted.

WHY HRWC IS CONCERNED

HRWC, along with many others, worked hard in the early 1970s to designate the Huron as a Natural River under the Michigan Natural Rivers Act with a Country Scenic designation. This designation affords the river special protection and helps to ensure the preservation of a unique natural stretch—from Kent Lake Dam to Barton Dam—and some of its tributaries. Fundamentally, it requires certain setback and buffer distances from the river to assure a more “natural” look and greater protection from degradation.

THIS BRIDGE ISSUE

At their first meeting on the proposed

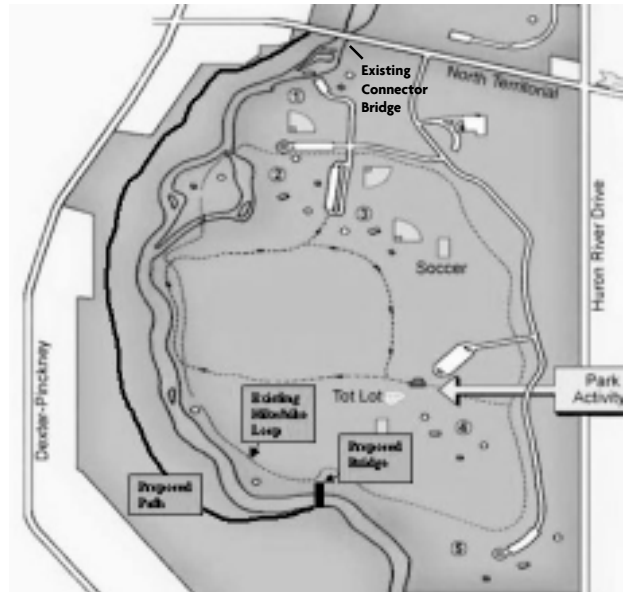
bridge, MDNR Natural Rivers Program Manager Steve Sutton informed the HCMA that a bridge crossing was a violation of the Natural Rivers Act and of the Plan developed under the act for the Huron. The plan allows no new bridges (motorized or non-motorized) in this area unless abutting an existing bridge/crossing. Indeed, since 1970 no new bridges have been built in the Natural River Zone.

In general, HRWC is supportive of the hike/bike system; however, we believe that a bridge over the Huron at this location is neither necessary nor a good idea, for several reasons. Foremost, we agree with the MDNR Natural Rivers staff that the bridge is a violation of the Natural Rivers Act and of the Huron River Plan. Allowing an exception to the Natural Rivers Plan for the Huron at this location will set a precedent for additional bridges further downriver from Dexter, of which there are many proposed in the hike/bike route.

We need to balance the interest in the hike/bike path with the needs of ecologically sensitive areas along the river. In other locations further downstream, a bridge may be essential to the linkage of the trail, and an exception may be warranted. HRWC is open to weighing this on a case-by-case basis. For this particular site, there is an alternate route across an existing bridge at North Territorial Road.

Second, it may do harm to the ecology of what is one of the highest quality rivers in Southeast Michigan. Both the construction activity and the permanent bridge may have negative effects on the river bed and possibly on the floodplain, and it may disrupt riparian vegetation and soils. This particular location is an especially rare, beautiful and natural stretch of the river and deserves protection.

The third reason for HRWC's objection to this bridge is the handling of the permit application process. From the moment the MDNR Natural Rivers staff expressed their



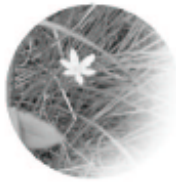
Approximate location of proposed bridge and path. —source: adapted by HRWC from HCMA

opposition to the bridge, the HCMA administration has sought ever-higher levels in the MDNR until they received a favorable response. The required public process for a permit like this would have been almost completely side-stepped had HRWC not pushed the issue. HRWC's intervention generated approximately two dozen comments to MDNR.

In mid-April 2004 the out-going MDNR Director Cool issued a statement that, despite his staff objections, he intended to issue the bridge permit to the HCMA. In a subsequent meeting the MDNR Deputy Director stated that the directive came from the Governor's office. A follow-up call to the Governor's environmental advisor Dave Debel indicates that the Governor's office and the MDNR want to show that the Natural River Act provides for flexibility. After last Fall's legislative attacks to the Natural Rivers Act the State is trying to protect the act from further political attacks and show that the Act is not unreasonable and that it provides for discretion in management. HRWC is upset about the precedent this bridge approval sets and thinks it undermines the strength of the Act.

Stay tuned for further action or notices in the Huron River Report or contact Laura at (734) 769-5123 x2 or lrubin@hrwc.org for more information.

- Laura Rubin



Natural Areas Management

Invasive Plant Control Techniques Workshop

July 15 and 16, 2004

Join us for this info-packed two-day course to learn proven techniques to control invasives and restore your natural area's native biodiversity.

Call Lisa at 734/769-6981 to request a brochure or visit our website at www.snre.umich.edu/stewardshipnetwork/training

Cost \$250 Additional people from same org and site \$150.



HRWC is a member of the Southeast Michigan Stewardship Network.

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Know Your Board Representative: Carol Woodruff

The representative for the City of Walled Lake to the HRWC Board of Directors is Carol Woodruff. Since 2001, she has worked for the City of Walled Lake as the Public Works Services Coordinator where she handles many different aspects of the public works department. Included in her main responsibilities is insuring that the City complies with its Phase II watershed permit. To carry this out, she makes information available to residents through the mail and the City's website, and she compiles information needed to comply with the annual permitting requirements.

Carol resides in Commerce Township with her husband and one-year old daughter. She has a Bachelor of Science degree from

Michigan State University. Having lived her whole life in the lakes area, Carol appreciates the importance of protecting Walled Lake's water resources; "Rivers, lakes and streams are valuable resources that need to be protected to insure that future generations can enjoy the same benefits as we do today".

If you have comments, suggestions, or questions, call Carol at (248) 624-4847 or call the HRWC office at (734) 769-5123. Also, call one of these



HRWC board representative for the City of Walled Lake, Carol Woodruff—photo: HRWC

numbers if you want to be more involved in the activities of the HRWC.

-Eunice Burns



Pumpkinseed fish
© 2000 Steve Gilzow

Thank You to Our Business Members

The Huron River Watershed Council would like to thank the following businesses for their business membership this quarter.

Patron —Pfizer Inc.

Member —Dominos Farm Corporation

The Huron River Watershed Council

The Huron River Watershed Council is a coalition of Huron Valley individuals, businesses and local governments established in 1965 under Michigan's Local River Management Act to inspire attitudes, behaviors, and economies that protect, rehabilitate, and sustain the Huron River system. The Watershed Council is a non-profit organization under section 501(c)(3) of the federal tax code.

If you enjoy this newsletter, please consider membership. Services of the Council include hands-on citizen education, technical assistance in policy development and direct river protection projects. You will find a membership form below. All contributions are tax deductible.

Yes, I want to help the Huron River Watershed Council protect and restore the Huron River.
Here are my 2004 member dues:

<input type="checkbox"/> \$5,000 Mink	<input type="checkbox"/> \$500 Blue Heron	<input type="checkbox"/> \$50 Friend
<input type="checkbox"/> \$2,500 Small Mouth Bass	<input type="checkbox"/> \$250 Mayfly	<input type="checkbox"/> \$30 Supporting
<input type="checkbox"/> \$1,000 Green Heron	<input type="checkbox"/> \$100 Steward	<input type="checkbox"/> \$___ Other

Name _____

Address _____ City, State _____ Zip _____

Phone _____ Email _____

Orchard, Hiltz & McCliment

HRWC Business Partner Highlight

Orchard, Hiltz & McCliment, Inc. ("OHM") has been an HRWC business partner for many years. OHM is very active in watershed planning and environmental programs, and its employees have taken on many spirited volunteer efforts.

OHM is a full service civil engineering consulting firm with over 180 full-time employees. The firm provides environmental reviews and recommendations for compliance with local ordinances, and state and federal codes, and has many projects within the Huron Watershed. OHM has prepared a stormwater Master Plan for Ypsilanti Township, which benefits Ford Lake as well as the Huron River and Stoney Creek subwatersheds. OHM is also assisting City of Ypsilanti and Ypsilanti Twp with Phase II permitting, and are working with several municipalities (Romulus, Huron Township) in the Lower Huron subwatershed group's Phase II efforts (see cover article). OHM worked with SEMCOG and Carlisle-Wortman to prepare a self-evaluation guide on Stormwater Management practices for use by all SEMCOG member governments.

OHM created its Environmental and Water Resources Group (EWRG) in 1998. The

EWRG is a specialized team of engineers that focuses on offering experienced technical knowledge to clients in the areas of water supply and distribution, sanitary sewer collection, storm water management, wetlands and watershed issues and environmental engineering matters. The EWRG enables OHM to provide computerized modeling and design of surface and sub-surface hydraulic processes including open channel hydraulics, groundwater flow modeling, water supply network analyses, and sanitary sewer analyses.

OHM's professional team is also involved with activities in the Rouge, Clinton, Ecorse Creek, Blakely/Frank and Poet watersheds. Since OHM serves only public sector clients, mostly local communities, it has made a real commitment in helping communities



Lewis Tripp, Elizabeth Clay and Michelle LaRose are collecting aquatic macroinvertebrates to learn about the quality of the Huron River during HRWC's semi-annual River Roundup in 2003. —photo: Waylon Thacker

improve the natural environment in which their citizens live.

Recently, during the WEMU annual fund drive, OHM offered a matching donation for any caller who could identify what watershed they lived in.

HRWC is very pleased to be associated with our friends at Orchard, Hiltz & McCliment, Inc.

- Ellen Offen and Bill Costick

HRWC's Annual Meeting

In April, HRWC had a wonderful Annual Meeting. The evening began with a guided walk of the Botanical Gardens observatory, led by Brian Klatt. Carl Luchenbach presented this year's topic of interest —Green Roofs.

OUTSTANDING CONTRIBUTIONS RECOGNIZED

At the Annual Meeting HRWC recognized the contributions of hundreds of volunteers. Four volunteers, in particular, were acknowledged for their outstanding efforts for the HRWC. HRWC presented these awards to Nancy Stokes, Gary Hochgraf, Evan Pratt and Tom Jenkins.



Tom Jenkins receives the "Laminar Flow" award from Ellen Offen.

Carl Luchenbach provides a fascinating presentation on the subject of Green Roofs.

Joan Martin presents Gary Hochgraf with the "That's Using Your Headwaters" award.



Up For Watershed Friendly Golf?

Improving the management of recreational open spaces.

Michigan has the most golf courses per capita in the U.S., and the Huron River Watershed has its share. While golf courses present a potential for habitat and open space protection, they also represent a potential source of pesticides and excessive nutrients to streams, lakes, and wetlands. In addition, they can attract flocks of geese (along with their droppings), and are vulnerable to nonnative plant invasions. To address these potential

Through collaborative efforts begun in 1991 with the United States Golf Association (USGA), membership in the Audubon Cooperative Sanctuary Program for Golf Courses has steadily grown to include more than 2,300 courses in all fifty states, Canada, and increasingly, around the world.

Golf courses provide significant open spaces and opportunities for needed wildlife habitat in increasingly urbanized communities across North America. At the same time, golf courses need to address environmental concerns related to the potential and actual impacts of water consumption and chemical and nutrient use on local water sources, wildlife species, and native habitats.

The ACSP for Golf Courses seeks to address golf's

environmental concerns while making the most of golf course opportunities to provide open space benefits. This education and assistance program promotes participation in comprehensive environmental management, enhancement and protection of existing wildlife habitats, and recognition for those who are engaged in environmentally responsible projects.

Of the estimated 16,000 golf courses in the United States, no two are alike. The ACSP is designed to help a golf course take stock of environmental resources and any potential problems, and then develop a plan that fits its unique setting, goals, staff, budget, and available time. The program has been tailored to a variety of different types of golf course properties, including: private clubs, public and municipal golf courses, PGA sites, 9-hole facilities, resort courses, and golf residential communities.

Audubon International provides information to help golf courses with: Environmental Planning, Wildlife and Habitat Management, Chemical Use Reduction and Safety, Water Conservation, Water Quality Management,

and Outreach and Education. By completing projects in each of these components of the program, the golf course member receives national recognition as a Certified Audubon Cooperative Sanctuary.

GOOD FOR THE ENVIRONMENT; GOOD FOR GOLF

Members find the program helpful, and that participating in the program:

- ◆ enhances the natural beauty of the golf course,
- ◆ reduces water use and the need for expensive chemical applications,
- ◆ promotes the course's positive, pro-active environmental achievements,
- ◆ educates golf course employees about environmentally friendly golf course management,
- ◆ provides on-going technical information, support, and guidance,
- ◆ results in financial savings on course maintenance, and
- ◆ improves job satisfaction.

In Michigan there are 14 Certified Audubon Cooperative Sanctuaries. In SE Michigan they are: Bay Pointe Golf Club, West Bloomfield; Fox Hills Country Club, Plymouth; Lakelands Golf and Country Club, Brighton; Northville Hills Golf Club, Northville; Salem Elementary School, Salem; and Tournament Players Club of Michigan, Dearborn.

In addition to these certified courses, we are aware of other watershed friendly practices on golf courses in the watershed. Look for informational signs when you are out on the tees this summer!

If you are a golfer or interested in improving the "watershed friendliness" of your local golf course, please advocate for the Audubon's Cooperative Sanctuary System. Audubon has an ambitious goal to have 50% of all golf courses in the United States enrolled and active in either Audubon Cooperative Sanctuary Program for Golf Courses or the Audubon Signature Programs by the end of 2007. Visit their website at www.audubonintl.org/programs/acss/golf or contact Laura Rubin at (734) 769-5123 x2 or lrubin@hrwc.org

- Laura Rubin



Fox Hills Country Club.

impacts HRWC looks to programs such as the Audubon's Cooperative Sanctuary Program (ACSP) for Golf Courses. Since 1991, Audubon International has been the leading organization to provide comprehensive environmental education and conservation assistance to golf course superintendents and industry professionals.

Volunteer Opportunity to Measure River Temperatures

The Adopt-A-Stream Program is seeking someone to measure the weekly temperatures in the Huron River in the Proud Lake State Recreation Area near Wixom, and in the Huron River at US-23 in Livingston County. It will take just a few minutes plus travel time once a week. If interested in either site, contact Joan at jmartin@hrwc.org or (734) 769-5971, before the end of June.

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Please examine your mailing label for your HRWC membership expiration date and use that as a reminder to renew. If there is no date, then you may not be a current member of the Watershed Council. Please consider HRWC membership. We need your support. Thanks.

The Huron River Watershed Council receives contributions via payroll deduction through EARTH SHARE of Michigan.



Thanks to All of Our Supporters!

Protecting the Huron River is a big job and we would be lost without the donations of time, talents, and resources from our dedicated volunteers and supporters. **We extend Special Thanks to:**

Noemi Barabas, Michael Benham, Gary Hochgraf, Tom Jenkins, John and Tui Minderhout, Don Rottiers, and Carrie Turner for attending to the transducers and measuring flow in Millers and Fleming Creeks.

Dave Brooks, Roberta Carr, Tom Jenkins, Graham Lewis, John and Sue Lillie, Khaled Mabrouk, Trevor McCauley, Evan Pratt, Esther Rubin, Morgan Sabol, Margaret Steiner, Nancy Stokes, Nancy Sweet, Sam Upton, and Chris Wilson for making the RoundUp work so effectively.

Jim Fackert for making cool classic signs for the river.

Ann Arbor Cyclery for donating 50 bicycle bottles for the River study.

Great Harvest Bread Company for a very generous and delicious donation of cookies and bread.

Roberta Carr, Edward and Marilyn Couture, and Rosalie Meiland for mailing a large number of letters at Rosalie's house.

Nancy Stokes for creating an educational display (including obtaining coupons) to teach people about phosphate in automatic dishwasher detergent.

Eric Miller for beautifully illustrating fat, oil and grease for HRWC's educational campaign (see Getting a Handle on Grease in the Spring 2004 Huron River Report).

Lilly's Garden Plants and Flowers for the beautiful flower arrangement that graced our table at this year's Annual Meeting.

Whole Foods Market for the delicious fruit and vegetable tray they donated for everyone to nibble on during this year's Annual Meeting.

Carl Luckenbach for his informational talk on Green Roofs at our Annual Meeting.

Brian Klatt for a tour of the Botanical Gardens at our Annual Meeting.